STUDENT-CENTRED CURRICULUM INTEGRATION IN PRIMARY SCHOOLS: IMPLEMENTING DEMOCRATIC PRINCIPLES AND PRACTICES.

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Abstract

Establishing more inclusive, democratic learning environments for students is receiving renewed attention in today's educational climate. In New Zealand, the Ministry of Education (2007) advocated that students should be "active, visible members of the learning community" (p. 34). Student-centred curriculum integration is a curriculum design theory founded on democratic teaching pedagogy and practices. This approach places students at the centre of learning, involving them in classroom decisions and curriculum planning. Research reveals that while challenging to implement, student-centred integration has significant benefits for learners academically, socially and attitudinally. To date, research has predominantly been conducted internationally and has largely been confined to middle school or intermediate level.

The aim of this study is to help redress the research gap by contributing to knowledge relating to the primary school sector. This project looks at what happens when teachers explore the democratic principles and practices inherent in student-centred curriculum integration. Past research indicated teachers found the power-sharing pedagogy challenging to implement, hence the project's initial exploration of small democratic practices.

Participatory action research (PAR) was considered the most appropriate methodology for this qualitative study as it concurred with the democratic pedagogy which underpinned the research issue. PAR allowed three novice teachers the opportunity to pose their own research questions and reflect on their practice. Mixed methods were used to collect data with interviews, informal discussions, focus group meetings, photographs, observations, and student work samples included. Case studies were utilised to provide an explanation of events.

Findings from this study indicate that the implementation of student-centred curriculum integration provides a relevant, engaging and equitable learning environment for primary school students. The research revealed useful implementation strategies for teachers interested in adopting a more democratic teaching pedagogy. Strategies included taking time to establish democratic learning environments, involving students in classroom decisions, acting on students' suggestions and asking empowering questions. This initial foundation provided the skill base and confidence which led teachers to plan collaboratively with students. This thesis therefore argues that student-centred curriculum integration is feasible in the primary-school setting and that the educational and social benefits indicate the approach justifies further research.

Acknowledgements

This thesis is dedicated to my mother Joan Brough and my father Alan Brough, who have been my most avid supporters throughout my academic pursuits. My mum has been my bouncing board, my editor and my friend, becoming so immersed in my educational journey that in my mind's eye she will always stand beside me as I wear my cap and gown. My thanks go posthumously to my father, who shared my love for children and my passion for teaching. During my career he worked beside me in my classrooms encouraging and supporting the children I taught.

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Chapter One

Introduction

Preamble

Rain is pounding on the windows outside Room Six; it is a wet lunchtime and the nine and ten-year-old children have spent the last hour together in their small prefabricated classroom. Items are strewn across the room and tempers have flared. Students have been reprimanded for boisterous behaviour by the duty teacher and are consequently subdued, recognising they have broken their teacher's trust. Children are peppered around the classroom, some sitting on the mat, others standing and some seated at their desks. An intense discussion begins on what happened during lunchtime. The children decide they need to call a meeting to determine what caused the problems and how they could be avoided in future. Listening attentively to each other's opinions, the students determine boredom was the issue. Together they decide that if they had more to do, future problems would be prevented. Lists of potential clubs are created including hip hop, chess, cards and board games. The class write a list of behaviour expectations and consequences. Toni, their teacher, arrives from lunch as her young students are in the midst of this process (Phase 2, Toni Taylor case study, Chapter 4).

The scenario described above is taken from one of three classes participating in this study. The incident is an example of student empowerment, an aspect central to this enquiry. Children in Room Six had been empowered to take responsibility for their actions, solve issues and make decisions for the common good. Student decision making extended beyond resolving classroom issues to also include students in collaborative curriculum planning.

The focus of this project was student-centred curriculum integration, a curriculum theory where democratic pedagogy is lived in classrooms and curriculum is collaboratively planned with students. The most complex versions involve students throughout the entire planning process, from the selection of themes to the planning of learning and assessment. This project has a values orientation because the pedagogy underpinning the teaching questions traditional power relationships in classrooms. Consequently, my research orientation assumes a critical theorist perspective. Carspecken (1996) describes critical theorists as researchers who are values-driven, often feeling the need to research for the betterment of society, the oppressed and downtrodden. In schools it is often the children who are oppressed as their voices are seldom heard when it comes to important issues concerning their learning. The values orientation is not the exclusive rationale for engaging in this project. A number of additional justifications can be made for further research into this democratic pedagogy.

Inquiry is further warranted, as research to date has suggested that the approach has significant benefits for learners. These include enhanced achievement (Nolan & Mckinnon, 2003; Vars, 1997, 2000), strengthened student-teacher relationships (Bartlett, 2005a, 2005b), heightened curriculum relevance and engagement (Hargreaves & Moore, 2000; Harwood, Wiliamson & Wilson, 2006), reduced truancy and more interconnected learning (Bartlett, 2005a, 2005b). It is important to note that research is fairly scant at primary-school level, with research predominantly found at early adolescent level. In addition, it is largely international. As a primary-school educator the empowerment of younger students is of particular interest to me. Hence, this project is focussed at primary school level in an attempt to redress this research gap. The project also accords with recent revisions to *The New Zealand Curriculum* (Ministry of Education [MoE], 2007) which advocates a more facilitative approach to curriculum delivery where students are involved in genuine decision making with competencies and values central to curriculum.

The final justification to be discussed is children's rights. The United Nations Convention on Children's Rights (1989) stated explicitly that children have the right to freely convey their opinions in all matters affecting them and to have their viewpoints taken into account. Hence, research into more empowering forms of curriculum design is defensible.

The project's aim was to explore student-centred curriculum integration's implementation in primary schools. Hence my research question:

> *What happens in classrooms where teachers are attempting to incorporate the democratic principles and practices inherent in student-centred curriculum integration?*

The question was strategically broad, allowing participants to scope research issues of interest. Within this central question it was "*anticipated"* teachers would examine such issues as: *"How might they set the scene for student-centred curriculum integration?" "What strategies might they use for raising student contribution levels?" "What decisions might be made with students rather than for students?"* and *"How might teachers increase student contribution to curriculum planning?"* The word anticipated is used as participants were viewed as co-researchers throughout this study and consequently set their own research questions.

The methodology chosen was participatory action research. A review of the literature revealed this was the most suitable methodology for the issue and research context. Emancipatory research design offered teachers opportunities to research their own practice, reflect and then explore further actions based on new understandings. It was anticipated a nine-month timeframe would be required to explore this complex form of curriculum delivery. The three participants had expressed a previous interest in this enquiry and were all familiar with the theoretical underpinnings, having completed a university paper in curriculum integration.

My own impetus for this research can be traced to my personal experiences as a student at school. As a child, school failed to engage me, and consequently I performed well below my potential and experienced an overwhelming sense of failure. Years later, my love for children saw me return to the classroom as a teacher. Influenced heavily by my own experiences, I believe with a passion that learning should be purposeful, relevant and fun. Students ought to be consulted about their learning, and treated with respect. Hence, in my own teaching, curriculum was framed within topics and issues that were of interest to children, and I sought student input wherever feasible in an attempt to enhance student understanding. Now, as a teacher educator at the University of Waikato at Tauranga, I lecture in curriculum integration, a paper that espouses this kind of teaching pedagogy. Despite student teachers claiming they wish to pursue this approach in the future, few do. Many find the prospect too daunting, saying they just don't know where to begin. As provisionally registered teachers they are also hesitant to stray from the status quo. These issues, along with a research gap at the primary-school level, provided impetus for my research.

Outline of Chapters

Chapter Two outlines literature on curriculum integration. This review will show that two different perspectives exist: subject-centred curriculum integration and student-centred curriculum integration, each underpinned by distinctly diverse pedagogy. The review will focus on student-centred curriculum integration which is founded on democratic principles and practices - the focus of this project.

Chapter Three outlines the methodology and methods used. It describes the critical-theory conceptual framework that underpins the study, and justifies selection of participatory action research as a methodology. Methods utilised to examine the research question are explained, along with clarification of the fitness for purpose. Subsequent

sections depict the data interpretation and analysis process followed by a discussion on authenticity and trustworthiness. The chapter concludes by outlining the ethical considerations of the project.

Chapter Four presents the findings, which are written in the form of three case studies. A chronological narrative is provided, structured around the action-based research phases. Included are results from semi-structured interviews, focus group meetings, continuum reflections, discussions, observations, and classroom actions.

Chapter Five discusses the five interrelated themes which emerged from within the research. Discussion is structured around these themes of: “Thinking Democratically – Pedagogy and Practice”; “In-depth Questioning”; “Building a Sense of Community through Shared Decision-Making”; “Co-constructed Curriculum” and “The Challenges of Student-centred Curriculum Integration”. The chapter concludes with a discussion on social improvement.

The final chapter, Chapter Six, presents a discussion on limitations, implications and recommendations. Limitations are outlined initially, followed by the presentation of implications and recommendations made in light of the five key themes identified above. The chapter concludes with professional development considerations, and suggestions for future research.

Chapter Two

Literature Review

Introduction

A substantive literature review is required in order to investigate the research question:

> *What happens in classrooms where teachers are attempting to incorporate the democratic principles and practices inherent in student-centred curriculum integration?*

Firstly, I begin with a discussion of what is meant by curriculum integration, while drawing the reader's attention to the confusion and ambiguity that plagues current discourse. Historical and contemporary perspectives are examined with the two major categories, subject-centred and student-centred integration discussed. Significant attention will be focused on the latter category since this meshes best with the nature of this inquiry. Similarly, as the research question explores the democratic principles and practices of student-centred curriculum integration, these will be outlined. Principles include: relevant learning themes, co-constructed curriculum and the teacher role. A discussion on teaching process is provided to exemplify the principles in practice. I conclude by examining the benefits and challenges of implementation.

What is Curriculum Integration?

The word 'integrate' is derived from the Latin word *integrare* which means to make whole. When attempting to 'make whole' the curriculum, little consensus is evident on how integration should occur or what it should look like; rather a plethora of theories, definitions and models are

revealed. Thematic/multi-disciplinary, interdisciplinary (Drake, 1991, Jacobs, 1989), transdisciplinary (Drake, 1991), cross-curricular (Barnes, 2007), fused, correlated, core (Vars, 1991), immersed and networked (Fogarty, 1991), are a few of the many descriptors and organisational frameworks used within the generic term “curriculum integration”. Lack of consistency is viewed by advocates and critics alike as a major stumbling block, which inhibits constructive dialogue, professional development and effective implementation (Beane, 1997; Fraser, 2000; Gehrke, 1998; George, 1996; Hinde, 2005; Kysilka, 1998). It has been suggested that curriculum integration is whatever someone decides, provided it has some form of “connection”, and that in practice it is as varied as any group of cooperative human brains and bodies (Barnes, 2007; Kysilka, 1998).

Despite debate, different models of curriculum integration generally fall within two central categories: subject-centred, where learning areas or discipline knowledge is foremost; and student-centred, where students are crucial to curriculum construction and democratic practices are advocated. Different standpoints concerning the principal source of curriculum and variations in pedagogy distinguish these two categories. It has been argued that confusion stems from a lack of pedagogical understanding concerning the historical theories that underpin the various integrated models (Beane, 1997). Dowden (2007a) suggested this is exacerbated by the proliferation of new and ill defined models. Confusion is not reserved for international settings, in Aotearoa New Zealand a Ministry of Education (1997) project revealed eight different integrated approaches within nine schools with practices varying in interpretation and complexity. A more recent Curriculum Stocktake (McGee et al., 2004) showed the majority of teachers viewed curriculum integration as multidisciplinary, failing to discern the student-centred pedagogy that distinguishes approaches. In an attempt to differentiate between the two central categories I begin this review by examining integration’s historical foundations before discussing contemporary perspectives.

Historical Background

The historical underpinnings of subject-centred, or multi-disciplinary integration, can be traced back to the Herbartian perspective of *correlated* curriculum developed in the late nineteenth century. Herbartians were educational reformers who subscribed to the German philosopher Johann Herbart's theories, which questioned the notion of traditional single subject curriculum delivery. Herbartians believed that the child's ability to make connections across disciplines was the key to intellectual growth. This gave rise to the concept of *"correlation"* across disciplines, a term which is still used to describe efficient distribution of subject matter (Dowden, 2007a; Grossman, Wineburg & Beers, 2000). Different correlation methods were explored during the late 19th century which saw a wave of multi-disciplinary or thematic units created in schools.

Student-centred curriculum integration has an equally long history which stems from Dewey's work at the Chicago Experimental School in the late nineteenth century. Dewey (1916, 1936, 1938) theorised that integration was far more than simply correlating subject matter. He proposed a radical student-centred curriculum, where students actively engaged in subject matter through experiences. He suggested the curriculum should include both personal and social integration. Personal integration involved participation in rich problem-solving experiences, the *learner* building on, and integrating each successive experience. Dewey stressed the importance of learning by doing, making subject material meaningful, and motivating learners. Social integration incorporated individuals into democratic society, with schools viewed as miniature communities where students work collaboratively in order to solve real-life problems.

The progressive movement built on Dewey's theories developing the "core curriculum" (1930/40's). Vars (2000) described the approach as "a curriculum design in which teachers and students jointly plan, carry out, and evaluate learning experiences, focused on problems or issues of genuine significance both to learners and to society, and consonant with

the purposes of education in a democratic society" (p. 77). Students were perceived to be constructors of knowledge rather than consumers. The core curriculum formed the foundation for contemporary perspectives of student-centred integration.

Having discussed the historical underpinnings, the following section will discuss contemporary perspectives. While it is acknowledged there are a number of substantial contributors in the field (Alberty, 1938; Barnes, 2007; Drake, 1991; Fogarty, 1989; Wallace, Venville, & Rennie, 2005), this review will focus on the theories and models of Beane (1997), Jacobs (1989), and Vars (1991) who are arguably some of the most influential writers in the field.

Contemporary Perspectives

Beane (1997) has been one of the most prolific writers on student-centred integration. His integrated curriculum theory draws heavily upon the works of Dewey, arguing that true integration requires democratic, student-centred teaching practices. Beane emphasised that he was not concerned with the trivial pursuit of discipline overlaps erroneously referred to as integration. He draws upon collaboratively identified themes taken from life itself as it is lived and experienced. The issues and themes generated by both students and teacher become the curriculum itself; discipline knowledge is subsequently brought into play within the context of the problem. At the most sophisticated level, themes are not pre-determined by the teacher, rather they are significant issues that arise as a result of children's curiosities, questions, or concerns. He suggested life's problems do not come neatly packaged into separate curriculum areas, and that today's curriculum fails to address many contemporary issues (Beane, 2005). He believed critical inquiry into real issues helps young people develop an understanding of themselves and their world, and where appropriate, allows opportunity for social action. Beane (2002)

referred to children investigating poverty, environmental issues, wellbeing, and living in the future.

A central tenet of student-centred integration is participatory or co-constructed planning, which Beane considered essential in order to redefine power-relationships and provide democratically appropriate curriculum delivery. Others described this process as “negotiating curriculum” (Boomer, 1996; Cook, 1996; Fraser, 2000). Student input permeates the entire process from planning through to assessment. In Beane’s (2005) more recent work, scant reference is made to the generic term “curriculum integration” instead he referred to “teaching the democratic way” and “democratic teaching practices”.

Beane’s theory as described in his 1997 text involved four interrelated categories: The integration of experience, social integration, the integration of knowledge, and integration as a curriculum design. *Integration of experience* involves unforgettable learning experiences which build on the learners’ current schemas. These experiences should be so memorable and enriching that they become part of the learner, enabling knowledge gained to be transferred into new situations. He quoted Dewey (1938) who stated:

> Almost everyone has had occasion to look back upon his school days and wonder what has become of the knowledge he [*sic*] was supposed to have amassed during his [*sic*] years of schooling … but it was so segregated when it was acquired and hence is so disconnected from the rest of experience that it is not available under the actual conditions of life. (p. 48)

A second dimension is *social integration*. Beane (1997) suggested that co-constructed curriculum based around personal and social issues, is democratic. He advocates shared values, with students and teachers negotiating and debating challenging issues and working together for the “common good” (Dewey, 1916, 1938). Beane contended that relevant

issues and democratic curriculum are seldom present in current conversations on integration. He criticised prescribed traditional subject arrangements which, he believed, are a persistent source of inequity.

The third dimension is *integration of knowledge.* This relates to the application of pertinent knowledge without regard for separate subject-area boundaries. Students investigating significant issues possess a genuine desire to seek out pertinent information requiring them to draw upon current discipline knowledge and knowledge from what Beane calls popular culture.

The final dimension is *integration as a curriculum design* which draws together the previous dimensions which embrace democracy, dignity and diversity. The necessity for these three aspects to be combined distinguishes it from other approaches. Although many advocates of curriculum integration fully embrace Beane's theories, there are others who do not adopt it in its entirety. Nevertheless, similar pedagogical practices are evident throughout other models such as Vars' unstructured core curriculum (1997), Drake's transdisciplinary model (1998) and Jacobs' (1989) complete integration.

One educator who concurred with Beane's theory was Fraser (2000). She contended that many New Zealand teachers confuse thematic teaching (often referred to internationally as "multi-disciplinary") with curriculum integration. Thematic curriculum, she asserted, differs from genuine integration in significant ways. Unlike curriculum integration, teaching centres on a topic that is usually identified and pre-planned by the teacher. This topic is then considered through the lens of each curriculum area with objectives and assessment predetermined. The crucial difference she identified between thematic teaching and authentic integration is that the thematic approach does not begin with a personal or social issue of concern, neither does it entail a fully negotiated learning process. Genuine integration involves students and teachers debating and clarifying the issue, establishing prior knowledge, posing questions, suggesting possible investigations, identifying anticipated skills, and

considering assessment. Fraser (2000) and Beane (1997) have expressed concern that thematic units are viewed as a stepping stone on an integration continuum. They believe this perspective hinders the development of effective pedagogical practice. They argued that thematic approaches are not integrated curriculum as they lack the democratic process.

Continuums are frequently utilised by educators who adhere to more than one approach to integration (Drake, 1993; Fogarty, 1991; Jacobs, 1989). Different models are placed along a continuum in order of complexity ranging from simple discipline-based arrangements, to the more sophisticated models. Rather than steps to progress along a continuum, Kysilka (1998) suggested the continuum should be viewed as a vehicle to help teachers reflect on practice, offering a source of guidance for determining how they might do things differently. Jacobs (1989) concurred, suggesting a range of integrated options placed along a continuum (Figure 1).

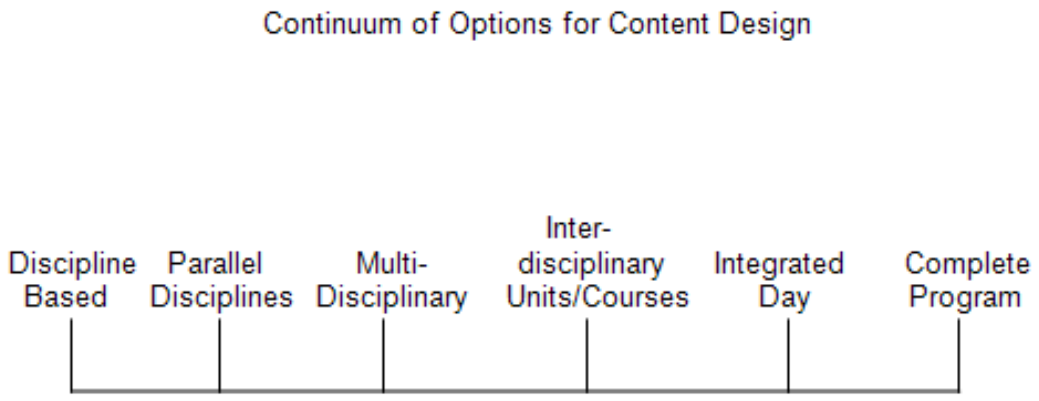

Figure 1: Jacobs' (1989) continuum options for content design (p. 14)

Jacobs (1989) wrote what is arguably one of the most influential texts on integration which she referred to synonymously as *interdisciplinary curriculum*. Unlike Beane, Jacobs presented "design options" which increase in sophistication from simple integration to more

complex designs. The designs predominantly fall under subject-centred versions of integration although aspects of student inclusion are evident in her final two models. The first of six is *discipline-based*, referring to learning within a single subject. No attempt is made to integrate, and subjects are taught in separate blocks throughout the school day. She suggested this model is highly efficient as it meets curriculum demands and provides students with specialised skills and concepts. The second, *parallel-disciplines* involves the simultaneous teaching of related ideas across the disciplines. In high schools this means teachers synchronising similar themes. For example, while the social studies teacher teaches World War II, the students in their English class may be reading *My German Soldier*. The third design option is *Multidisciplinary*, which combines *related disciplines* through a central theme or issue. This requires teachers from similar fields of knowledge planning units together. This approach may also result in complementary disciplines combining to form new courses. *Interdisciplinary* is next; this option involves themed units designed to naturally connect across the *various disciplines*. Every attempt is made to integrate teaching across a wide range of disciplines. Jacobs suggested this model does not replace separate discipline teaching, but offers a motivating learning experience for a fixed period of time. The fifth model is the *integrated day*, which originated through the British Infant School movement in the 1960s. The full day programme is based on children's interests and needs rather than having the content determined by the state syllabus. Jacobs (1989) suggested "motivation is high with this approach because the areas of study are directly linked to the children's lives" (p. 17). Jacobs' last model is called *complete integration* which she suggested is student driven, as the curriculum is gleaned from children's experiences, needs and interests, perhaps bearing a slight resemblance to Beane's (1997) approach.

Vars (1987) is the final theorist to be discussed. He identified three integrated designs, *correlation, fusion* and *core* with each model increasing in complexity. The simplest is *correlation* whereby teachers from several subject disciplines plan together using a central theme. In

primary school, a single teacher may correlate several subjects during the planning process. Teachers may make the correlations explicit or expect the children to recognise the connections themselves. *Fusion* is the second; this separates discipline barriers further by combining the content of several subjects through the use of a central theme. This could be likened to Jacobs' (1989) multidisciplinary option. The final design, favoured by Vars, is *core;* Vars stressed that this design differs markedly from those already discussed. Like Beane (1997) he makes reference to the influence of the progressive education movement and the core curriculum with its strong emphasis on student-centred approaches. *Core* begins with the needs, problems and concerns of students, and the society in which they live. Pertinent subject matter is then brought in to help students address the issues. Within *core* lies a more sophisticated version described as *"unstructured core"* with students and teachers jointly planning units of study; the prerequisite is that topics are worthwhile and developmentally appropriate.

The preceding discussion of leading theorists Beane, Jacobs and Vars has exemplified some of the theoretical stances and terminology that exist within the field. In summary, Jacobs suggested a broad range of models, most involved a subject-centred or multidisciplinary approach with only a few inviting student inclusion. Vars recognised three categories of integration, but subscribed to the *core* approach because of its student-centred pedagogy. He criticised Jacobs for failing to pay sufficient attention to learners needs and contributions (Vars, 2000). Beane's model offered what is arguably the most comprehensive student-centred model with student issues and participation as central features.

My own position favours student-centred approaches to curriculum integration and aligns most closely with Beane's perspective, in particular his later writings, where he promotes the advancement of democratic practices wherever and whenever feasible (Beane, 2005). The creation of democratic classrooms, the use of relevant learning contexts and co-constructed curriculum are central to my own pedagogy. In previous

writings I have suggested integration might better be viewed as a way of thinking about teaching and learning, or a set of pedagogical beliefs and practices, rather than a specific model of curriculum delivery (Brough, 2006; 2007). As a consequence of my interest in democracy, this project looked at the implementation of the principles and practices of student-centred integration rather than Beane's model in its entirety. Hence, the discussion which follows shifts its attention to this area.

The Democratic Principles and Practices in Student-Centred Integration

Before discussing the key principles and practices it is important to reiterate that the differentiating factor between subject-centred integration and student-centred is that the first is discipline orientated, the latter is student focussed with democratic pedagogy. Democratic practices are therefore embedded throughout each of the principles discussed. This section of the literature review will examine what the literature says about the use of relevant learning themes, co-constructed curriculum, and the role of the teacher.

Relevant Learning Themes.

The first principle to be discussed is theme selection. Curriculum organising themes are selected and planned collaboratively with students. Beane (1997) contended themes should be organised around what he described as significant problems and issues:

> In curriculum integration, organising themes are drawn from life as it is being lived and experienced. By using such themes, the way is opened for young people to inquire critically into real issues and to pursue social action where they see the need. (p. xi)

Beane (2002) advocated teachers ask “powerful questions” such as, “What questions or concerns do you have about yourself or your world?” Common responses from students have been: "Will there be world peace? Why do people hate one another? How can we save the environment? Will my family stay together? Will cures be found for deadly diseases?” (p. 9). Barnes’ (2007) recent book *Cross-curricular learning* stated that as a result of increasing media coverage, more children are becoming interested in emotive subjects such as war, poverty, terrorism, pollution, disasters and child hunger. Yet many adults fear these topics are too complex for children to address. Barnes cited research evidence from across USA, UK, Sweden, and Canada showing children’s extreme concern about the future (Hicks, 2001). Barnes (2007) believed: “the lives of children should be central to the curriculum they are offered” (p. 125). Although his text reflects a multi-disciplinary perspective, he suggested it was important for children to explore the big questions and issues of life and encouraged pupil participation in the selection of themes. Vars (1991) emphasised a word of caution, suggesting teachers should consider if the theme is educationally worthwhile and appropriate for students’ maturity levels. In a recent New Zealand case study, Trembath (2006) discussed the concern some teachers raised over the appropriateness of themes raised by children. It was felt they had been influenced by recent world events, which teachers felt were too bleak for primary-school children to explore. Beane’s question was reshaped by removing the words “issues and concerns” with students asked “What they would like to know or learn about their world?” In previous publications (Brough, 2006, 2007) I have suggested themes may evolve from a “teachable moment” where teachers explore a situation initiated by children’s curiosities or questions. An incident may have arisen in the classroom, school or community which triggers questions and comments that students and teachers then shape into a negotiated theme.

Co-constructed curriculum.

The second principle to be discussed is co-constructed or negotiated curriculum which has been described as the core pedagogy in student-centred integration. This tenet is perhaps the most challenging principle for teachers to implement as it requires students and teachers to collaboratively plan learning experiences. A variety of terms have been used synonymously to describe this process: negotiated (Boomer, 1996; Cook, 1996), collaborative, participatory (Beane, 1997) and co-constructed (Brough, 2006, 2008a, 2008b; Fraser, 2000). Bruce (2005) stressed that negotiated curriculum deviates considerably from the traditional approach where knowledge was transmitted by the teacher who held power and control. Students passively received the required knowledge which was eventually regurgitated for assessment purposes. Fraser (2000) contends there are misconceptions about what curriculum negotiation entails; she stressed that it does not involve merely basing work on students' interests, inviting resource contribution or offering occasional input or choice. Instead, negotiation involves a genuine sharing of power, where students and teachers collaboratively construct the learning process. Beane (1997) maintained student input should permeate the entire learning process, from the selection of issues and themes, to the planning of investigations and assessment procedures.

While Beane (1997) and Fraser (2000) appeared to take little cognisance of teachers facing prescribed topics, Boomer (1996) and Cook (1996) discussed negotiating when school restraints prohibit total freedom. Boomer advocated discussing topic selections and non-negotiable requirements openly, and wherever possible taking on board children's suggestions and adapting planning accordingly. Similarly, Cook offered strategies on how to negotiate prescribed topics, but maintained there are strong arguments that the theme should also be negotiated. He believes negotiation means the same in education as it does in industry and politics. It involves considering all perspectives in an attempt to ultimately achieve the most satisfactory outcome. The key to negotiation lies in the

ownership principle, as he suggested people strive hardest to achieve their own goals. Classroom questions should be primarily based around process rather than content, with four questions being recommended: "What do we know already about the topic? What do we want, and need, to find out? How will we go about finding out?" and lastly "How will we know, and show, what we've found out when we've finished?" (p. 21). Cook stated that although it is probable children will raise much of the prescribed curriculum, it is highly appropriate for teachers to make suggestions when essential content or skills have been overlooked.

Involving students in the negotiation of assessment is also important (Beane, 1997; Brodhagen, 2007). Students and teachers establish both the success criteria and the assessment methods (Beane, 1997). The literature cites students being involved in a variety of ways: generating learning criteria, goal setting, self/peer/group appraisal, creating rubrics, presenting using multimedia, debating, modelling, performing, and student-led conferences (Beane, 1997; Cook, 1996; Pate, Homestead & McGinnis, 1997). This does not mean teachers are not involved in evaluating learning but it is crucial in a democratic environment that students play a significant role in assessing aspects of their learning (Beane, 1997).

Beane (1997) acknowledged that genuine negotiation is not without its challenges, as group power dynamics can negate the democratic process. He suggested it is vitally important to counter the situation by building a strong sense of community and trust so all students feel comfortable contributing to discussions. An additional challenge is that negotiation may be dismissed by teachers of young children who considered the approach to be far too sophisticated. However, Foreman and Fife (1998) cite examples of negotiation being used successfully with kindergarten-aged children. They described the process as "child originated and teacher framed" (p. 240). Substantially more scaffolding is required at this level, with teachers suggesting possible exploratory activities which are then negotiated with the children.

Although negotiation can appear to be a rather daunting prospect, specific advice has been provided to help new negotiators develop their pedagogy and practice. Suggestions include: taking time to discuss students' interests, sharing teacher planning and inviting student contribution, involving children in creating their own learning environments, and student goal setting (Cook, 1996; Fraser, 2000; Nesin & Lounsbury, 1999).

It is important to note that many of the key principles espoused in student-centred integration are also evident in other approaches. Many embrace similar practices such as negotiation, asking process questions, and problem-solving inquiry processes, to name but a few. However, it has been said that the entire student-centred process needs to be evident for genuine integration to occur (Beane, 1997; Fraser, 2000). In the past, Beane's adherence to this standpoint has seen him pay little credence to teachers who do not have complete autonomy in their classrooms. Interestingly in his recent writings (Beane, 2005) there appears to be a noticeable shift, with Beane recommending a number of strategies for those faced with pre-determined topics. Many of these are not dissimilar to those recommended in Boomer, Lester, Onore and Cook's (1996) comprehensive text on curriculum negotiation. To develop a more extensive understanding of how themes are developed and negotiated, it is necessary to examine what the literature has to say concerning the role of the teacher.

The Teacher's Role in Student–Centred Curriculum Integration

Teachers adopting student-centred integration require a vast array of complex skills, necessitating expert pedagogical understanding and content knowledge. The teacher's role is considered too multifarious to describe in a single word with writers suggesting teachers assume a multitude of roles. Bartlett (2005a, 2005b) identified two key characteristics as essential prerequisites, flexibility and the ability to be reflective. He saw

flexibility as vitally important in order to juggle the diversity of roles. He described teachers as instructors, facilitators, models, coaches, guides and learning managers. Similarly, Cook (1996) viewed teachers as guides and leaders, negotiators rather than dictators, experts, operation co-ordinators, resource linkers, scribes, questioners, roving facilitators and providers of information and ideas. Pate et al., (1997) seldom referred to "teach" or "teachers" preferring "instigators of learning". Harwood, Williamson and Wilson's (2006) research quotes one teacher as saying "It's about teachers doing less talking and kids doing more thinking" (p. 40). Taking a more facilitative role involves teachers having to build a sense of community, ask in-depth questions and scaffold instruction.

Building a sense of community.

The importance of building a strong sense of community is discussed within the literature (Beane, 1997; Brodhagen, 2007; Nesin & Lounsbury, 1999). Brodhagen (2007) described how she involved students in the decision-making process from the onset of the year by encouraging them to suggest ideas for getting to know each other. This resulted in the students designing questionnaires, and researching their family history and heritage. Sharing was encouraged, helping establish a sense of identity and mutual respect. Democratic student-centred integration embraces the notion of multicultural education, where opportunities are presented for students to learn about themselves and each other, leading to what Dewey (1902, 1915) described as an increase in tolerance and social judgment.

As part of establishing a positive community, Cook (1996) advocated the importance of creating a risk-taking climate, where children feel challenged but supported and where it is okay to make mistakes. Risk taking was also broached by Pate et al., (1997) who documented the journey of two teachers implementing curriculum integration for the first time, proposing that:

> The deepest, longest-lasting learning comes from taking risks. Making mistakes often personalizes learning for students. We wanted our students to know that failing at something can be a positive experience if you learn from it. We wanted our curriculum to be built upon puzzling problems and creative ways to solve problems. (p. 9)

Shared responsibility for behaviour and learning was also a recurring theme. It was suggested that constitutions or treaties be jointly constructed, with class meetings being called to discuss issues and concerns (Beane, 1997; Brodhagen, 2007; Hyde, 1996; Nesin & Lounsbury, 1999). Bartlett (2005a) contends that teachers assuming these roles need to be comfortable working in a noisier environment than traditional classrooms, and be amicable towards students working in a variety of settings, some researching outside the classroom or even off site.

In-depth questioning.

In addition to building a sense of community, the literature identified questioning as an essential teaching skill, helping children to extend and scaffold thinking (Fraser, 2000). Bartlett (2005a, 2005b) and Beane (2005) note that the type of work children are involved in requires them to solve complex problems, research, evaluate, pose questions, and critically examine information. The teacher, therefore, needs to ask the right type of questions at the right time, not only to arouse curiosity, but also to trigger debate and discussion. In addition to asking questions, authors discussed the importance of teachers' self questioning. Beane (2005) recommends teachers constantly ask themselves "When do I intervene? How hard do I press here? Should I say something or let the group figure it out?" (p. 48). Specific questions to initiate the planning process were cited earlier when discussing when discussing the work of Beane and Cook. The literature suggested not all teachers are skilled questioners. Fraser and Paraha

(2002) contend that a teacher's ability to ask effective questions is contingent upon their pedagogical skill and content knowledge. If this is lacking, sharing power can cause considerable anxiety: "When teachers are out of their depth with the knowledge base required in certain topics, their questioning and scaffolding can become shaky, superficial, and aimless" (p. 62).

Scaffolding instruction.

Scaffolding instruction during student-centred curriculum integration is touched upon lightly in the literature; perhaps there exists a presumption that teachers possess the necessary skills. Despite this apparent gap, there are articles within education that specifically discuss scaffolding that are pertinent to curriculum integration. Vygotsky (1978) who theorised scaffolding, suggested learning takes place in social situations and within meaningful contexts. A more knowledgeable adult is required to scaffold the learner through each stage or level with guidance gradually withdrawn as the learner shifts towards increasing levels of independence. When integrating curriculum, teachers' pedagogical skills are fully employed to scaffold students' thinking and skills throughout the entire process (Fraser, 2000). Careful, assessment is required to determine the skills students require to pursue their enquiries. In addition to specific discipline knowledge, teachers need to focus on co-operative learning skills, ways of investigating, information and communications, technology tools, communication, analysis and critical thinking. Several authors stressed that explicit teaching is still required (Beane, 1997; Collidge, 2001; Cooper, 2003; Harwood et al., 2006).

Previous discussion has centred on the principles and practices of student-centred curriculum integration and the teacher's role. A closer examination of the teaching process will provide a fuller picture of these skills in practice. Although I consider the literature to be light on descriptors of practice, particularly at the primary level, there are a few

papers available, although not all are research based (Beane & Apple, 2007; Brough, 2006, 2007, 2008a, 2008b; Fraser & Paraha, 2002; Harwood et al., 2006; Trembath, 2006).

The teaching process.

The initial process begins with the theme; the resulting questions may have been instigated by asking a "big question" such as Beane's (2002) "What questions or concerns do you have about yourself or your world?" (p. 9). Alternatively an incident or problem may have occurred triggering student curiosity. Once questions are posed, students negotiate the curriculum considering what they already know, how to group or organise investigations, how they might find and implement solutions, what skills are required, and how they will present and assess their learning (Brough, 2007). Pursuing issues often results in students initiating some kind of social action linking back to Dewey (1936, 1938) and Beane's (2005) learning for the "common good". Asking students what they already know is recommended, as this helps establish prior knowledge, identify possible misconceptions or gaps in learning and offers the opportunity for children to make connections (Bartlett, 2005a, 2005b; Brough, 2007; Cook, 1996).

Cook (1996) noted that: "The very act of asking what we know tends to expose what we don't, and so raises the consciousness of questions to be answered about the gaps in our knowledge" (p. 22). Cook (1996) reiterated that the process being a shared procedure allows the teacher to raise things the students may not have considered, including curriculum requirements. The process links back to Fraser and Paraha's (2002) comment about teachers needing to carefully assess the skills children require when pursuing their investigation. It reinforces the importance of explicit teaching of skills and the integration of knowledge, to which much of the literature referred (Beane, 1997; Collidge, 2001; Cooper, 2003; Harwood et al., 2006). As part of Cook's (1996) four

process questions “How will we know, and show, that we’ve found out when we’ve finished” (p. 21) he suggested students consider “What are our findings, what have we learnt, whom will we show and for whom are we doing the work, and where next?” (p. 21). This process illustrates student involvement in assessment and offers opportunity for students to consider social action.

During Bartlett’s (2005b) research on integration, he discussed teachers providing activities, facilitating discussions, offering metacognitive learning, helping students make connections, identifying opportunities to incorporate thinking skills, and teacher intervention in the acquisition of skills. Cook (1996) and Pate et al., (1997) discussed how more teacher input and modelling may be required in the early days of implementation.

Having discussed the key principles and practices evident in student-centred integration, including relevant learning themes, co-constructed curriculum, the teacher’s role, and the integration process, this review will now investigate the benefits of adopting this particular curriculum design.

The Benefits of Curriculum Integration

Literature and research has established that there are benefits for both student-centred and subject-centred integration. Even authors who advocate passionately for the most student-centred versions concede, albeit tentatively, that subject-centred integration is more effective than traditional separate discipline curriculum (Beane, 1993, 1997; Vars, 1991). While acknowledging the virtues of both perspectives, the predominant focus will rest with student-centred integration.

This section opens with a general discussion on the benefits of curriculum integration. The literature review is broad, encompassing advocacy articles relating specifically to the approach, and articles which correspond with key practices and principles such as: interconnectedness,

authentic learning, democratic pedagogy and cultural inclusivity. The final segment focuses specifically on the research evidence that supports student-centred curriculum integration.

The first benefit is interconnectedness, which is pertinent to both forms of integration. However, the degree of connectedness varies substantially across approaches. This was made evident through the various integrated models discussed earlier in this review, which ranged from simple to complex connections. Regardless of the complexity, a substantial body of neurological research is cited throughout the literature, extolling the benefits of making connections. Beane (1997) summarises research in this area reporting that the brain processes information through making patterns and connections. The more knowledge is unified, the more brain compatible the information becomes (Caine & Caine, 1991; McDonald, 1971; Sylwester, 1995). Barnes (2007) concurred referring to the neurological benefits of "cross-curricular" learning. He outlined advances in neurological science, which suggest rich multilayered experiences offering intellectual challenge, multiple modes of interpretation, emotional and physical engagement, are beneficial neurologically. Memory banks are enhanced when links are made from the present to the past, emotive issues are discussed, and learning connects with life.

The benefit of connections has been recognised in New Zealand education. The *New Zealand Curriculum Framework* (MoE,1993) encouraged teachers to make use of the connections between the seven essential learning areas. It stated that "schools may achieve a balanced and broad curriculum by organising their programmes around subjects, by using an integrated approach, or by using topic or thematic approaches" (p. 8). The revised curriculum retained this tenet, suggesting links across learning areas provided coherent transitions which open up pathways to further learning. Effective pedagogy was purported to also connect to home practices and the wider world (MoE, 2007). The Best Evidence Synthesis findings (Alton-Lee, 2003) determined that quality teaching

involved building on students' prior knowledge and experiences. Curriculum was reported to be most effective when "Curriculum enactment has coherence, interconnectedness and links are made to real life relevance" (p. viii). Alton-Lee cited Brophy's (2001) research synopsis which suggested connected knowledge structured around "powerful ideas" is more likely to be retained and understood. In contrast, knowledge learned through rote learning or in isolation limits accessibility.

Advocates of integration assert that in the real world life's problems seldom fall into separate disciplines, and that it is just commonsense to integrate. One of Hargreaves and Moore's (2000) research participants commented:

> The big thing that I've always said to the kids is that when you're an adult and you're out doing your job, you don't do 40 minutes of this and 40 minutes of that …. You just live. If you have to use your language skills to solve a problem or your mathematics skills or your science skills or whatever, you've got the skills, but you just use them. (p. 97)

In the most sophisticated versions of student-centred integration, numerous connections are evident. The theme is the connecting factor, which links to the student's life and community. There is no immediate step that identifies subject areas that lie within the theme rather, discipline knowledge is utilised when researching. Prior knowledge is established through questioning, clarifying and debating issues (Beane, 1995, 1997). Although many models of subject-centred integration make use of a connecting theme, not all models invite student input into initial theme selection (Drake, 1998; Fogarty, 1991; Jacobs, 1989). Student participation through the use of authentic themes extends connections, and allows learners to understand the purpose for the acquisition of skills and knowledge.

Teaching through authentic themes is beneficial for student learning. When examining the literature on effective pedagogy,

authenticity and relevance is a recurring topic. Those who subscribe to student-centred forms of integration see this as a central tenet (Beane, 1997; Fraser, 2000). Questions about self and the world are encouraged; therefore students perceive an immediate sense of relevance (Brodhagen, 2007). Nuthall (2007) suggested that examining big questions or problems enables learners to explore issues in depth, rather than trying to cover so many aspects of curriculum, which can result in surface level understanding. Gabel (as cited in Alton-Lee, 2003) concurred, making reference to research evidence that showed using real-life learning contexts enhanced achievement, motivation and problem-solving skills. The MoE (2007) advised that the most effective way of learning is when students "understand what they are learning, why they are learning it, and how they will be able to use their new learning" (p. 34). In addition, the MoE notes that effective teachers seek opportunities to involve students in decision making related to their own learning. This enhances relevance, creates a greater sense of ownership, and provides a more democratic learning environment.

Student-centred integration has a democratic teaching pedagogy which encourages student voice and offers opportunities for genuine decision-making (Beane, 1997; Fraser, 2000). The United Nations Convention on Children's Rights (1989) stated explicitly that children have the right to freely convey their opinions in all matters affecting them, and that their viewpoint must be taken into account. Cook-Sather (2002) asserted that the perspectives of those most directly affected by education are seldom consulted when developing curriculum. She suggested: "Most power relationships have no place for listening and actively do not tolerate it because it is very inconvenient: to really listen means to have to respond" (p. 8). Trafford (as cited in Hamilton, 2006) found schools that attended to student voice experienced enhanced student/teacher relationships, improved behaviour, reduced truancy, increased levels of motivation and inclusion, a rise in attainment, and student responsibility. The concept of democracy goes beyond the students themselves as it

contains the notion that curriculum should not only empower learners but that it should also benefit society (Beane, 1997; Dewey, 1936). Dewey advocated that schooling should reflect a mini society where children profit from actively engaging in critical inquiry, helping develop the skills and attitudes required for life. Working collaboratively, solving real-life problems, generating subject matter for study and accepting responsibility, are beneficial skills that are not only personally meaningful, but also allow learners to contribute effectively in society (Dowden, 2007a). *The New Zealand Curriculum* (MoE, 2007) identified "participating and contributing" as one of the five key competencies that enable children to have the capability for living and lifelong learning. This competency recognised the benefits of being actively involved in local communities. Children are required to make connections with others and contribute appropriately as a group member. They need to understand the importance of balancing rights, roles and responsibilities. The pedagogy inherent in student-centred integration models participating and contributing as a member of democratic society and consequently meets the requirements of *The New Zealand Curriculum* (MoE, 2007). This pedagogy has the additional benefit of providing a more culturally equitable learning environment.

Student-centred curriculum integration endorses culturally responsive pedagogy; its shared decision making processes empowers learners. Prior-knowledge is valued, diversity is celebrated, and the approach is holistic in nature. Children feel heard and valued (Brough, 2007). In their text *Culture Counts; Changing Power Relations in Education,* Bishop and Glynn (1999) suggested curriculum integration establishes collaborative learning partnerships which enhance student/teacher relationships, and address learning needs. They alluded to Māori educationalists who suggested current curriculum delivery is monoculturally biased and needs to be replaced with a curriculum that is closely related to real-life. Fraser and Paraha (2002) suggested curriculum integration promotes the principles of the Treaty of Waitangi through student/teacher partnerships. Dowden (2007b) argued that the democratic

process is beneficial for all learners, unlike multidisciplinary approaches which can fail to challenge various groups of students, or cater for all levels of ability. Students pursue individual questions and areas of interest, hence differentiated learning caters for children from different cultural backgrounds, abilities and needs (Beane, 1997; Brough, 2007; Bruce, 2005; Fraser & Paraha, 2002). Having discussed interconnectedness, authentic learning, democratic pedagogy and cultural inclusivity, the following section will examine research evidence that supports student-centred curriculum integration.

Research identified duel benefits of adopting student-centred integration: heightened student achievement and increased engagement. The most well known project involved an eight-year longitudinal study in 30 American high schools (Aitkin, 1942). It concluded that integrated teaching resulted in only slight gains in academic and social measures when compared with traditional subject delivery. However, the six most innovative schools were described as “strikingly more successful”. These schools adopted a core curriculum based upon common problems which resulted in students possessing heightened levels of positivity and motivation. They demonstrated high degrees of intellectual curiosity and drive, displayed systematic thinking skills, resourcefulness and a genuine interest in world issues (Aikin, 1942). In Vars’ (1997, 2000) extensive analysis of over 100 studies of curriculum integration, he noted that in nearly every instance, students in various integrative programmes achieved well or better than their counterparts. Hinde (2005) cites further studies (Hargreaves & Moore, 2000; McBee, 2000; Schubert & Melnick, 1997; Yorks & Follo, 1993) set in both primary and secondary schools that showed similar benefits from “integrated or interdisciplinary” methods. Heightened engagement, positive attitudes, and increased rigour due to the use of relevant contexts were reported. Trembath’s (2006) recent research project in a Melbourne primary school focussed its attention on negotiated curriculum. Findings revealed dramatic increases in student engagement and improved academic results.

Vars and Beane (2000) point out that research comparing conventional separate discipline programmes with curriculum integration is often based on narrow standardised tests, developed in terms of conventional subject areas. They argued that standardised tests failed to measure additional competencies such as collaboration, participation, work habits, critical thinking and problem solving developed during integrated programmes.

In Aotearoa New Zealand, research concurs with the international findings described above. In a five year "Integrated Studies Project" at Freyberg High School (Nolan and McKinnon, 2003), students involved in integrated programmes achieved one standard deviation above the norm in School Certificate examinations in mathematics English and science. They possessed positive attitudes towards integrative curriculum, and considered the work they were doing to be worthwhile. In a more recent research project at Kuranui College (Bartlett, 2005a) students developed the skills, habits and attitudes required to become autonomous learners. They demonstrated high levels of motivation, confidence and self-regulation. In addition, students were prepared to discuss learning and voluntarily revisited work in a desire to demonstrate increased levels of understanding. Academic achievement was equal to, if not better than, peers in separate discipline programmes. Māori students opted to complete more unit standards than any other group and truancy was noticeably reduced. In the primary sector, improved learning was also evident. Harwood et al., (2006), reported on a one-year integrated programme in two primary schools. Findings showed enhanced levels of motivation and engagement, behavioural improvements, increased community involvement and raised teacher expectations. Similar findings were reported in a recent pilot project which used the arts as an initial trigger for integration. Results showed heightened levels of student engagement and ownership, an increased sense of purpose, students making connections across curriculum, and heightened levels of

community involvement. Student application of the key competencies was also evident (Fraser & Whyte, 2010).

Despite an apparent lack of research material from the primary sector, there are a number of examples of practice scattered throughout the literature that reiterate many of the benefits discussed (Brough, 2006, 2007; Fraser, 2000; Fraser & Paraha, 2002). Research suggested there are compelling reasons for teachers to give serious consideration to implementing practices and principles inherent in student-centred curriculum integration. Why then do so many teachers and educationalists shy away from this challenging approach to curriculum delivery?

The Challenges of Implementing Curriculum Integration

The literature contended that teachers considering adopting an integrated approach to curriculum delivery are faced with numerous challenges, some of which impact negatively on their engagement with this style of curriculum delivery. Authors suggested the major source of tension is the power-sharing pedagogy espoused in student-centred integration (Beane, 1997; Fraser and Paraha, 2002). This resonates with my own writings which have suggested “for many teachers this entails a paradigm shift, requiring them to move from a position of power to one of empowerment” (Brough, 2007, p. 8). When Beane (1995) discussed relinquishing power he suggested the type of paradigm shift required entailed “a change in viewpoint so fundamental that much of what is currently taken for granted is called into question or rendered irrelevant or wrong” (p. 622). For some teachers, collaborative planning is perceived as a complete loss of control. Writers make reference to the considerable discomfort experienced by teachers who relinquish their position as prominent decision makers (Fraser & Paraha, 2002; Nesin & Lounsbury, 1999). They discussed the insecurities felt when teachers are unable to fill out their planners in advance of teaching. As researchers working beside

children, teachers fear not knowing the answers in advance. These types of challenges often result in resistance to change

Resistance from teachers is an additional challenge with subject specialists erroneously fearing their expertise will no longer be valued. Beane proposed that separate-discipline teaching is “so deeply entrenched in our schooling schemes that it has virtually paralyzed our capacity to imagine something different” (1991, p. 12). George (1996), an ardent critic of curriculum integration, suggested high school teachers come to identify themselves with their subject. He expressed concern that: “The integrated curriculum may force teachers to abandon what they know for what they don’t know” (p.16). In an effort to dispel the notion that discipline knowledge is abandoned, Beane (1995) produced a comprehensive article proclaiming that disciplines were allies of integration, rather than enemies. Discipline knowledge is not abandoned, rather it is called upon in the context of the theme. It is important to note that discussion of separate disciplines is not reserved for high schools. Prescriptive programming, timetabling structures, external control, school policies, standardised tests, and rigid resourcing are cited as inhibiting factors in both primary and secondary schools (Beane, 1997; Boomer, 1996; Cook, 1996; Fraser & Paraha, 2002). Harwood et al., (2006) discussed how the structure of the *New Zealand Curriculum Framework* (MoE, 1993) has caused teachers to perceive knowledge in terms of particular subjects which has resulted in traditional separate discipline teaching. Apple (1993) alluded to the powerful political forces that lie behind traditional discipline delivery. He contended that curriculum integration is rejected because it disrupts the transmission of knowledge and the transference of values from the dominant political group. George (1996) suggested reversing centuries of curriculum practice would require an epistemological revolution as well as substantial teacher education. Throughout the literature it appears most advocates of student-centred curriculum integration are themselves calling for exactly this kind of revolution.

Another challenge identified by numerous authors is the increasing pressure placed on schools for accountability through standardised testing. Despite research evidence associated with student achievement on standardised tests,(Nolan & McKinnon, 2003; Vars, 2000). teachers are hesitant to stray away from traditional disciplines. Tests are shaped around subject areas, and consequently teachers devote their time and energy into the disciplines for which they are held most accountable (Hinde, 2005; Vars & Beane, 2000). The test-driven climate is said to hamper the development of more integrated approaches to curriculum delivery (Kysilka, 1998). Harwood et al (2006) concurred with Vars and Beane's (2000) position on standardised assessment methods. They suggested alternative assessment tools and practices need to be put in place to reflect "what students think, know and can do with knowledge and learning in real world terms" (p. 3). Advocates of student-centred approaches consider standardised tests to be paradoxically at odds with curriculum integration practices (Apple, 1993; Vars & Beane, 2000). Accountability for curriculum coverage has also been raised as an area of concern (George, 1996). Brodhagen (2007) recommends "Back mapping", which involves retracing a completed theme to demonstrate the content and skills typically taught in separate discipline approaches were addressed.

Perhaps surprisingly, another challenge lies with the students themselves. Initially, pupils new to integration considered it the teacher's responsibility to impart knowledge. Students suggested it was easier when teachers directed lessons by telling students what they needed to know, rather than having to accept responsibility for their own learning. Others regarded empowerment with suspicion, distrusting that their opinions and decisions would be given serious consideration (Collidge, 2001; Grundy, 1994; Hyde, 1996; Pate et al., 1997). This appears to be a legitimate concern, a recent research project reported several teachers new to negotiation were reluctant to take on board student suggestions and authentic negotiation was subverted. Student ideas were dismissed or

ignored “whether consciously or unconsciously” (Bruce, 2005, p. 15). Research on student voice has highlighted the challenges of achieving authentic consultation with complex power relationships, peer pressures and teacher agendas influencing outcomes (Maitles & Deuchar, 2006; Rudduck & Fielding, 2006). This links to previous discussions on the necessity of paradigm shifts in order for genuine negotiation to occur, or as Cook (1996) suggested, the importance of teachers being honest with students concerning what is negotiable and what is non-negotiable.

Time is an additional barrier. Beane (2005) acknowledged planning with students is more time consuming, and that it involves a complex array of teaching skills. However, he countered this by suggesting collaborative planning prevents the invariable struggles teachers face when students are disinterested in teacher-selected topics. Trembath (2006) suggested:

> This model does create more work for staff, as we cannot go to the filing cabinet and pull out an old unit and go with that. Each time, the students’ questions seem to be slightly different and drive the unit in different directions. (p. 32)

However, one participant in the project counteracted this by saying they enjoyed the freshness of teaching new themes that ensured they did not become stale.

Teacher change can be a significant hurdle for those switching from a separate discipline approach to more multi-disciplinary approaches. Drake (1991) discussed the painful process of letting go of the familiar:

> Each of us brought boundaries to this project; we saw in retrospect how artificial they were – they existed because of the ways in which we had each been taught to view the world. In letting go of old models we had to let go of certain assumptions we had all accepted as truths. (p. 21/22)

Advocates of multi-disciplinary approaches have suggested one of the biggest pitfalls is trying to cover too many curriculum areas at once

(Barnes, 2007; Brophy & Allenman, 1991; Jacobs, 1989). They warn this may be counterproductive, resulting in pointless “busywork” which lacks rigor and causes confusion. Barnes (2007) recommended teachers limit subjects to a maximum of four, advocating the use of both separate discipline teaching and cross-curricular dependent on the situation. He suggested integration is not a universal panacea that will address all the educational, personal and social challenges to be faced in the 21st century. He advocated, on occasions, the use of didactic de-contextualised teaching was required to provide necessary skills, knowledge and challenge to ensure progress. Likewise, Parker (2005) and Brophy and Alleman (1991) suggested teachers view curriculum integration as an additional pedagogical tool and not as an end in itself. Beane and other advocates of student-centred integration are likely to debate fervently around these perspectives.

In order to address many of the challenges of implementing curriculum integration, professional development is recommended to extend teachers pedagogical skill and content knowledge. Kysilka (1998) suggested teachers need to be schooled in the interconnectedness of content and be more broadly educated. Dowden (2007b) suggested professional development needs to include social issues. He asserted that teachers will need to address changes in classroom management styles, as work is often creative and unpredictable, with spontaneous problem-solving episodes. Teachers will need the skills to address learning needs as they arise. Harwood et al., (2006) also suggested New Zealand teachers require the skills to successfully incorporate cultural knowledge into themes. In a number of research projects where substantial educational gains were made, professional development was a key factor (Harwood et al., 2006; MoE, 1997; Trembath, 2006). Reid (2005) contends it is vitally important that 21st century teachers are “inquirers into professional practice who question their routine assumptions and who are capable of investigating the effects of their teaching on student learning” (p. 5).

It is widely recognised throughout the literature that curriculum integration is challenging to implement, particularly the more student-centred approaches. Sharing power, teacher skill, political pressure, accountability, time, traditional discipline structures, parental and student concerns are some of the main challenges faced by curriculum integration practitioners. “Resistance is strong; it comes from parents, teachers, students’ administrators and legislators” (Kysilka, 1998, p. 208). George’s (1996) article slating curriculum integration highlighted many of the concerns that exist. He disputed the availability of any research evidence to support its effectiveness. He viewed curriculum integration as a cumbersome time consuming fad, which is derisive of subject areas, and threatens teachers’ confidence. Interestingly, George made no links to research to support his opinions. Those who subscribe to student-centred approaches are often well aware of the challenges it presents, Cook (1996) stated “Constraints are, realistically, and inevitability. But while they may be part of the context for learning, they need not be in fact, must not be permitted to be – the underpinning inhibitor of good learning” (p. 30).

Another challenge is redressing the omissions evident throughout the literature. Despite a respectable number of examples of middle school integration, there is a noticeable lack of primary school material, with very few examples of practice within Aotearoa New Zealand. This is perhaps because this issues based approach has been viewed as particularly effective for early adolescent students (Beane, 2006; Nolan & McKinnon,1991). As a result, most literature fails to consider any adjustments that may be required to support younger learners, such as adaptation of themes, or additional scaffolding and skill development. Pedagogy is discussed comprehensively in most student-centred literature, but the specifics on “how to” is light, in terms of classroom organisation/management, teaching strategies, scaffolding and resourcing. Hinde (2005) suggested there is still substantial debate about the benefits of curriculum integration versus traditional discipline-centred approaches with educators on both sides able to point to studies supporting their

differing viewpoints. It is clear that curriculum integration discussions would be strengthened with the availability of more research, and further examples of practice (Beane, 1997; George, 1996; Harwood et al., 2006).

In this review I investigated the question: “What is curriculum integration?” I examined literature concerned with differing perspectives, pedagogy and practice and considered the benefits, and challenges. In rejoinder, the literature indicated student-centred curriculum integration may have significant benefits for students in both primary and intermediate schools, and consequently warrants more substantive investigation. Hence, this thesis shifts its attention to this project in an attempt to enrich the primary sector research that has already been undertaken. The next chapter discusses the methodology adopted in this project.

Chapter Three

Methodology

Introduction

Numerous facets were considered when determining this project's design. Foremost, of these were the philosophical assumptions or rationale which drove the work. These, in turn, gave rise to methodological considerations and the associated issues of instrumentation and data collection. I viewed the inquiry as far more than just a technical exercise, considering cohesion to be an essential aspect of the project. The thread that bound the design was the democratic nature of the research issue. Consequently an emancipatory critical paradigm was adopted and participatory inquiry procedures were used (Cohen, Manion & Morrison, 2007; Wolcott, 1992). This chapter opens with the theoretical rationale for adopting a critical theory approach. Discussion on inquiry procedures follows, beginning with a general outline of action-based research. This is followed by a more in-depth examination of participatory action-based research, the methodology of choice. Subsequent sections explain how the research data was collected from participants,methodological triangulation, data collection techniques, phases, interpretation and analysis. Discussion on trustworthiness and authenticity follows, with the consideration of ethics drawing the chapter to a close.

Theoretical Rationale

The democratic teaching pedagogy was the instrumental factor in determining the design of this project. Student-centred curriculum integration has a political agenda; its aim is one of student empowerment through the creation of more democratic learning environments. Thus, I

sought a complementary research paradigm and methodology that not only allowed for the exploration of democratic classroom practices, but also empowered participants throughout the process. The nature of the research question, along with the complexity of the classroom setting, made a positivist paradigm inappropriate for this project. Positivism values a technical rather than practical view of knowledge, taking a more scientific instrumental interest rather than a hermeneutic or interpretive perspective (Habermas, 1974).

A closer philosophical match was found in the social sciences interpretive paradigm, which endeavours to understand the world from a participant perspective. However, this project aimed to go beyond interpreting situations, rather it was directed at educational transformation to redress inequity and promote democracy in schools. As a values orientated educator, my concern lies with the inequitable power relationships in classrooms, and my work is directed towards positive social change. Consequently, a critical theorist paradigm was considered most appropriate. The political agenda of this particular paradigm is to emancipate the disempowered, examine social power and control and transform education thereby creating a more just egalitarian society (Carr & Kemmis, 1986; Carspecken, 1996; Grundy, 1987; Kincheloe & McLaren, 2005; Kemmis, 2008). Carspecken (1996) suggested that values-driven researchers feel compelled, as do I, to conduct research for the betterment of the oppressed.

Significant debate exists within the literature as to whether critical theory warrants a separate paradigm, or is merely a perspective within the interpretive paradigm (Davidson & Tolich, 2003; Cohen et al., 2000; Guba, 1990). Critical theorists argue that positivist and interpretive paradigms present incomplete interpretations of social behaviour as they fail to consider the political and ideological contexts in which the research takes place. Jurgen Habermas (1974, 1984a, 1984b) is credited with developing critical social science which situates itself somewhere between philosophy and science. The theory is “critical” in the sense that the research issues

challenge participants to question existing educational and social structures. Participants in this project investigated power relationships in classrooms, planning and decision making *with* students when traditionally teachers and schools have assumed control. Critical reflection is said to lead participants to self-understanding which is considered empowering, helping redress dissatisfactions and injustices (Carr & Kemmis, 1986; Habermas, 1974). The decisive aim is to transform educational practice: "critical educational science is not research *on* or *about* education, it is research *in* and *for* education" (Carr & Kemmis, 1986, p. 156). Critiqued for its lack of objectivity, critical theorists argue that all research is value laden and far from ideologically neutral. Critical theory acknowledges the political and ideological contexts that exist within educational research settings and seeks to emancipate individuals and groups working within an egalitarian society (Carr & Kemmis, 1986, Carspecken, 1996, Kemmis, 2008). While the values orientation explains my motivation for conducting the study, and the appropriate fit for the nature of the research issue, it does not determine findings or outcomes (Carspecken, 1996).

In summary, critical hermeneutics was considered fit for the purpose of this study. Regardless of the debate that exists as to whether critical theory warrants a separate paradigm, I remain subscribed to this perspective with my justification being that this paradigm epitomises the political aspirations of this inquiry. The democratic research issue combined with my values orientation made this paradigm a synchronous match. Similarly, a research design was sought that would be most pertinent to the issue being examined. Consequently, participatory action research (PAR) was selected.

Action Based Research

The research question investigates:

What happens in classrooms where teachers are attempting to incorporate the democratic principles and practices inherent in student-centred curriculum integration?

Consequently I sought a methodology that allowed participants to investigate a range of self-determined democratic inquiries. Recognising the importance of ownership and reflective practice during my own experiences as a research participant, I believed the methodology needed to provide opportunities for reflection, debate, and further strategising. Moreover, a systematic research approach was required that was integral to the classroom. After reflection on a substantive range of literature it was determined that participatory action research (PAR) was the most comparable methodology. Expedient, at this point, is an outline of what is meant by action research and in particular PAR.

The phrase "action research" was originally coined by social psychologist Kurt Lewin in the 1930s (as cited in Cohen et al., 2007). Rather predictably, it is described as a combination of strategic '*action'* and '*research'.* Its original intent was to enhance social practices through collaborative group processes. It consisted of a series of cycles which included: planning, acting, observing and reflecting. This process served as a precursor for many contemporary models that have since emerged (Carr & Kemmis, 1986; Cohen et al., 2007; Creswell, 2002). Action-based research means different things to different people, it is complex and multifaceted, and it varies depending on why or how a project is undertaken. Nonetheless, Mills (2000) suggested action-based research typically falls into two basic research categories, practical action research and participatory.

Practical action research involves the systematic research of educational issues with a view to improving teaching practice on a local level (Schmuck, 1997). In contrast, PAR takes a more philosophical stance reflecting Lewin's original intent of research for social justice. It is said to be as much political as it is educational, given that it is part of a broader agenda of democratic advancement (Creswell, 2002; Kemmis,1997). Consequently, I elected to use PAR as my chosen methodology believing it could most productively be used to examine this democratic oriented inquiry.

Having considered the project's theoretical rationale, and broadly outlined action-based research, the ensuing subsections focus on PAR. Participant involvement is central to this methodology. Hence, I have opted to begin by introducing the participants. What follows is a definition of PAR and an explanation of the key principles and characteristics. To conclude, the research process is explained along with my role as researcher and reflective practice.

Participants

The three teacher participants involved in this PAR project were graduates who had successfully completed the Curriculum Integration paper at the University of Waikato at Tauranga. The rationale being, they had a theoretical understanding of student-centred curriculum integration which would provide the basis for development, discussion and exploration. A brief outline of the paper serves to provide an overview of the participants' shared experiences. The paper included theoretical and practical components. Theoretical knowledge was acquired through professional readings and lectures. Practical aspects involved visiting classrooms to observe and critique various models of integration. In addition, the three teacher participants were required to plan and implement a three day integrated unit in schools. As senior tutor of this paper, participants were already known to me.

Before the project was mooted the teachers involved in this project had expressed a desire to explore the implementation of student-centred curriculum integration and consequently were invited to participate. Teaching experience spanned from one and a half years to three, with one teacher fully registered and two provisionally registered. The teachers were from three different primary schools with decile ratings ranging from five to nine. Two schools were state schools and one was an integrated school of special character. Class levels included years one, four and six,

providing a broad age representation across the primary school. Students were considered to be participants.

Participatory Action Research (PAR)

When determining the methodology that would be best suited for this project I sought a process that was emancipatory for participants and improved teaching practice. Participatory action research addressed these requirements. A plethora of different, yet analogous, terminology is used to define PAR including, emancipatory action research (Grundy, 1987; Zuber-Skerritt, 1996), participatory action research, (Kemmis & McTaggart, 2000), community-based inquiry (Stringer, 2007) critical action research (Carr & Kemmis, 1986; Mills, 2000) and more recently, critical participatory action research (Kemmis, 2008). For the purposes of this project I have elected to use the term PAR and have adopted Carr and Kemmis' (1986) definition from their influential text, *Becoming critical: Education, knowledge and action research* believing it to be pertinent to this project.

> Action research is simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practice, their understanding of these practices, and the situations in which the practices are carried out. (p. 162)

This definition is highly appropriate since it is consistent with the democratic character of the research issue; it concurs with the self-reflective nature of this inquiry and acknowledges the social research context. PAR is designed to study practice with *involvement* and *improvement* considered central tenets (Grundy, 1987). Carr and Kemmis (1986) state "The aim of involvement stands shoulder to shoulder with the aim of improvement" (p. 165). Underpinned by critical theory, PAR echoes the writings of Habermas (1972, 1984a, 1984b) and more recently, Carr and Kemmis (1986), Giroux (1989), Grundy (1987), Kemmis and Wilkinson

(1998), and Zuber-Skerritt (1996). Critical theory starts “from the idea that research should do more than understand the world: it should help change it” (Munford & Sanders, 2003, p. 264).

Kemmis and Wilkinson (1998) suggest six central principles should be present in PAR, all of which are inherent in this project. These principles will be outlined and an explanation provided on how these were incorporated within this project. The six principles are: *social process, participation, practical and collaborative, emancipation, critical, and recursive*. The first is *social process.* Educational research takes place in settings where people work together to change educational practices. PAR explores how socialisation and setting shapes individuals. Secondly, it is *participatory,* since stakeholders research themselves and their practice. It examines participant knowledge including understandings, skills and values that can frame and restrain actions. Thirdly, it is *practical and collaborative*. *Practical*, since it explores acts that change the structure or social organisation and endeavours to elicit practical solutions to identified problems. *Collaborative*, because the research takes place “with” others. The fourth tenet is *emancipatory;* PAR aspires to liberate individuals from social structures that inhibit self-development. Next is *critical,* this involves participants making deliberate attempts to redress inequities in their environment. The final tenet is *recursive (reflective or dialectical),as* PAR involves cycles of recursive inquiry. Each spiral of action and reflection is centred on bringing about change through a process of critical and self-critical reflection. Its focus is on learning by doing with each successive phase building on the understandings gained from the preceding cycle.

The principles outlined above are embedded within this project. Firstly, it was a *social process,* a group of likeminded practitioners who gathered together to research their teaching practice. This group met through focus group meetings, regular electronic forums and informal conversations. Further each participant was also a member of a broader educational setting within their own school environment. The project was *participatory* because it offered participants the opportunity to investigate

aspects of democratic classroom practice that were of interest to them and placed participants on an equal footing with the researcher. It was *practical* and *collaborative.* Practical actions were taken to investigate democratic teaching strategies and curriculum implementation. *Collaborative* enquiry was central as the project took place "with" other classroom practitioners albeit they were situated in three different schools. The fourth *emancipatory* principle was a central aspect of the project as the study itself examined how teachers might include more democratic practices within the constraints of their school environments. Teachers in this project were values-driven, researching on behalf of students, believing their inquiries would emancipate students as they explored how they might create more emancipatory learning environments. Kemmis and Wilkinson's (1998) fifth tenet is *critical*. This project involved participants examining their practice in a critical light. It saw participants implementing teaching strategies that challenged their perceptions of how curriculum should be delivered and saw the teachers questioning power relationships that exist in classrooms. Lastly, this project used a *recursive*, *reflective* spiral with reflection taking place on both an individual and group basis. Following reflective intervals new understandings were sought and additional changes explored. How to best capture what happened during this complex process required careful consideration.

This project was to take place over a nine-month period with teachers transitioning through several research phases. An inquiry approach was sought that would allow rich participant descriptors to be captured. Hence, a qualitative rather than quantitative approach was considered most appropriate as this would allow for detailed perceptions of participants to be represented in the form of words and images (Creswell, 2002; Denzin, & Lincoln, 2005; Wadsworth, 2001). Critics from the qualitative scientific community would likely argue that this study is unscientific, lacking rigor and the capacity for generalisations and replication (Carr & Kemmis, 1986; Stringer, 2007; Wadsworth, 2001). However, the aim was to capture the essence of the classroom situation rather than isolate variables. It was more concerned with capturing

participant perspectives and less concerned with replication and concrete generalisations (Burns, 2000; Denzin & Lincoln, 2005). Multiple methods were used in an attempt to strengthen data. These included: case studies, semi-structured interviews, focus meetings and electronic forums. Denzin (1997) suggested critical ethnographic reports are often messy as a result of their multimethod and multilayered approach to inquiry which can be full of imponderables, incongruity and tensions. However, when investigating within a qualitative approach we need to be mindful of associated complexity and influences such as school structures, community and teacher experience.

Participatory action research process.

Participants required time to explore different democratic actions inherent in student-centred integration. PAR offered the opportunity to research using a series of self-reflective cycles or phases. These included: *planning* a change; *acting* and *observing* what occurs; *reflecting* then planning further actions (Figure 2). Stringer (2007) refers to this process as “look, think and act”. Cyclic rather than linear, it involves a series of strategic actions which take place in the wake of developing understandings. It comprises retrospective analysis and prospective action, with spirals frequently merging (Carr & Kemmis, 1986; Grundy, 1987). Phase fusion was evident in this project with participants setting new research questions at the end of each phase; these inquiries initiated the following cycle. I considered it essential that the research process be collaborative, with participants viewed as co-researchers. Lewin (1952) emphasised the importance of participant involvement throughout all phases, suggesting this leads to independence and empowerment. Full consultation was sought at all stages with teachers setting their own research enquiries. The collaborative nature of this project was designed to provide a supportive collegial environment. This project involved the exploration of a complex and challenging teaching pedagogy. Three research phases were considered necessary to enable teachers to

adequately explore, reflect, debate and modify practice. Carr and Kemmis (1986) contend that single loop or spiral of inquiry is merely problem-solving and should not be considered action research as it fails to develop the collaborative process deemed necessary to deepen reflection and critique practice. Burns (2000) concurs suggesting three, or even four cycles, are necessary to determine the effects of actions. He describes the design as “adaptive, tentative and evolutionary” (p. 45). In this project the first phase set the scene for the project as a whole and established the first strategic steps of action.

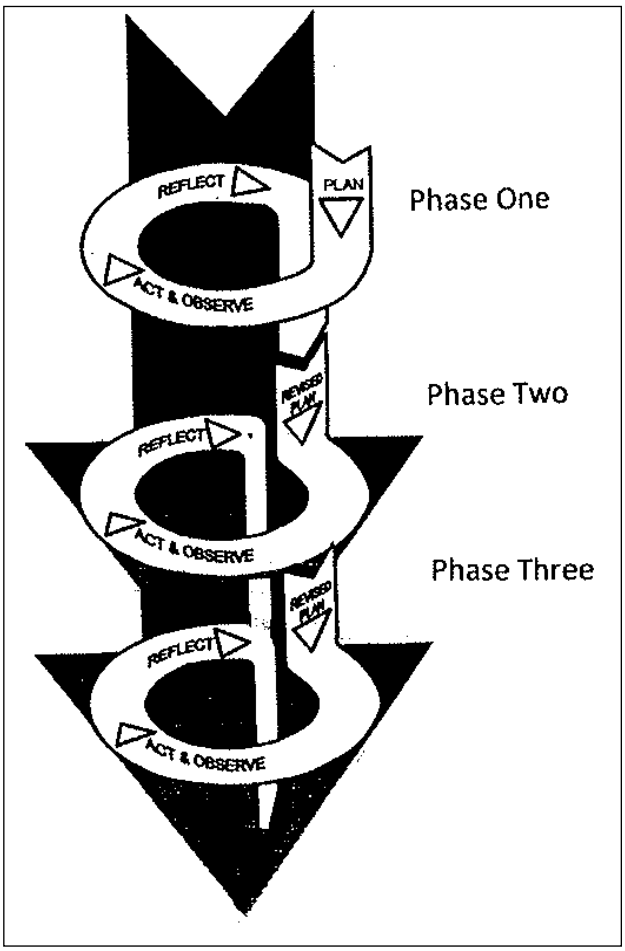

Figure 2: Participatory action research cycles adapted from Kemmis and Wilkinson (1998)

Phase One –began with individual semi-structured interviews to determine the participants’ initial practices and understandings. This was

followed by the inaugural focus group meeting. This meeting provided participants with the opportunity to get to know each other as they would be working closely throughout the year. During this meeting time was taken to discuss my role as the facilitator along with professional discussions on teacher change process. The initial phase served as a compass which involved shaping, framing, conceptualisation and design (Wadsworth, 2001). The participants collaboratively determined a range of teaching strategies or actions which they believed might create democratic learning environments. These initial brainstorms provided guidance for the remainder of the research project (Appendix A). Each participant posed a research question (Table 1 identifies individual research questions set during the course of the project). Questions varied depending on the school context, strategy and the age level of the students. Following practical implementation, a second focus meeting took place to reflect on the understandings gained.

Phase Two – A seamless merging between phases occurred as reflections from phase one led to the setting of phase two's research questions. In this phase questions went beyond scene setting to more specific inquiries that explored how student involvement could be included in organisational aspects of the classroom and curriculum. Once again following classroom actions, this phase was completed with a focus meeting, further reflection and question posing.

Phase Three – During the third focus meeting significant discussion took place on how participants might include students in curriculum planning. Varied questions were posed around student/teacher planning. On return to school the teachers began exploring their research question. A final semi-structured interview was conducted and the research project finished with a fourth focus meeting to consider the project as a whole. Participants reflected retrospectively on their practice. They considered what if anything had altered their practice. They evaluated any changes and reflected on implications for future practice. This process parallels the reflective ideological critique proposed by Habermas (1972). He suggested

this kind of reflective process is emancipatory and liberating as it serves to help participants understand their situations and develop agendas that alter situations so they become more democratic. Table 1 shows the way each of the three participants evolved their research questions.

Table 1: Participant research questions

Participant	Phase 1 Research question	Phase 2 Research question	Phase 3 Research question
Toni	*How might I set the scene for beginning curriculum integration in my classroom?*	*How could I include students more throughout the planning process, maintain quality teaching, and track learning for accountability purposes?*	*How can I successfully complete a negotiated road safety unit plan, which includes student input into learning, presentation and assessment?*
Mikayla	*How can I raise student thinking in my classroom?* *How can I begin to have my children take more responsibility for managing their learning?*	*How can I involve my children in more aspects of the planning process, and how will I document this in a way that is meaningful to children and also offers accountability?*	*How can I involve my children further in planning beyond small parts, to include them fully, throughout all aspects of the planning process?*
Sasha	*How can I offer choices in the children's programme so they have a sense of freedom and develop self management skills?* *How can I raise student voice?*	*How can I involve the students more in the planning of the timetable while acknowledging non-negotiables?* *How can I involve the students more when planning the wheels unit?*	*How can we plan our floating and sinking unit together while demonstrating creative and thorough learning?* *In what new ways can I incorporate more student input into the literacy programme that will appeal and extend literacy knowledge?*

Role of researcher and the co-researchers/participants

During this project I wished to assume a facilitative rather than directive role, paralleling the ethos of empowerment which underpinned this project. PAR perspective concurs with this position, with researchers referred to variously throughout the literature as: consultants, catalysts, questioners, process consultants, assistants, dialogue inducers and co-ordinators (Carr & Kemmis, 1986; Martin, 2001; Stringer, 2007). Wadsworth (2001) offered what I consider to be a rather apt metaphorical description describing the facilitator's role as "The mirror, the magnifying glass, the compass and the map". In this project I sought to operate a flat organisational structure, where participants are positioned on an equal footing and decision-making placed in the hands of the participants themselves (Stringer, 2007). I believed that it would be problematic to draw conclusions without the full involvement of participants. In the past, research that has drawn conclusions without participant inclusion has become a source of discomfort. Consequently, this discomfort has caused a shift in researcher thinking "…from being deemers and certifiers of Truth, to being the facilitators of inquiry processes for others to come to their own truths-for-the purposes" (Wadsworth, 2001, p. 420). Carr and Kemmis (1986) contend that:

> If research is to achieve the concrete transformation of real educational situations, then it requires a theory of change which links researchers and practitioners in a common task in which the duality of the research and practice roles is transcended. (p. 158)

An influential factor which has helped teachers transcend, or gain accreditation, as researchers, could arguably be the teachers-as-researchers 'movement' advocated by Stenhouse (1975). This movement was triggered by Schwab's (1969) paper *"The practical: a language for curriculum'* which advocated a more practical rather than technical approach to curriculum theorising (as cited in Carr & Kemmis, 1986). When teachers work as researchers, the field is said to gain knowledge about the teaching process which consequently informs practice.

Furthermore, it is suggested that teachers involved in research develop personal theories of practice (Altrichter, Feldman, Posch & Somekh, 2008; McGahey, 1999).

The teachers in this project were considered co-researchers working alongside a facilitator to explore an issue of common interest. Prior to the project each of the participants had expressed an interest in exploring student-centred curriculum integration. However, as Carr and Kemmis (1986) point out, teachers do not naturally form groups for the benefit of their own enlightenment and, as was the case in this project, it can take the effort of a researcher to initially bring the group together. Yet it has been argued that outside researchers can 'manipulate' research to their own ends. This projects design helped to keep this issue in check with non co-opted participants, participant constructed research questions and a conscious awareness on my behalf to facilitate rather than manipulate the direction of the project.

As the facilitator I considered my primary endeavour was to ensure the research process was emancipatory. I concur with Stringer (2007) who suggests researchers "need to create the conditions that will mobilise their (participants) energy, engage their enthusiasm, generate activity that can be productively applied to the resolution of issues and problems that concern them" (p. 27). Focus group meetings were designed to be an instrumental factor in establishing the conditions discussed. Early in the project my role as facilitator was discussed with participants. During conversations and meetings every effort was made to stand back, listen and pose thought provoking questions throughout the inquiry. This was a comfortable position for me to assume having taken a facilitative approach to classroom teaching. Literature suggests facilitation skills include: attentive listening, probing, questioning, guiding, raising issues, method selection, summarising knowledge, and using Socratic wisdom to assist self-reflection (Carr & Kemmis, 1986; Cohen et al., 2007; Stringer, 2007; Wadsworth, 2001).

Reflective practice as part of participatory action research

Although reflective practice was touched upon lightly when discussing the cyclic phases of PAR, it was a central aspect in this project and consequently warrants more extensive discussion. In this subsection, I initially examine the literature before moving on to consider reflection in relation to this particular project. LaBoskey (1997) espouses the reflective teacher as "one who questions and examines, as much and as often as possible, the reasons behind and the implications of her [*sic*] knowledge, beliefs and practices" (p. 150). He purports that critically reflective practitioners ask themselves "Why" questions, such as: "Why am I teaching what I am teaching in the way that I am teaching it?" (p. 161). Renowned for his works on reflective practice, Schön (1983, 1987) suggests there are different kinds of reflection. "*Reflection-in-action'* involves unconscious modifications to practice as practitioners do, think and modify actions on the spot. '*Reflection-on-action*' takes place retrospectively in order to gain understanding from an experience. This kind of reflection is considered beneficial in terms of professional and personal development since it enables practitioners to improve practice and self awareness (Argyris & Schön, 1974; Johnston & Bradley, 1996). It is important to note that LaBoskey (1997) and Schön (1983, 1987) discuss reflective practice in general terms rather than reflection in relation to action based research.

Researchers who discussed reflection in relation to PAR suggested it differs significantly from reflective practice. The distinguishing variant is that PAR goes beyond reflection, it involves a strategic structure of action, planned to address a specific issue, and it uses coherent, systematic, and rigorous methodology (Leitch & Day, 2000; McMahon, 1999). Its aims go beyond improving individual teacher practice to include enhancing educational theory, and in the case of critical perspectives, enhancing social practice. Although reflective practice can be useful for identifying

issues, PAR is designed to provide answers (McMahon, 1999). While I would concur with McMahon (1999) I believe this PAR project went beyond reflection on practice incorporating a systematic research process that sought answers. Reflecting *in* and *on* action (Schön, 1983, 1987), and the questioning of practice (LaBoskey, 1997) were both also evident in the project.

A significant number of strategic reflection opportunities were planned as part of this project in order to provide answers to research inquiries. Regular focus meetings offered opportunity for personal and group reflections both retrospectively and prospectively. Electronic forums encouraged the documentation of personal reflections alongside group discussions. Reflection on thinking and practice provided teachers with the opportunity to examine their knowledge, understandings, and values and develop their own theories of practice. The aim was to enhance individual teaching practice and educational democracy. As Habermas (1974) suggests: “In a process of enlightenment there can only be participants” (p. 40). Enlightenment arguably requires reflection. Having discussed the central components of PAR, the next section outlines triangulation and then moves on to discuss data related issues.

Triangulation

Method triangulation was used in an attempt to gain a more holistic view of the research outcomes, and to strengthen the validity of the findings. Triangulation involves “the use of two or more methods of data collection in the study of some aspect of human behaviour” (Cohen et al., 2007, p. 141). It allows researchers to contrast and compare perspective variations, discrepancies and contradictions, offering richer data interpretation (Altrichter et al., 2008). This project used a variety of data gathering techniques which included semi structured interviews, focus group meetings, informal electronic and face to face discussions, naturalistic observations, work samples and photographs. Each of these will be discussed along with some of their

strengths and weaknesses along with the case study format which was adopted to report the data.

Data Gathering Techniques

Case studies.

When determining how to best document this inquiry a number of considerations were taken into account. First and foremost was the research issue and secondly was the methodological design. The inquiry did not involve recording the effects of one strategic action. Instead it investigated a variety of democratic actions, using a cyclic methodology and varied data collection methods. Further, the classroom research setting was multifaceted and unpredictable. Hence, a method was sought that went beyond simplistic interpretation so as to capture what Geertz called “thick descriptors” (as cited in Cohen, et.al, 2007) of what occurred through the eyes of the participants. The final consideration was the readability of the thesis for its audience, which I anticipated would comprise of educational academics and classroom practitioners. Bearing these issues in mind I determined a case studies approach was most appropriate.

Yin (2009) describes case studies as: “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 18). I consider this definition pertinent to this inquiry as the project aimed to develop a greater understanding of a current issue set within three unique classroom settings. Literature identifies different types of case studies including ethnographic, evaluative, educational, action research, exploratory, explanatory, descriptive, intrinsic, and instrumental (Stake, 2005; Stenhouse, 1985; Yin, 2003). Instrumental was considered the most suitable as it paralleled the intent of this inquiry. Instrumental case studies are said to offer insight into complex issues that are inherently linked to historical, social, personal and political issues. In keeping with critical theory they are designed to accomplish something other than just

understanding the case. Instrumental case studies can be extended to include multiple cases (Stake, 1995, 1998, 2005). Case studies were not only in keeping with the issue but also the methodology.

Case studies are also the most commonly used format for reporting PAR. The story-telling style captures events as they unfold during the cyclic inquiry process. MacDonald and Walker (1977) described case studies as “an instance in action”, which makes them well suited for a project such as this which was set within multifaceted and unpredictable classroom settings. The capacity to document spontaneous situations was an important consideration as the research issue encouraged teachers to pursue student suggestions. This study used a chronological narrative format providing a “straightforward account” of a real life situation, in an attempt to make this study accessible to teachers and academics alike (Robson, 1993). A well constructed project provides thick, holistic descriptions, which are strong in reality, enhancing reader understanding (Altrichter et al., 2008; Bassey, 1999; Carter, 1993; Coles, 1989; Stenhouse, 1985). These understandings can trigger action as insights can be “directly interpreted and put to use” (Adelman, Kemmis & Jenkins, 1980, p. 60). Detailed descriptors also offered the opportunity for intensive analysis of specific details which, in some instances, held the key to understanding a particular classroom situation or instance (Kumar, 1996; Robson, 1993; Stake, 1998). To gain thick descriptions, this project incorporated multiple methods of inquiry into its design. Yin (2003), a leading exponent of case studies, stated that although this form of empirical enquiry “investigates a contemporary phenomenon within its real-life context...It relies on multiple sources of evidence, with data needing to converge in a triangulating fashion” (Yin, 2003, p.13-14). Through the use of triangulated data it was my intention to provide the reader with a vicarious experience, helping them gain an understanding of a participant’s perception of events and what it might be like to be in their particular situation. Stake (1998) suggests vicarious experiences such as these can lead the reader to make ‘naturalistic generalisations’. In addition to using multiple methods, multiple case studies were also used to strengthen this project’s design.

Multiple cases are generally considered more compelling and robust than a single study (Herriott & Firestone, 1983). Yin (2009) suggests each case should serve a specific purpose within the overall scope of the enquiry. He likens this approach to multiple experiments which build on or complement each other. In this project, inquiry into student-centred curriculum integration is the connecting theme and the three case studies complement each other by using different aged students, in different school settings. Multiple cases are purported to have significant analytical benefits expanding opportunity for external generalisation of findings. Generalisations are used cautiously within this small qualitative study, with *fuzzy* generalisations preferred (Bassey,1999). *Fuzzy* generalisations make no claim of certainty hedging statements with uncertainty, suggesting there is a possibility that because an action is useful in one situation it may also be useful in another.

The use of multiple-case studies offered the opportunity to report on similarities and differences across cases (Altrichter, et al., 2008). However, researchers point out that generalisations are not always a necessary outcome (Bassey, 1999; Stenhouse, 1985). Despite the merits of case studies a number of limitations have been identified.

Perhaps not surprisingly, the capacity to generalise findings beyond a particular case is a perceived weakness (Adelman et al., 1980; Bassey, 1999; Bell, 2005; Yin, 2009). Descombe (1998) suggests, the potential for generalisation is dependent on the similarity of the study to others of its type. Bassey (1999) contends that if sufficient detail is provided teachers working in a similar situation can relate. Another criticism is that case studies are case specific and difficult to cross-check, with researcher bias and subjectivity difficult to discern (Aldeman et al., 1980; Adelman, Kemmis & Jenkins, 1980). Yin (2009) summarises a number of additional criticisms which suggest case studies lack rigor, they are time consuming and produce copious quantities of unreadable documents. Yin (2009) acknowledges that although good case studies are challenging to construct, methodical researchers can redress concerns. In this project, the use of multiple-case studies, participant validation through member checks and mixed methods were strategies used

to combat weaknesses. The ensuing section begins by discussing the first data collection method, the semi-structured interview.

Semi-structured interviews.

Interviews were considered a highly appropriate method for this study since they offered opportunity to gain insight on the participants' understanding and thinking concerning the research issue. Interviews have been defined by Cannell and Kahn (1968) as "…a two-person conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information, and focused by him [*sic*] on content specified by research objectives of systematic description, prediction, or explanation" (as cited in Cohen et al., 2007, p. 351). Interviews were positioned at the beginning and end of this project. Hence, comparisons could be made to determine what, if any, effects the research had on teaching pedagogy, professional knowledge or practice. Interviews are said to reflect natural human conversations which often result in the construction of knowledge. They offer a window into the mind, bringing, "out into the open" or exteriorising what is often hidden away and cannot always be ascertained through observing practice (Bryman 2008; Fontana & Frey, 1998; Hannabuss, 1998; Kvale, 1996; Patton, 2002).

Three interview options exist: structured, unstructured and semi-structured. The latter was preferred for this particular project since it struck a balance between the fully structured and unstructured format. It would allow the use of closed and open-ended questions and provide opportunity for negotiation and expansion of interviewees' ideas (Creswell, 2002; Partington, 2001). As an inexperienced interviewer, semi-structured interviews offered both flexibility and structure. The use of an interview guide sheet helped ensure the research objectives were met (Appendix B).

While semi-structured interviews strike a balance between structured and unstructured interviews it is suggested they only present a partial understanding of the experiences of others (Partington, 2001).

Studies report that contexts and interviewer bias can also affect validity, and that categorising interviews is fraught with unconscious interpretive baggage (Lee, 1993; Scheurich, 1995). In an attempt to redress concerns, verbatim transcriptions were provided for participants to check and analysis took place in consultation with participants. Focus group meetings were an supplementary method which offered an additional means of triangulating against traditional forms of interviewing (Cohen et al, 2007).

Focus group meetings.

Focus group meetings were considered central to the success of this project's design. These meetings were critical not only in terms of their capacity to generate rich data but also for the participants' well being. The teachers were spread across three separate schools, consequently I considered it essential participants meet together to critically reflect with a group of supportive, likeminded practitioners. The literature describes focus meetings as open-ended discussion groups shaped around a specific topic or purpose, hence the word "focus". The researcher, who is referred to as the *moderator* or *facilitator*, guides discussions, with conversations typically extended over several hours, (Robson, 1993; Waldegrave, 1999) as was the case in this project. Although a number of preset open-ended questions were considered to provide focus, the direction of the discussions was largely controlled by the teachers themselves. The most effective groupings are purported to be comprised of four to twelve people who share a common affinity (Waldegrave, 1999). This research team included four people whose shared affinity was the desire to explore student-centred curriculum integration. Four focus meetings were planned, closely aligned around the action-based research cycles. They consisted of professional development and dialogue, reflection on actions and the creation of fresh actions (Cohen et al, 2007; Tolich & Davidson, 1999; Waldegrave, 1999). To assist the reflection process two continuums were designed for use within focus meetings.

The continuum.

The first continuum was: *Student participation in classroom decisions and* the second: *Student participation during the planning process* (Figure 3). These were not an accurate percentage measurement; rather they were an approximation of where participants saw themselves in relationship to student involvement in decision making and planning. The continuums had dual benefits: they enhanced the reflection process and provided an additional source of data.

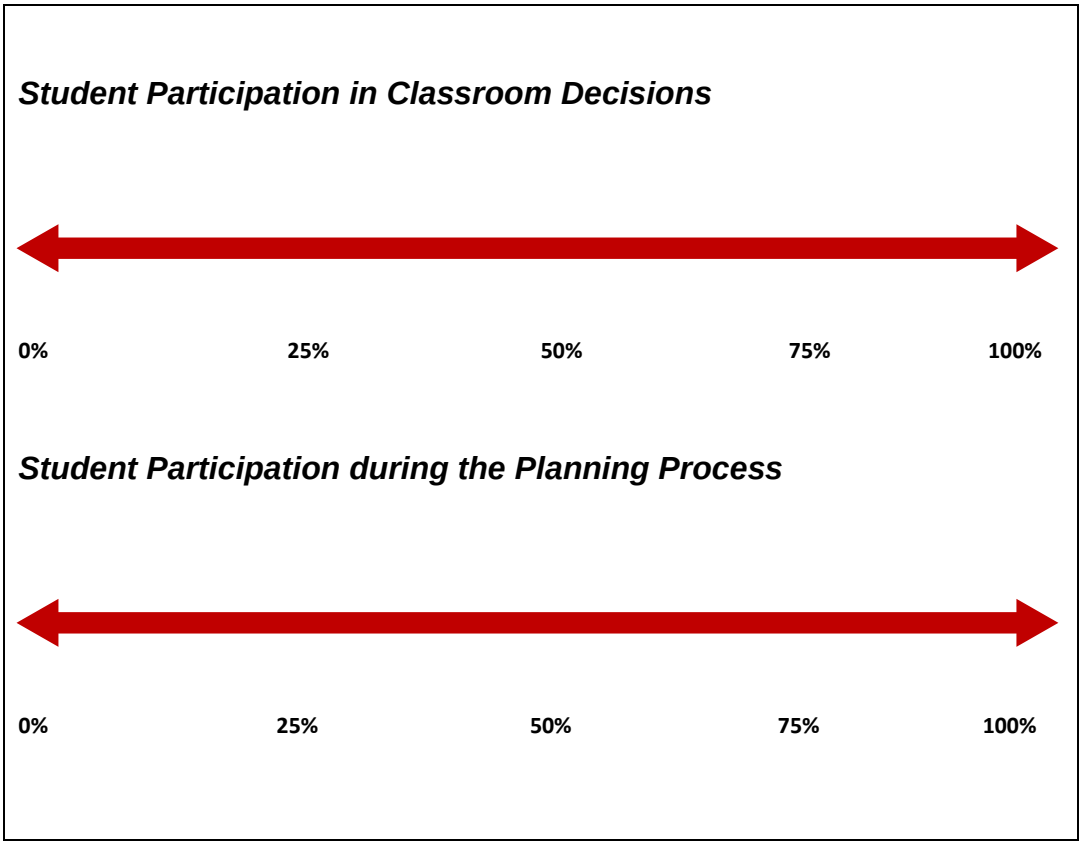

Figure 3: Self reflective continuums

While focus groups were considered essential for participant well-being, professional development and the reflection on past and future actions, a number of informal discussions were also incorporated.

Informal discussions.

Informal discussions allowed dialogue, support and data to continue beyond focus group meetings. Conversations occurred in various settings and used a variety of different mediums including: face to face, over the phone, and online. A secure "*ning*" website was created which was a versatile communication tool where participants could converse with each other, share photographs, professional readings, video clips and other resources. The website enabled participants to voice concerns, post reflections, share celebrations, teaching strategies and seek advice. While the inclusion of these kinds of discussions helped to determine what was taking place in classrooms it did not offer data collection in situ.

Naturalistic observations.

Naturalistic observations was a method which offered "opportunity to gather 'live' data from 'live' situations" (Cohen et al, 2005, p. 303). During this project several classroom observations were planned for each case study. It was anticipated these would take place at participants' request or when appropriate. The intention was to gain a more holistic view through combined methods creating thick descriptors rather than relying solely on participant conversations (Maykut & Morehouse, 1994; Morrison, 1993). Observations would provide opportunity to detect issues that may otherwise be overlooked while providing a fuller understanding of the research context (Cohen et al., 2007; Wilkinson, & Birmingham, 2003). Open discussion about the nature of this project had already taken place with teachers and students; consequently during visits, a participant-as-observer role was taken. Taylor, Wilkie and Baser (2006) suggested this is when the observer "becomes part of the group being researched, and understands the situation by experiencing it. In this respect, the observer tries to see life as it really is" (p. 33). Assuming a participant-as-observer role had the additional benefit of enabling me to ask children to explain or

elaborate on their contributions or work samples. Robson (1993) suggested that when working in school settings children typically ascribe the researcher as having a role akin to a teacher. In this project, children were very keen to include me and discuss what was taking place. Like most other methods, observations are not immune to potential problems.

A change in behaviour can occur when participants are aware they are being observed. This change is known as the Hawthorne effect where observations become inaccurate or distorted as they do not represent normal behaviour. In addition, observations can suffer from observer bias making inferences difficult to verify (Kumar, 1996). My intention was to minimise this occurrence by making regular visits to the classroom allowing time for the participants to become more comfortable with my presence.

Work samples and photographs.

Work samples and photographs are the final data collection method to be discussed. These were included to supplement core methods thereby creating a fuller picture. Photographs were taken of co-constructed planning along with displays, work and learning. Photographs had the additional benefit of enabling teachers to capture the learning that occurred when I was not present in the classroom.

The data techniques discussed above were integrated throughout the different phases in the PAR.

Data Collection

In keeping with the action-based research process, data collection occurred throughout the entire research period. The tools and techniques discussed above were integrated throughout the various phases. Two semi-structured interviews were conducted with each participant, one at

the beginning of the project and one at the end. Four focus group meetings took place at the beginning and end of each cycle. Other methods were peppered throughout the nine month period (Figure 4). Once data was collected analysis and interpretation took place.

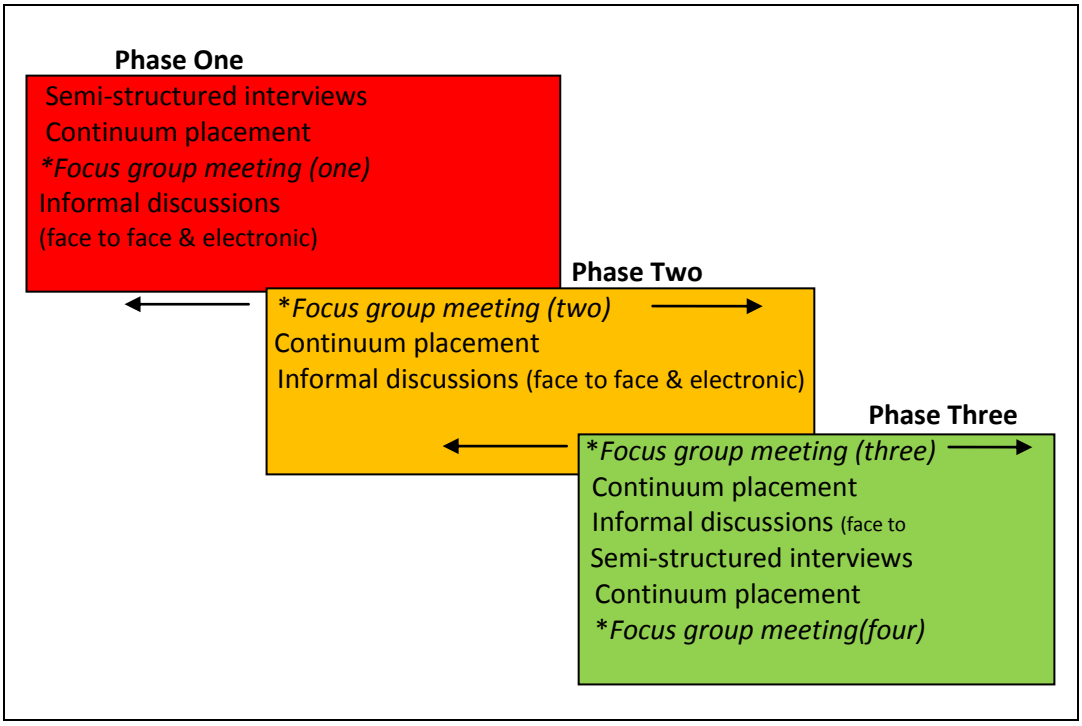

Figure 4: Data collection phases

Data Collection

Data analysis and interpretation

When undertaking initial data analysis, preliminary exploratory analysis was used. This involved reading and re-reading documents and transcriptions in order to gain a broad sense of the data (Creswell, 2002). This process allowed me to become familiar with the detail, determine if further data was required, and consider organisation before information was broken into smaller parts. During the initial reading, notes were taken of key ideas, along with, hunches, puzzlements, inconsistencies, phrases, and emerging themes (Creswell, 2002).

Preliminary exploratory analysis was followed by ‘describing and developing themes’. Creswell (2002) points out that this goes beyond general or broad data to identifying themes that address research questions. Qualitative researchers do not always supply both themes and descriptions, choosing to select one or the other dependent on the research design (Creswell, 2002). In the case of this project, both were considered valuable, with descriptions woven throughout themes in an attempt to provide the reader with a more comprehensive picture of the participant’s situation and perspective. Key experiences were also incorporated; Stringer (2007) and Denzin (1989) discussed how significant incidents often result in ‘lightbulb’ or ‘aha’ moments that provide clarity or enlightenment. Themes for this project were determined using a *coding process* described by Creswell (2002). The coding process involved bracketing and labelling data segments for meaning, asking “What is this about?” (Creswell, 2002, p. 266). Miles and Huberman (1994) suggested it is not so much the words themselves but their meaning, so that clustering and categorising sets the stage for ‘drawing conclusions’.

The labels established were then re-examined for overlaps or redundancy and codes were compacted into five interrelated themes. I elected to analyse the data by hand because this was a small project and it allowed me to “…be close to the data and have a hands-on feel for it” (Creswell, 2002, p. 261). Wherever possible labels used the participants’ own words, called *vivo codes* (Cohen et al., 2007) or the *verbatim principle* (Stringer, 2007). Theoretical cohesion was sought when determining themes, and therefore research issues such as power relations, democratic practices and institutional structures were considered. During the final focus group meeting a summative reflection took place with individual themes and commonalities considered with the participants (Appendix C). Carspecken (1996) urged critical theorists discuss and generate data *with* participants in an attempt to democratise the analysis process. I considered it important that participants be included in the data analysis process. To raise participant contribution, frequent member checks took place and data related conversations were embedded within

each research cycle. Having discussed preliminary exploratory analysis, coding the data and the development of themes, the final stage to be discussed is interpreting evidence and reporting findings (refer Appendix D for examples of coding process).

The findings from this study were reported using a narrative discussion with a written passage used to summarise findings from data analysis (refer discussion chapter 5). Research questions and central themes were discussed and conclusions drawn that link, and add to theory. Implications were considered in light of critical theory in an attempt to shift beyond describing the situation to understanding it, questioning it, and changing it (Cohen et al., 2007).

In many ways it could be argued that the process described above is a rather simplistic explanation of interpreting and analysing data from PAR. The cyclic methodology means it was not as linear or step-by-step as perhaps could be intimated from the discussion above. Many themes emerged early in the research, for example questioning; others such as teachable moments and power sharing challenges emerged later. Consequently, general analysis was occurring *throughout* the research, particularly during focus group meetings when time was taken to reflect, summarise and contrast experiences. The process described above is a more systematic final summation of what took place over the nine-month project. This process has been made transparent in an attempt to demonstrate trustworthiness and authenticity.

Trustworthiness and Authenticity

This project was qualitative rather a quantitative; consequently the terms trustworthiness and authenticity will be used rather than validity and reliability. In quantitative research, validity is whether research measures what it alleges to measure. Reliability is viewed as the extent to which a procedure can consistently produce repeated results (Bell, 2005; Creswell, 2002). Qualitative research presents an alternative proposition to validity

and reliability, with trustworthiness and authenticity used to judge qualitative studies (Bryman, 2008; Guba & Lincoln, 1994). This project was designed to avoid research biases and generalisations through the use of member checks and multiple methods.

Methodological triangulation was incorporated with six different data collection techniques included to strengthen trustworthiness and authenticity. Triangulation was incorporated since it "adds rigor, breadth, complexity, richness, and depth to any inquiry" (Denzin & Lincoln, p. 5, 2005). The limitations of each method were considered and attempts were made to minimise potential issues. One example is the use of carefully constructed interview questions to avoid steering participant thinking and the checking of transcripts.

Regular participant consultation was an important aspect of this project. To validate data, member checks or respondent validation was incorporated. This involved participants checking data to ensure reporting represented an accurate account of their perspective (Bryman, 2008; Maykut & Morehouse, 1994). In keeping with critical theory participants were also involved in data interpretation and analysis, helping redress interpretation bias. Having discussed issues relating to data analysis and interpretation this chapter concludes with a discussion of ethical considerations.

Ethical Considerations

Ethical considerations central to this project included: gaining informed consent without coercion, protecting the participants from harm, and reporting findings in a trustworthy manner.

The consent process has been described as the cornerstone element in the ethical process (Finch, 2005). In this project, written consent was sought from principals, teachers, parents and students. This concerned making sure all participants were *fully* aware of what the project

involved and ensuring they understood they had the right to withdraw at any stage prior to final data analysis (Appendices E-H). Student consent was considered carefully with developmentally appropriate methods employed in an attempt to avoid children viewing the research as another piece of compulsory school work (Alton-Lee, 2001; Descombe & Aubrook, 1992). I talked to the children about the project, encouraged them to ask questions and used a simplified consent form. Permission was sought to record comments and take copies of work. Discussions highlight the need for consent to be an ongoing process, rather than a one-off procedure. It is argued that re-negotiation and clarification is necessary throughout the entire process particularly when working with children (David, Edwards & Alldred, 2001). Conscious of this issue, consent was re-checked whenever data was collected, and the participant's right to withdraw, or withhold work samples and comments was reiterated. Not only was consent vital but so was the need to protect participants from harm.

Protecting participant identity is an important strategy in preventing harm. Precautions were taken to minimise the identification of schools or participants through the use of pseudonyms. Scant school details were provided and protective measures were taken to disguise the identity of participants when taking or including photographs. Teacher interview questions were centred on the research issue and data of a personal nature was not sought. Participants were not asked to make comment or evaluate others. Teacher observations took place for the sole purpose of discussion and reflection. Material was not used to make judgements concerning teacher efficacy or used for the purposes of appraisals.

The final ethical responsibility is reporting findings in a trustworthy manner. This responsibility requires a high level of transparency, professionalism and honesty. During this PAR project participants were considered part of the research team. They were provided with summary notes, verbatim transcripts and a *ning* website. These forums offered participants the opportunity to check that their perspectives were captured accurately, make comments and amendments, and ask questions.

Working within a team is said to keep members honest, and it has been suggested that questions raised can assist in minimising bias (Bryman, 2008; Denzin & Lincoln, 1998; Maykut & Morehouse, 1994). Research supervisors provided an additional peer review forum to discern and scrutinize the legitimacy of this project. Throughout the project I was aware of my moral and professional responsibility to report accurately and only use data for the purposes agreed (McMurray, Pace, & Scott, 2004).

Chapter Four

Results

Introduction: Three Case Studies

This chapter provides a chronological narrative of each participant's journey throughout the study. Each story is told separately, and is framed around the cyclic action-based research phases that occurred throughout the project. I elected to report using a case study approach in an endeavour to provide the reader with as rich and vivid a response as possible to the research question:

> *What happens in classrooms where teachers are attempting to incorporate the democratic principles and practices inherent in student-centred curriculum integration?*

Before reporting on the three phases, an outline of each participant's teaching experience is provided. My justification is that despite all co-researchers having completed the curriculum integration paper, their starting points varied significantly, and were dependent on teaching context, age level, experience and confidence.

The reporting of phase one begins with data collected during the initial semi-structured interview. An account of the first focus meeting follows along with data from classroom actions and reflections. Concluding the cycle is the second focus meeting. Phase two documents classroom actions and reflections, and the subsequent third focus meeting. In the final phase, actions and reflections are once again reported, together with an account of the last semi-structured interview and concluding focus meeting. Each

research phase overlaps, with the questions posed at the end of each cycle, beginning the successive cycle. Four continuum reflections take place throughout the three cycles. Following the final case study, the research group's collective summary of the project as a whole concludes the chapter.

The first case study to be discussed is that of Toni Taylor. This is followed by those of Mikayla Moore and Sasha Smith.

Case Study One: Introducing Toni Taylor

At the beginning of the project Toni Taylor was entering her third year of teaching; she was the most experienced participant and only fully registered teacher. Since completing her degree, Toni has worked at Turner Primary School in the Bay of Plenty where she spent her first two years teaching junior children. During the project Toni was embarking on her first year teaching seniors, aged nine and ten (year six). Toni found herself, plus her 25 students; sharing a cramped prefabricated building. Toni's story begins with data gleaned from the initial semi structured interview.

Phase One

Semi-structured Interview

An interview guide sheet was used with data summarised under four central themes (Appendix B). These include: teaching philosophy, curriculum, curriculum integration and continuum placement.

Toni's teaching philosophy.

Toni believed it was important to create an inclusive classroom environment where children are respected and contributions valued. An inclusive classroom would encourage pupils to learn in individual ways, redress past barriers, maximise learning and subsequently increase levels of confidence.

Toni saw her role to be a facilitator rather than a teacher. Facilitators, she explained, provided optimal, safe learning environments.

Providing support, identifying need, and living student's learning… It's my job to scaffold whatever learning they need at the time they come across it. When a child says: 'Oh I want to do this, but how do I get to do that?' it's my job to say; 'well okay then, let's have a look'.

Toni considered every child's learning pathway to be unique, she believed it was her job to provide guidance. The curriculum was seen as a starting point, or base, which would provide guidance on what students need to achieve. She believed children often know what they want to learn about, or need to learn, and considered it her role to slot curriculum in accordingly.

Curriculum delivery.

When discussing planning, Toni explained that the syndicate predetermined the topic and writing focus for term one. The numeracy programme was used to teach mathematics, with groups streamed across the syndicate. Although she had her own ideas, as a new member of the syndicate, she felt pressured to conform to more experienced teachers' suggestions.

Toni's programme ran in distinct blocks with writing and numeracy taught in the mornings, and guided reading and topic in the afternoons. Toni was eager to implement a more student-directed approach to curriculum delivery, wanting to 'walk the talk' and 'break the ice' in her school. She believed the revised curriculum supported this thinking with the addition of key competencies. She felt nervous about the change in teaching level and expressed her concern about entering an established senior syndicate with structures and leadership that had been in place for many years.

I know curriculum integration is what my school wants to do, but …no teacher yet has stepped out and actually done it fully, and

had children totally, well 70-80% controlling the classroom as far as planning is concerned, and I think there is probably a bit of reservation from some teachers because the children are leading it. Maybe it's a control issue, maybe it's because the old ways worked, so why change what we do because it's worked in the past?

Curriculum integration.

Pure integration, according to Toni, starts with children's questions, or an issue of interest which stimulates discussion and triggers questions. This approach, she believed, makes learning more purposeful because it is framed within a context children understand.

It is all about what's going on in their life now…they are asking the questions, finding the answers, and doing the research…It's not all about you telling them what they need to learn. That's what integration is to me.

Toni was motivated to explore curriculum integration further, believing the approach catered for diversity, and addressed children's learning abilities. Since the approach is child driven, she considered it would be relevant, and learning would be retained.

When discussing the disadvantages and challenges of curriculum integration Toni considered the approach to be tiring.

It can run the teachers ragged because resources are often gathered day by day, and planning takes place either on the spot or after the event. You'll plan for the day, or two days ahead for what you think is going to be needed, then it can totally skew off in a different direction making you back pedal.

Documenting planning, she thought, would be a challenge. Her concern was what level of planning would be sufficient to cater for accountability purposes.

This year, Toni had not explored integration due to syndicate pre-planning and assessment demands. However last year, Toni trialled incorporating student ideas and questions into a few pre-planned units. The theme “In My Backyard” she viewed as particularly successful. It involved children posing questions, grouping ideas into themes, researching, consulting experts and developing their own success criteria. Toni considered this form of curriculum delivery was a closer match to her teaching philosophy. Holding a permanent position and beginning her third year of teaching, Toni felt more confident to explore pure curriculum integration. Moreover, Toni held an emancipatory perspective believing her actions may enhance other teachers practice.

> *I think that if I put my foot out…and demonstrate how great it is in my classroom, it will have maybe a flow on effect. I could show other teachers how to do it in their classroom and then it will just flow through the whole school and people would become infected with it… people will say this is what we've been talking about doing but we haven't done it, and this person has.*

Toni's continuum placement.

During the initial semi-structured interview, Toni considered she included students in approximately 20% of planning and 12% of decision making (Figure 5). She wanted to explore strategies which would raise student involvement to 70-80% in both. Shortly after Toni's initial interview was completed, the first focus meeting took place.

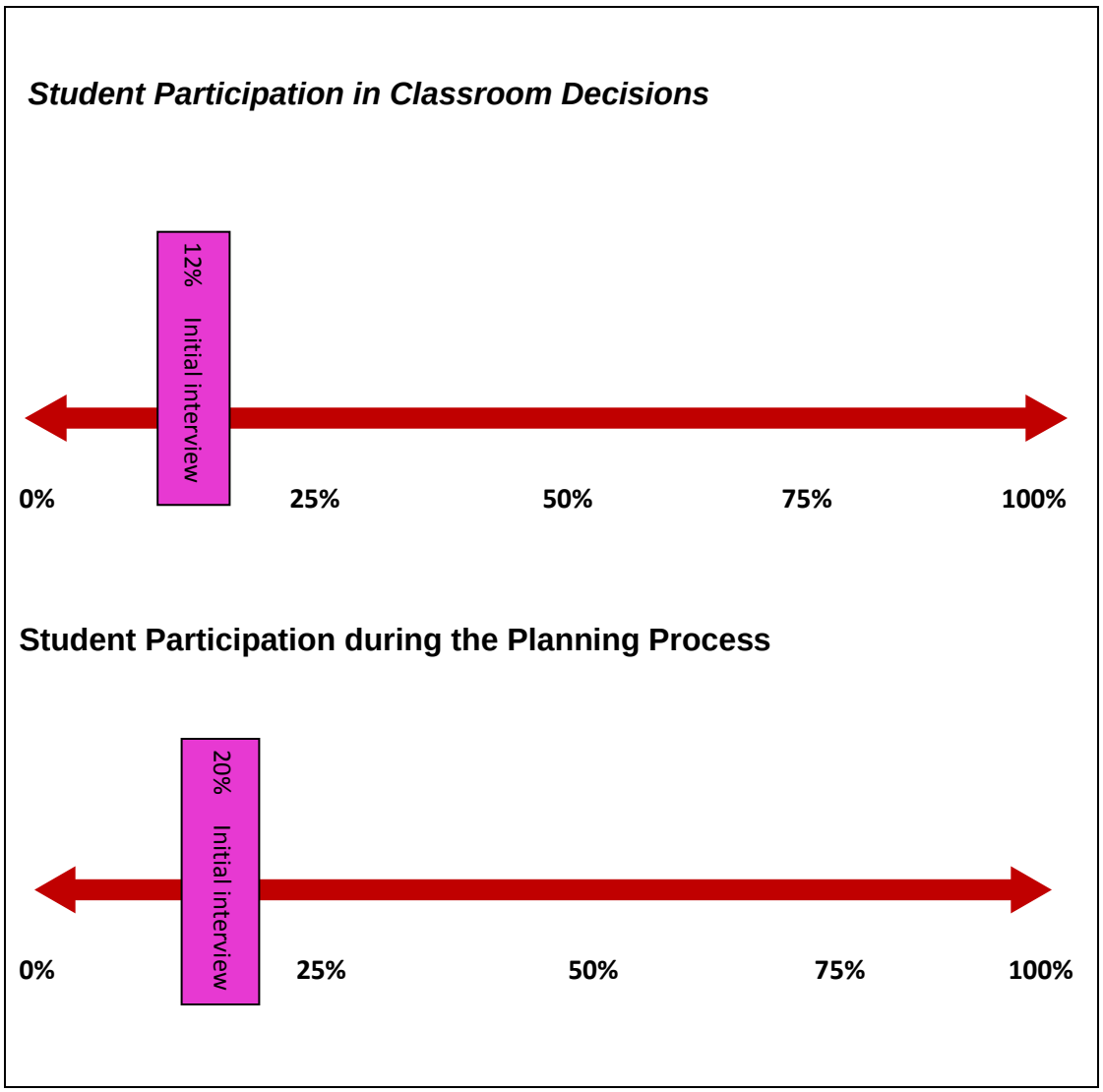

Figure 5: Toni's initial interview continuum placement

Focus Group Meeting One

During the inaugural focus group meeting, substantive discussions took place on how more student inclusion might be incorporated into current teaching programmes. Discussions were recorded using brainstorm charts: 'How might we set the scene for student-centred curriculum integration?', 'Creating thinking environments?', 'How might we include students in more classroom decisions?', 'How might we begin to involve students in the planning

process?', 'What skills, strategies and knowledge might we need?' (Appendix A). Based on these discussions Toni determined she would set the following research question:

> *How might I set the scene for beginning curriculum integration in my classroom?*

Teaching at a new age level, Toni felt it was important to begin slowly, establishing a more inclusive learning environment before involving students in planning. Having older students, she felt she could be quite transparent by sharing decisions and openly discussing the research project.

Classroom Actions and Reflections

Toni began by asking students directly about the kind of classroom environment they would like, decisions they wished to be involved with, and how they wanted to learn. Toni used excerpts from two books to trigger initial discussions: *The School I'd Like* (Burke & Grosvenor, 2003) and *Chasing Vermeer* (Balliett, 2004). These books had been shared at the initial focus group meeting as they challenged traditional concepts of curriculum delivery and schooling, providing food for thought. As the title implies *The School I'd Like* documented student ideas about school, and *Chasing Vermeer,* a fictional book described a rather nonconventional teacher from Dewey's Chicago Experimental School, who explains to her students that she didn't know what they would be learning as "It all depends on what we get interested in - or what gets interested in us" (Balliett, 2004, p. 6). Building on these texts, Toni's class brainstormed, and then drew "The Classroom I'd Like". Children were encouraged to be creative. Consequently children included time-travel machines, pet areas, libraries, sports courts, cooking areas, sewing, technology suites, hydro slides and swimming pools. The students' written explanations required explicit teaching on explanatory texts;

this enabled Toni to address the school writing focus within a relevant learning context (Figure 6).

The classroom I'd Like – By Sarah and Michelle

If we imagine the best classroom we could have for the best learning we could have it would be something like this:

For the classroom I'd like there are ten classrooms/places and eleven other activities to do. In the top left corner there is a rocket ship and a helicopter and in the bottom left corner there is a roller coaster, a hot pool and bumper cars. The rocket ship is to travel the stars and the planets and learn all about them. Between the rocket ship and the bumper cars there are gardens and a zoo, beside them is a tree house. On top of the roller coaster is a time machine so we can travel back in time to learn about all the important stuff in the world that happened before we were born. Beside the classroom is a water slide and crate climbing activities so we can be fit and have fun. Crate climbing is also good for us to encourage each other and team building.

The ten classrooms/places are make-up and hair class, cooking class. A restaurant with free food, history class, sports class, a giant shopping mall with free stuff, a museum, cinemas, a music class and the best one is a room that tells you about all of the kids that are in our class and the ones that have been before. There are no steps going up to the top in the classroom area so you have to get dropped into the top classrooms by helicopter and if you want to go across to the 2 other classrooms next to the classroom you were dropped into, then go through the doors but if you want to go down a level then jump down the trap doors. This encourages us to think and problem solve because the way to get in changes all the time. Our classroom we'd like is very colourful because people are mostly happy when their colour is around them inside and outside. Everyone is happy and the teachers get to do all the fun stuff the same as the kids.

Figure 6: Pupil's drawing and description of "The Classroom I'd Like."

While students continued to work on classroom designs and explanations, a number of discussions took place. Conversations were shaped around key questions: What decisions does your teacher make that you think you could make together? How would you like to learn? Table 2 shows the collated responses as agreed with the class.

Table 2: Decision making and how we would like to learn

What decisions does your teacher make that you think you could make together?	How would you like to learn?
We could design our own homework. We could choose how we set out our work. We could give our ideas about topics to study. Vote for topics and plan our own work. We could decide on games we play by voting. We could organise jobs and the duty board. We could take turns being leader. We could call the roll and answer the phone. We could have group points. We could choose star of the week but you cannot choose yourself. We could organise the class meeting and plan the agenda. Choose the order of our subjects.	We could teach each other our talents. Get experts in to teach us. We could have cooking classes. Go to a restaurant and have a chef visit. Go on class trips to the zoo, movies and Kelly Talton's. Have more subjects: Astronomy, rocket science, more maths, spelling, art crafts and sport. We could have a couple of laptops in our class all the time. Listen to ipods while we work. Learn about things we haven't learned before and have more help with things we want to improve on. In a bigger classroom.

Acknowledging contributions, Toni made a significant number of classroom changes. Students assumed responsibility for organising duty

rosters, with weekly leaders elected to facilitate the process. Duties suggested included, calling the roll, creating the problem of the day, games leaders, star of the week selection, and hui (meeting) organisers. In addition to leading meetings, students created the agenda. Meetings included celebrating achievements, sharing news, discussing issues and co-constructing negotiables and non-negotiables for the following week. Toni openly discussed school requirements. Non-negotiables included: explanatory writing, printmaking, measurement and energy. Many student-initiated ideas were incorporated immediately with visits from sports experts timetabled into the up-and-coming programme. Toni noticed sharing responsibility involved students having to apply key competencies, in particular, participating and contributing, and self-management.

In the interim children had completed "The Classroom I'd Like" task. While observing I noted how well children were able to justify their designs. One group explained that the time travel capsule would allow them to experience history and explore the future. This would help them learn about different countries, historic events and know what skills they required for the future. Another student explained that a pet centre would teach them how to care for animals, and understand about habitats. A kitchen was included to teach cooking, healthy eating, measurement and temperature. Aware of how ambitious students' ideas were Toni asked *"What from their dream classrooms could become a reality?"* Lengthy discussions ensued with students deciding many ideas were quite feasible. They decided to create a cooking area with a microwave to heat and make lunches, acquire a class pet, obtain cushions and a couch to enhance the classroom environment. Students decided they should write individual letters to parents seeking support with items. Consequently, explicit teaching of letter writing took place. Toni decided she could incorporate the school-wide printmaking theme by personalising cushion covers with student created designs. Despite taking on board most suggestions, Toni instinctively rejected the most ambitious

proposal. A team of boys, whose lead speaker rarely contributed to discussions, suggested:

> *The classroom is too small and we want to make it bigger.*

Toni's immediate response was *"Oh no, we can't do that."* Students faces dropped and they sat down quietly. For the rest of the day, and into the night, Toni said she was haunted by the look on her children's faces.

> *They must think I am all talk, I had automatically said 'no'. Why on earth did I do that? They must think all this talk of student input is rubbish.*

The following day Toni apologised for her knee jerk reaction and revisited the extension proposal. After significant discussion, the class decided, despite the strong possibility their idea may not come to fruition, and the likelihood of a lengthy process, they were keen to undertake the project. They suggested future students, including their brothers and sisters would benefit and they would be happy knowing they had initiated the project. A statement of intent was written:

> *We want to make Room Six bigger so we have more room to move around, have different learning areas and great experiences.*

The class decided they would need to consult experts for advice including architects, builders and the council. They anticipated they would need to write to the principal, or make a presentation to the Board of Trustees outlining their plans, and eventually their final designs. Additional tasks involved, drawing plans, determining costs and generating fundraising ideas. Toni predicted teaching scaffolding would include specific teaching on measuring area, writing different types of letters, making presentations and calculating costs. Toni was excited and daunted by the evolving unit. Toni's primary concern was how she would track curriculum coverage for

accountability purposes. Toni sought my support and together we designed several planning templates to document teaching and track curriculum coverage as it evolved (Appendix I).

The children wanted to begin designing classroom alterations immediately but Toni recognised the need to teach specific measuring skills in order for the children to be able to draw to scale. This provided a relevant problem-solving task which incorporated the school-wide measurement requirement. The class discussed the skills required, and in groups made one square metre of paper. This was used to estimate and measure different areas around the school helping students develop a sense of area. Applying this knowledge they drew their classroom to scale using quad paper. Students created different extension plans which were measured at ground level to provide an accurate understanding of size. Students extended the room in various directions with some adding an additional story (Figure 7). The class went on to construct a flow diagram predicting the building process (Figure 8).

Toni believed the classroom events and discussions described had evolved naturally into student inclusion in planning. Toni was eager to share her experiences with the other research participants at the focus meeting.

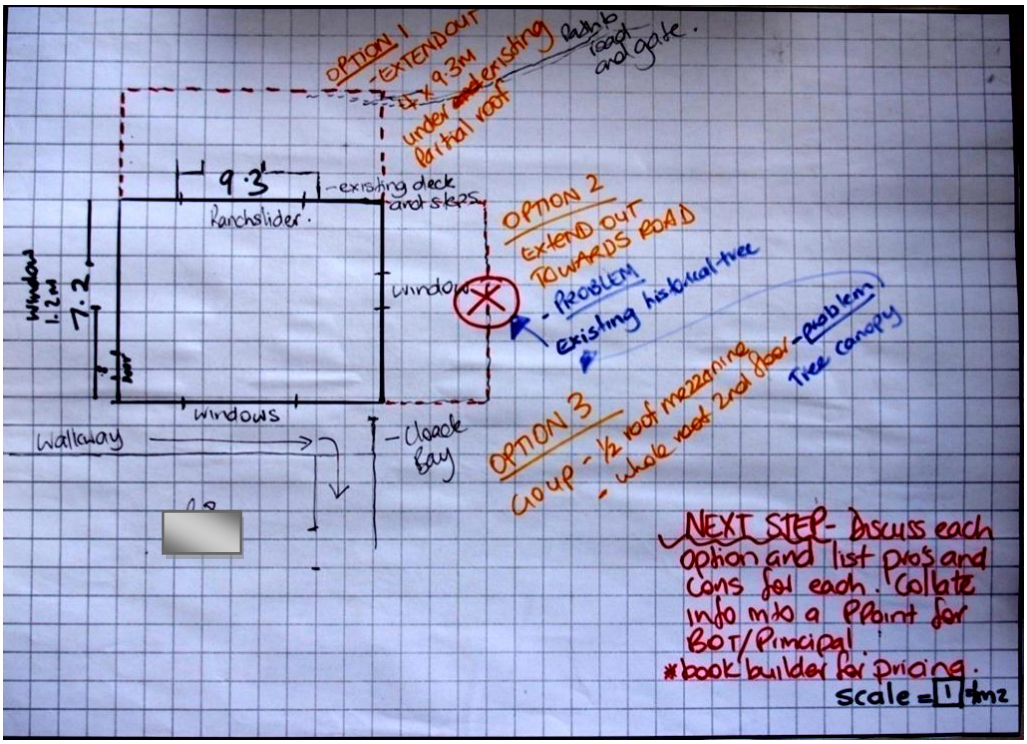

Figure 7: Classroom extension options

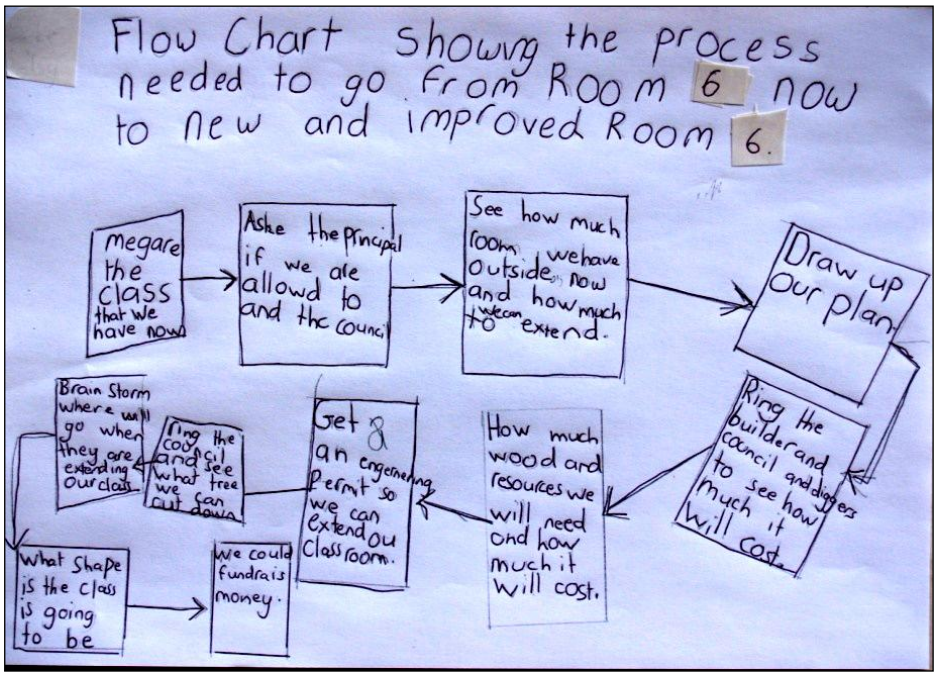

Figure 8: Student prediction of building process

Focus Group Meeting Two

The second focus group meeting allowed Toni to share her experiences with the other participants, reflect, raise concerns, and set her next research question. Several professional readings were discussed and reflections made on initial continuum placements.

Toni reflected on her research question:

> *How might I set the scene for beginning curriculum integration in my classroom?*

Toni felt she had set the scene in a number of different ways; she had asked explicit questions which invited students to share in classroom decisions, offer ideas on learning, and discuss the classroom environment. Continuum reflections saw Toni move student participation in decisions from 12% to 50%, and planning contribution went from 20% to 50% (Figure 9). This shift was attributed to a conscious attempt to include more democratic practices, frank discussions, and a genuine endeavour to consider and act on student suggestions.

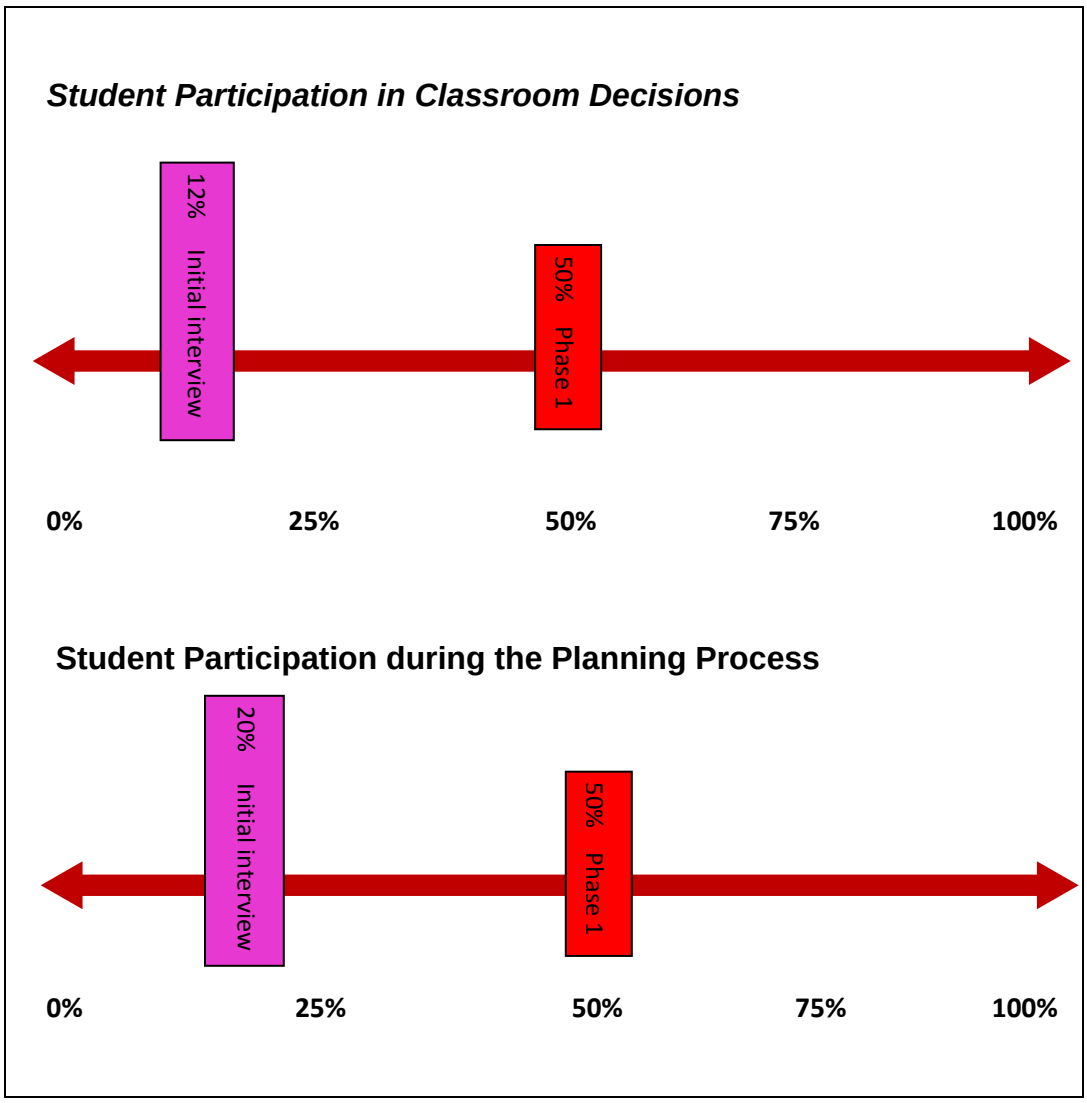

Figure 9: Toni's cumulative continuum placements at the completion of phase one

Co-researchers said they were inspired by the level of student input Toni had initiated in such a short period of time. However, the pace and size of the *project* was concerning.

> *My next step: SLOW DOWN and think about the learning…I really want this to be something that does happen, so I have to think about insuring the process is as tight as possible. I need to backtrack and make sure the learning is transparent.*

Consequently Toni posed the research question:

> *How could I include students more throughout the planning process, maintain quality teaching, and track learning for accountability purposes?*

A number of actions to address this question were introduced in the second phase of this case study.

Phase Two

Classroom Actions and Reflections

Toni decided to trial a learning journal in the form of a chart hung on the classroom wall. Pages would be added as the unit progressed and later collated into a class book. This idea stemmed from a suggestion Sasha made during the focus meeting. Toni considered this a valid option, enabling students, senior management and visitors to observe the learning taking place. Brainstorming, photographs and work samples would be pasted on charts, along with curriculum achievement objectives which would be highlighted as the unit evolved.

Toni pursued the children's suggestion, and contacted the council for advice. Consequently, the environmental planner offered to visit. During this visit students shared their work with the council representative who was impressed by the building process predictions and the draft classroom designs (Figures 8 & 9). He provided advice on costs and building consent processes (Appendix J). Children asked numerous questions and raised the issue of a historic tree beside the classroom. Following discussions about growth rates and tap roots, students decided to eliminate plans on the tree side of the classroom along with the costly two storey option. Students shared ideas they had for making the classroom warm and environmentally friendly.

Insulation, building materials, windows for light and heating were discussed providing potential links to an up and coming energy unit.

In addition to measuring the class in square metres, Toni suggested students work out the size of their class in cubic metres and compare it with the classroom next door. The purpose was to extend their understanding of area and volume. The teacher in the adjacent room was keen for her children to join in the problem-solving task. Working in groups and only using newspaper, classes were challenged to make a cubic metre (Figure 10). A combination of measurement and student-made cuboids was used to eventually determine the size of each class. Toni's pitched roof extended the challenge significantly. By using three dimensional triangles as well as cuboids the class determined that Room Six was 20 cubic metres smaller than the class next door.

Figure 10: Making cuboids

As part of justifying the extension Toni advised students to objectively discuss needs versus wants, as a number of ideas were fairly ambitious. This raised a discussion on types of work spaces to be considered as part of the final design. Suggestions included: a chill out library area, extra desk space, display areas, more mat space, ICT hub, some extra learning areas, plus a place for art.

While the majority of the class were highly engaged, two children had become less zealous. Toni discovered one child wanted to do more art, and the other, having been diagnosed with ADHD, wanted to return to a more structured programme. Toni suggested that the first student might enjoy designing classroom cushion covers, an idea that was greeted with enthusiasm with the student becoming fully re-engaged. For the second, Toni decided to write the timetable back on the whiteboard. Each morning the programme was discussed and any potential deviations explained; this strategy proved to be highly successful.

Toni noticed student decision making was having a spill over effect into other parts of the programme enabling the class to anticipate and resolve problems. Letter writing during phase one had resulted in various items being donated, including, a microwave, a bird, cushions and a couch. Anticipating potential problems the children suggested guidelines would be needed. They created rosters, wrote rules, and developed turn taking systems. An example of problem resolution was evident during the wet lunch time incident reported in the opening scenario of this thesis.

Shortly after, a further confrontation occurred when a reliever was taking basketball. The children told Toni they were ashamed of their actions and believed a consequence was called for as they had spoken disrespectfully to each other and the teacher. A meeting determined how future incidents could be prevented with ideas recorded on a chart. The consequence was to:

Write letters of apology and lose what had become most precious to them, which were the privileges that came with their power sharing classroom environment.

A formal programme was implemented with no student involvement in classroom organisation or decisions. The children told Toni they hated the formal timetable working fervently to get privileges reinstated. Toni commented that *"They had learned that with power comes responsibility".*

Earlier in the project Toni had asked students *"How do you want to learn?"* One suggestion had been to use experts. Based on students' suggestions Toni invited a number of athletes to coach a variety of sports, including hockey and wheelchair basketball. Recognising their own expertise students suggested they teach each other, using Gardner's (1983) multiple intelligences or SMARTS. Intelligences included: body smart, maths smart, music smart, nature smart, self smart, picture smart and word smart. Students decided to plan a 30 minute lesson to teach their peers. Building on the curriculum knowledge students already possessed, Toni modelled how to write and structure lessons, and how to assess learning. Teaching was very successful with students providing 'experts' with feedback on their teaching (Appendix K).

After these teaching sessions, Toni determined it was time to broach the classroom extension proposal with senior management. The staff member reported that unfortunately there would be insufficient money for such an ambitious proposal as there were already several large projects planned which were higher priorities. Toni explained that students had considered this issue and generated a broad range of fundraising strategies to fund the extension. The staff member explained that Room Six was a prefabricated classroom and it was likely it may well be removed some time in the future.

Despite this significant setback Toni believed it was important students be given the opportunity to present their ideas to the Board of Trustees so the

cramped classroom could be brought to their attention. This process would validate extension plan work, and possibly result in senior students being given larger classrooms in future.

In the meantime, Toni decided to explore co-constructed planning. She shared the school's non-negotiables with her students which included speeches, argumentative writing, numeracy project maths, calendar art and energy. The class considered long term plans and the weekly timetable (Appendix L). The children wanted to negotiate having an overnight camp on the school grounds. They justified this by suggesting activities would incorporate significant new learning. Ideas included orienteering and map reading, inviting an expert "star gazer" to teach astronomy, tent erecting and a number of team activities. Toni realised the camp context would provide a meaningful context in which to apply the school's persuasive language focus. Consequently, the students wrote a letter to the principal outlining their reasons for wanting a camp. Toni pre-empted the children's disappointment by warning them camp would probably not be allowed as they had already been to camp at the beginning of the year. Toni discussed how learning to listen to the opinions of others and make compromises was an important skill to acquire in life. The outcome was that the children were unable to have an additional camp because of funding and the implications an additional camp would have on other senior classes. One child commented on the pointlessness of giving their ideas. This led to Toni's resolve to confine students' ideas to suggestions that were not reliant on circumstances beyond her control.

Soon after the camp incident, Toni recognised another opportunity for her students to plan collaboratively. A visiting presenter came to the school to teach children about road safety. Following the presentation Toni asked her class what they thought. Students said although they learned some things, the presentation was boring, and they believed little kids would not understand the safety message. Toni was reminded of Mikayla's use of the

teachable moment and decided to extend the discussion by asking the children what they would do. The children began brainstorming ideas and predictably asked if they could implement them in the junior school. Toni agreed anticipating there would be no problems since the concept complemented the road safety visit, and learning would be beneficial for all concerned. Toni recognised the opportunity to explore student input within a less ambitious theme. The focus meeting provided Toni time to reflect on her teaching experiences during the second phase.

Focus Group Meeting Three

Toni discussed her experiences and frustrations while exploring her research question:

> *How could I include students more throughout the planning process, maintain quality teaching, and track learning for accountability purposes?*

Toni said she had included substantive amounts of student input in the initial planning phases which drove the direction of both the camp and classroom extension unit. Wherever possible she had attempted, albeit not always successfully, to follow through on student ideas. Toni felt despite her efforts a significant number of school imposed non-negotiables had resulted in her continuum placement remaining at 50% for contribution to decisions and planning process (Figure 11).

The learning journal was successful because it addressed accountability, and its flexible format could be added to or changed as the unit developed. Toni decided her students were not contributing consistently to all aspects of planning. During the final research phase she wanted to investigate:

How can I successfully complete a negotiated road safety unit plan which includes student input into learning, presentation, and assessment?

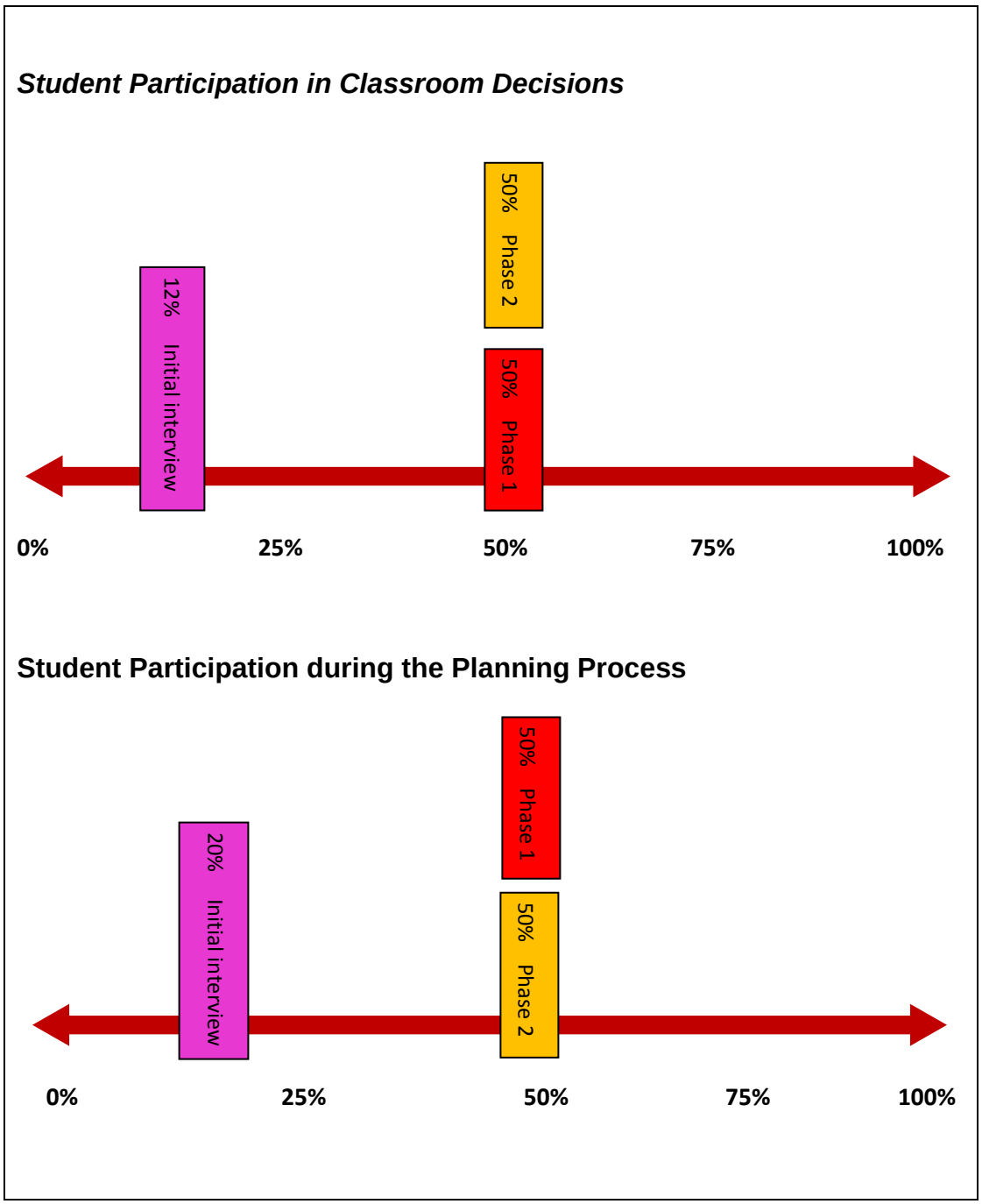

Figure 11: Toni's cumulative continuum placements at the completion of phase two

Phase Three Reporting

Reporting of phase three differs slightly from first two phases. The initial discussion documents classroom actions and reflections. Then final research questions are considered along with continuum placement. Next, data gleaned from the second semi-structured interview is combined with teacher participant comments made during the final focus group meeting.

Phase Three

Classroom Actions and Reflections

Room Six began the term by revisiting the road safety unit brainstormed at the end of term three. Ideas had included creating a rap, an imovie script, a dance/song with original lyrics, outdoor and indoor board games, plays/shows with scripts, and a big book. Toni discussed with her students how their ideas were end products and asked them to consider:

> *How do we get to this end product?* and *How do you think teachers plan?*

From their SMART lessons students knew teachers identified learning intensions, and success criteria. They also discussed the need to incorporate key competencies. Toni shared how she planned school determined topics. In groups, students highlighted pertinent key competencies, strands and achievement objectives. Toni was conscious of the need to describe the process in *"kid speak"* as curriculum vocabulary was challenging. The class decided the primary aim would be the same for everyone. *"The audience would learn how to stay safe on the road."* Because activities differed, students planned in relation to their specific idea. Teaching sequences were

broken down and the class began designing and making activities (Appendix M).

Following the units completion the children taught their lessons to several junior classes. Room Six reflected on their experience and considered whether the learning intention had been met. Where necessary improvements were made, simplifying language was a common adjustment along with organisational modifications. The original intention was to invite the road safety lady back and present the activities. However, the class was unsuccessful in their attempts to make contact. Room Six taught several more classes and were very pleased with the outcome. Junior school teachers reported how informative and enjoyable the teaching sessions had been for students.

An unexpected opportunity to share part of the unit occurred during Orange Day, an event organised to acknowledge student road patrollers' voluntary work. The boys in Toni's class were in attendance and were singing the road safety rap they had written. The lyrics were overheard, by the organiser who was impressed and asked for a copy of the recording the boys had made. This was subsequently shared with The Council Road Safety group who sought permission to incorporate the students' digital rendition into their Feet First Road Safety Programme to use as a teaching tool in schools throughout New Zealand (Appendix M).

Toni commented that as a result of the unit the class had learned more about road safety and learning.

> *They learned that anything and everything they do in their life, and learning, has a purpose. Either the purpose is for the teacher or for the student. This teaching experience showed them that if the purpose came specifically from the student then it was relevant. They found by teaching, they learnt as well as the people they were teaching….They said they learnt more about*

road safety because they wanted to do it… They gained a greater understanding about how teachers teach and why, and how planning fits into the big picture.

In the days that followed Toni noticed her students were discussing the oral and written language they were learning, and what curriculum areas they were covering during class. This she attributed to a greater understanding of the teaching process, and the curriculum itself. In addition,

Negotiations are happening all the time, [the students] keep suggesting ideas constantly. We are now rolling along like expert rally car drivers rather than jerky learner drivers.

As the end of the year was approaching Toni took the time to reflect with her class. The class wrote a "Plus, Minus, Interesting" (PMI) summary of their experiences which they recorded on their wall chart using "The Classroom I'd Like" for the title (Figure 12).

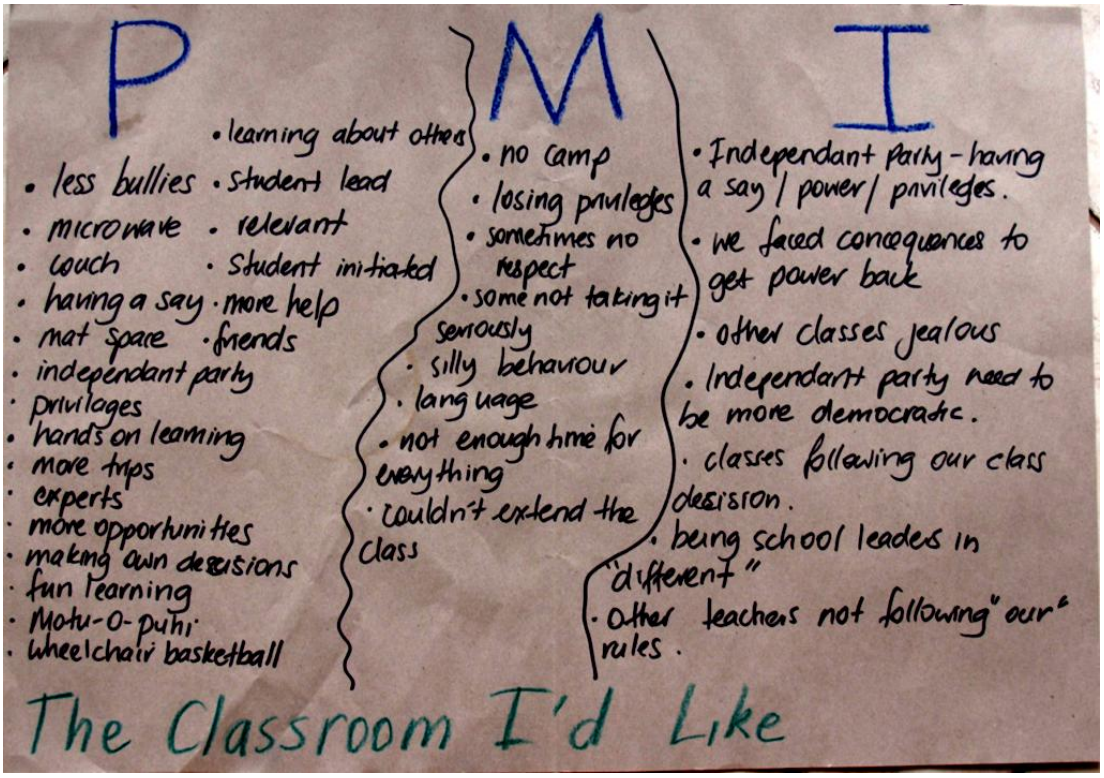

Figure 12: Classroom PMI of "The Classroom I'd Like".

Reflection on final research question and continuum placement.

Following the student PMI, Toni took time to reflect on her final research question.

> *How can I successfully complete a negotiated road safety unit plan, which includes student input into learning, presentation and assessment*?

Toni made reference to the co-constructed unit described above believing student input was high throughout the entire planning process. This, she believed, was because the unit was not contingent on factors beyond her control and students could be fully involved throughout the entire process.

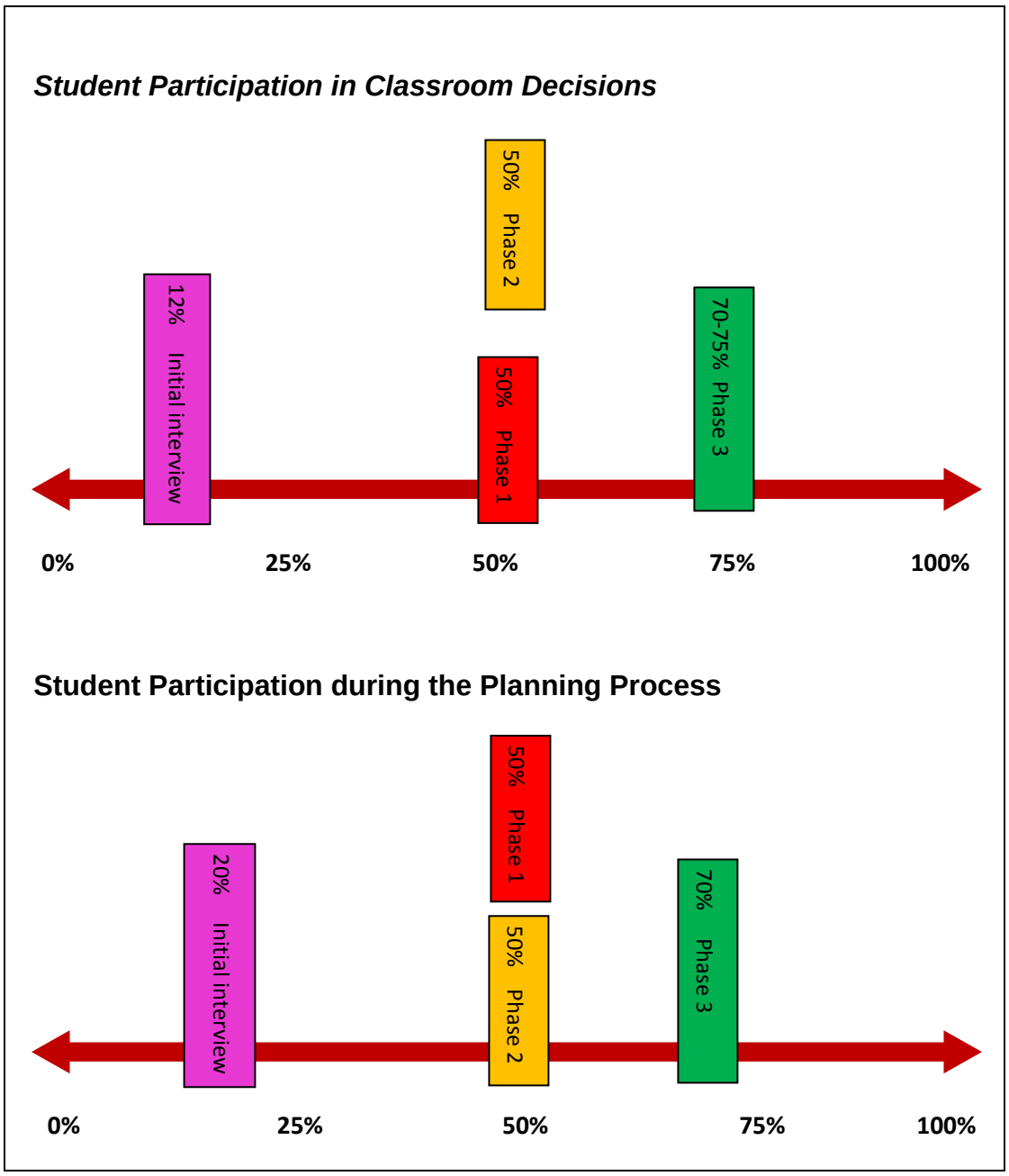

Figure 13: Toni's final continuum placement at the completion of phase three

At the previous focus meeting, Toni placed herself at 50% on the continuum for decision making and planning. Toni now positioned herself at 70-75% for decisions, and 70% for planning (Figure 13).

Justifying this placement by explaining how her classroom had changed, she stated:

> *They do it all. I'm just the referee now. It felt like a natural progression. They're actually taking the teachable moments and identifying them themselves. After the road safety unit had finished, other things within the context of the classroom changed.*

Toni explained how one of the children had asked a question about New Zealand and a discussion ensued with students recognising they lacked knowledge about their own country. When Toni asked, *"What could we do to learn more about our country?"* the children suggested they design a homework task. With the holidays approaching they decided to plan "The Great Kiwi Road Trip". A budget was decided and learning criteria co-constructed, requiring historical and geographical research. Students' used books, the computer, personal contacts and information centres. This project resulted in several families changing holiday plans in order to incorporate their child's place of study. Free tickets were sent to the class to visit various attractions throughout New Zealand.

While Toni taught she continually reflected on her teaching commenting that she kept a mental image of the continuum as a reflection tool. While working with the children, she felt the level of co-construction occurring went backwards and forwards depending on the context at the time.

> *It's a visual mental thing I have in my head, and I'm thinking now where are we at now. When I was sitting typing up the homework sheet for "The great kiwi family road trip" and when the kids were filling out their assessments on the road safety, I was thinking well this is way out there. But sometimes I have to pull them back in because we have to go and do staunch assemblies or follow rules with certain things.*

A final semi-structured interview and focus meeting brought the project to an end for Toni and the other participants (refer appendix B for interview

guide sheet). Interview and focus meeting discussions were framed around the following topics: teaching philosophy and practice, moments of enlightenment, challenges of student-centred integration, benefits of student-centred integration, and the future.

Semi-structured Interview and focus group meeting

Teaching philosophy and practice.

Toni believed her philosophy and practice had changed '*phenomenally*'. The way she was teaching now was '*true to herself*', and the gap between her philosophy and practice had closed. She attributed this growth to her involvement in the project. Toni said she had *"dabbled in curriculum integration before but lacked confidence".* Working with other teachers who were taking risks gave her '*confidence to step out'.* She considered this support to be vital, when no one within her own school was exploring student-centred curriculum integration. There were times she felt she was on her own little island.

> *I think because I was doing it on my own before, and because I was a little bit unsure being a new teacher, the support behind me gave me that confidence to be able to step out, and my kids were fabulous because they went with me, and I think their confidence grew, and my confidence grew through the whole year, to enable us to push it out further and further. Accountability was an initial concern, but we were able to easily justify everything we did.*

Toni said her planning practice had changed significantly with students planning alongside her from beginning to end. Students understood more about accountability, and that they were responsible for their learning.

A moment of enlightenment.

Toni's 'moment of enlightenment', or turning point was:

> *Connor Brown standing up and saying he wants to make the classroom bigger, and I said no. I went home that night and couldn't sleep, I saw his little face and kept thinking, why did you say that to him, and I came back the next day and apologised to the class. I promised them that if I ever said that word again they were to point it out and I would use other phrases to encourage their creativity, not squash it.*

From this moment on Toni listened attentively, and wherever feasible, acted on students' ideas. She noticed students began to share ideas freely, knowing they would be valued and taken seriously.

The challenges of student-centred curriculum integration.

Toni experienced a number of challenges. Firstly, she felt there was negativity from some teachers who perceived her to be doing things differently. Toni wondered if these teachers were concerned that they may be expected to follow suit. A further challenge brought about by the project, was that Toni was exploring fresh approaches to curriculum delivery; consequently, she believed she was being monitored closely, and was conscious of the need to make sure the learning was carefully documented. Having to say "*no*" to students, she found to be personally challenging. In hindsight she learned it was important to go straight to the principal to gain support earlier in the process before student initiatives snowballed into units that could not be fully pursued. Toni commented that it had been emotionally tiring due to challenges and the busy classroom environment.

The benefits of student-centred curriculum integration.

Toni believed teaching democratically had gelled together an eclectic class of children. Toni said it had given voice to students who would normally not be heard, as they willingly contributed ideas and unanticipated leaders emerged. Everyone was considered an equal, and students were not afraid to take risks. An equitable classroom enabled students' talents and strengths to emerge that may not normally have arisen. Toni believed sharing power had resulted in students having a greater self-esteem, heightened levels of achievement, better social interactions, and the ability to question and not take things for granted. Learning had been enhanced because students were involved in creating their own classroom environment.

Toni discussed how children had taken negative responses quite hard when their ideas had been rejected after they had worked hard. The children learned you cannot always have your own way, and that compromise is part of life. However, they recognised the large number of successes that had been achieved. When summarising the year students said they considered their teacher to be a friend who had taught them they are capable of making their own decisions and overall they were more attuned to their learning. Reticent students learned to stand up and speak out when they considered something was not right or was detrimental to their learning. Toni considered this to be a valuable skill to take to intermediate school. Parental reaction had been positive, with reports of heightened student confidence and greater understanding of learning. The children's enthusiasm was felt at home, and more parents had become involved in school trips.

The future.

After a significant amount of soul searching Toni decided it was time to look for a position in another school. While she appreciated the solid curriculum grounding she had gained while teaching at Turner Primary, she

sought a school that was a closer philosophical match to her current practice. Toni maintained she could never return to curriculum delivery that didn't incorporate student input. Toni anticipated starting next year in the same way she had begun the project, by asking students about "The classroom I'd like". Displaying co-constructed planning on the classroom walls and planning with students was something Toni would continue.

Toni accepted a position at Mikayla's school, and was excited at the prospect of working in an environment where professional development on student-centred curriculum integration would be taking place. Toni wanted to meet with the research team beyond the project's completion, in order to continue to grow her practice. Reporting on this final semi-structured interview completes Toni's research journey; the next case study to be discussed is Mikayla Moore.

Case Study Two: Introducing Mikayla Moore

Mikayla, the second participant in this project, is a provisionally registered teacher employed at Mahy Primary School. Since beginning her teaching career just over a year ago Mikayla has taught year one students. Mikayla was eager to join the research team as she was interested in exploring student-centred curriculum integration with five and six-year-olds. This was an age level Mikayla believed was often overlooked in curriculum integration literature. This case study opens with the data taken from the first semi-structured interview (Interview guide sheet, Appendix B).

Phase One

Semi-structured Interview

Mikayla's teaching philosophy

Mikayla believed it was vitally important for teachers to build on the prior knowledge and experiences children brought from home. Personalised learning was central to her philosophy and she strived to have every child in her class feel valued. Mikayla sought to make a positive difference and wanted her students to view learning as valuable.

Mikayla considered it was the teacher's responsibility to guide and open minds by giving students the skills to question and learn. Rather than fill students' heads full of facts, she believed it was essential to teach children how to find information in order that they might gain the skills to solve problems independently. Mikayla believed it was important that teachers were knowledgeable; she spoke of her professional responsibility to deliver content knowledge in accordance with *The New Zealand Curriculum* (MoE, 2007). For

Mikayla, literacy was considered to be of primary importance when teaching five-year-old students.

Curriculum delivery.

A typical day in Mikayla's classroom would begin with oral language. She believed this was important as it provided an avenue for students to share any news or experiences. This was followed by numeracy and literacy. In the afternoons the school-wide topic was addressed using the inquiry method. Inquiries would begin with a preliminary motivation, designed to trigger students' questions and ideas for possible inclusion in a unit. Mikayla attempted to make learning meaningful by connecting with students' interests and providing hands-on activities. On occasions Mikayla wrote "Can Do" and "Must Do" lists to encourage her children to manage their learning. However, in general, she opted to run a fairly structured programme. Her justification was that she had some particularly challenging students who required structure and routine. Nevertheless, Mikayla was happy to divert from her planned timetable when she recognised a valuable teaching opportunity.

> *For example if a truck arrived in the school grounds we might just decide to go and have a look. Curriculum delivery ought to be meaningful, engaging, and exciting for the learners. You can't have a rigid mindset.*

Curriculum integration.

Mikayla described full integration as starting with an issue, finding out about it, and having children direct learning. It involved integrating all areas of the curriculum as children determine what they want to investigate. She considered the approach to be more child-centred and less teacher-directed.

Mikayla believed the implementation of curriculum integration would be beneficial for her students learning because they would be more engaged in the learning process.

> *They would have greater ownership and be motivated. They're going to feel that it's their idea, and you know what kids are like when they feel it's their idea, they grasp and run with it, and that's what I'm looking forward to. They would be learning through meaningful contexts rather than learning because they are told they have to.*

Mikayla considered that she would benefit professionally, as researching her practice would encourage her to take risks she would not ordinarily take.

> *Sometimes you feel a little bit scared of failure, but I want to be able to take risks, so I can show the kids that it's okay to take risks, and sometimes things don't work out the way they're supposed to be.*

Although Mikayla could not identify any disadvantages in adopting curriculum integration, she anticipated documenting planning and accountability would be challenging.

Mikayla said she had not implemented full curriculum integration into her practice. To her this meant adopting Beane's theory (1997), where students pursue issues of interest, planning with the teacher throughout the entire process. On occasions Mikayla had invited student input through brainstorming initial topic ideas, and encouraged students to ask questions. Children were sometimes involved in classroom decisions which may have included voting on a resolution, or deciding on different choices of activities. To date, Mikayla has taken responsibility for planning the classroom programme.

When asked *"How do you think your current practice matches your philosophy?"* Mikayla replied:

> *Probably not as well as I would like it to, I'm still at the stage of setting up a culture in my classroom, where children can work more independently. I mean they are only five, so that's a big ask …I want to investigate ways that I can work at this level, like I've seen curriculum integration in action in classrooms at higher levels.*

Mikayla's continuum placement.

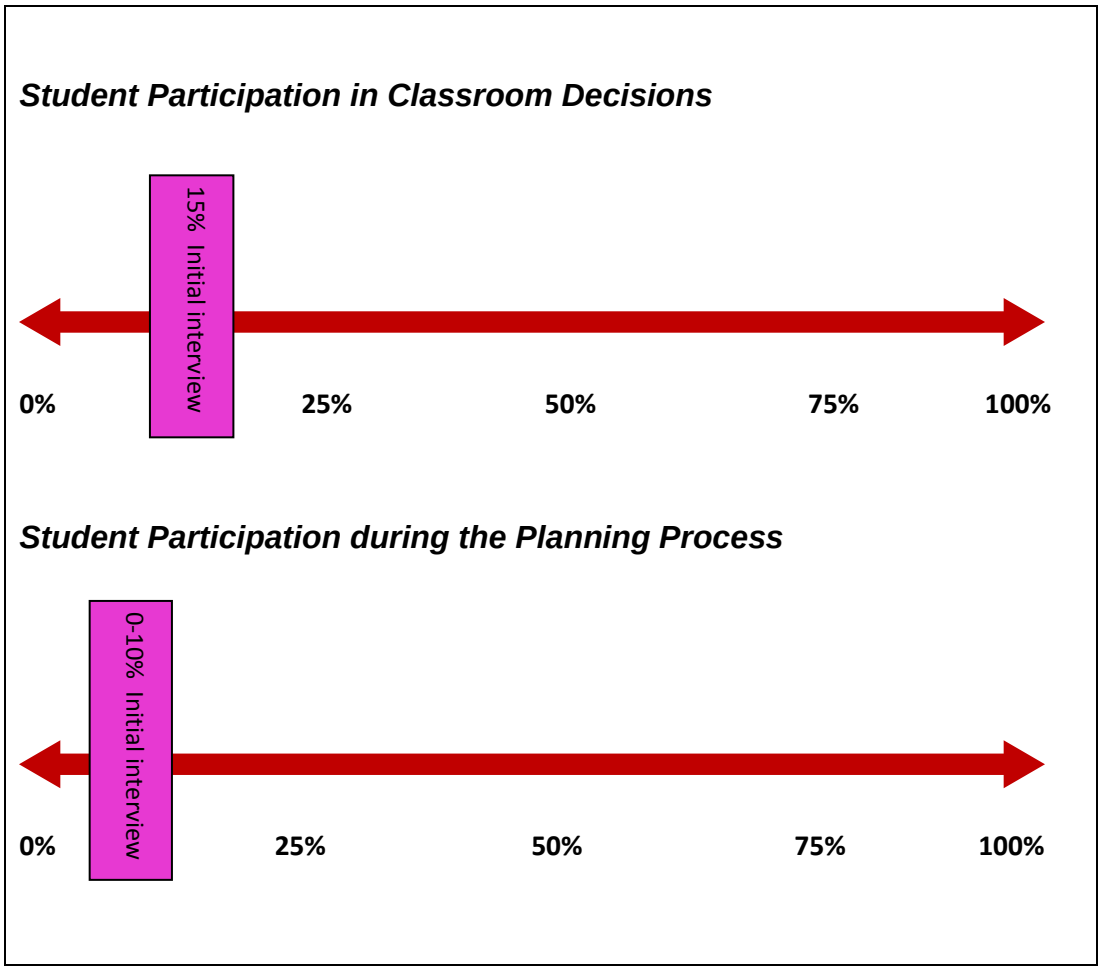

Figure 14: Mikayla's initial interview continuum placement

Mikayla wanted to implement curriculum integration practices in small steps. At the time of the interview she believed she involved students in approximately 15% of decisions, and planning involvement lay between 0 and 10% (Figure 14).

Focus Group Meeting One

During the inaugural focus group meeting Mikayla posed the following research questions:

How can I raise student thinking in my classroom?

How can I begin to have my children take more responsibility for managing their learning?

Mikayla felt she had a challenging cohort of children, in comparison to her previous years teaching, and was concerned curriculum integration would neither be possible or suitable. Hence, she considered it vitally important that time be taken to raise expectations, and encourage self-management skills.

Classroom Actions and Reflections

Mikayla decided she would encourage her children to assume more responsibility and ask questions. She made a conscious effort to genuinely consider student suggestions, pursue teachable moments and generate thinking.

The first thing Mikayla explored was giving children responsibility for calling the roll. Each student's name was written on a large laminated card, when students responded, this was placed in a box. Excited by the prospect of this new responsibility, a student who was usually consistently late, arrived early to practise reading the names which until this point he had been unable

to read. This new responsibility continued to be a favourite, resulting in all students being able to read each other's full names.

Mikayla tried to raise thinking by asking more questions, rather than issuing so many instructions, or providing answers. When children queried how to do certain things she would ask "What do you think you could do?" or "How could we find out?" Mikayla resisted the temptation to provide a quick answer, and think for the children. Rather than setting all expectations, Mikayla would ask her students to contribute their ideas. For example, while lining up, she asked how children thought they should move around the school and why? Mikayla said she had begun to realise how powerful small actions could be.

Mikayla's increased questioning resulted in the students themselves posing more questions. Mikayla placed a large question mark on the front of the board with "post its" for children to write down questions as they were raised. When time permitted, these were taken down and discussed as a class. However, in reality, Mikayla found this challenging to fit in, as questions varied significantly and required individual attention. Mikayla eventually solved this problem by getting their senior buddy class to help her students use appropriate search engines and websites as questions arose. As well as questioning, using teachable moments was also explored.

Mikayla pursued spontaneous learning opportunities, which she referred to as "teachable moments". A loud clap of thunder heralded the onset of a huge hail storm in the Bay of Plenty, which triggered significant discussion. As students rushed to the window Mikayla asked *"I wonder what's making that loud bang?"* The children split into groups and began hypothesising (refer brainstorm, Figure 15).

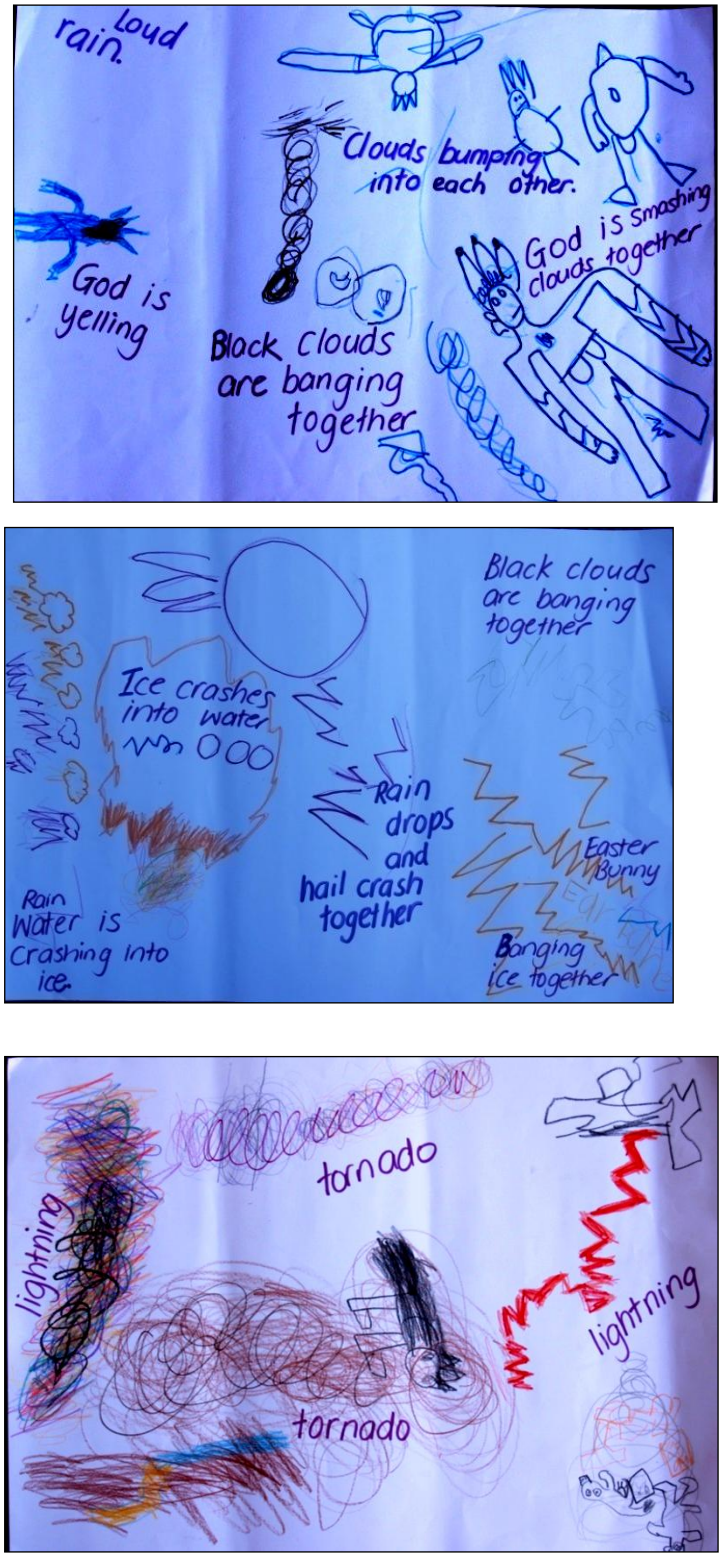

Figure 15: "I wonder what's making that loud bang?"

A discussion took place about God and Jehovah, with one little boy explaining to the others that the name of his God was Jehovah, this explanation appeared to satisfy. They tested the "*God yelling"* hypothesis by shouting together as loudly as possible to discover if they could yell as loudly as thunder. When they decided it wasn't possible, one child suggested God would have bigger lungs than all of them put together therefore it was still possible. Mikayla asked *"How could we find out, for sure, what caused the noise?"* The children's ideas were: *"Look in books, go on the internet, ask the weather man on the TV and ask our parents".* As it was nearing the end of the day children were encouraged to research after school. The next day, home discussions were shared, and the numerous books that were brought to school were consulted. Scientific explanations confirmed several students' thinking was on the right track. Discovering how thunder makes sounds led into the syndicate wide topic of electricity. Mikayla encouraged students to make the connection by steering the discussion, believing it would be unlikely the children would make the link themselves. While Mikayla had pursued teachable moments in the past, she considered she had stepped student thinking to another level by making a conscious effort to ask more questions, rather than provide solutions, in particular asking, "How could we find out?"

An additional teachable moment occurred when a child arrived with a frog he had found, and named Monty. This created extensive discussion, and a series of lessons developed. The children wanted to research frogs, read books, measure frogs and catch flies. All suggestions were pursued, and significant learning took place about various species, habitats, enemies and food. Life cycles were investigated with the children acquiring a number of tadpoles, so as to examine what Monty looked like before he was a frog. The eventual death of Monty created an opportunity to consider what may have caused his demise. Monty was handed around ceremoniously on a tissue and closely examined by all the children who said their goodbyes. Initially, it was decided he should be buried at school. However, his finder was adamant he

should take him home in order that he be buried and given a nice funeral. The following day Mikayla asked where Monty had been buried and the child responded with “Oh, I didn’t… he’s still in the car”.

Further teachable moments arose as a result of a newspaper cutting which was brought to school. Often issues based, Mikayla found these were a useful forum for sharing opinions, and considering others’ perspectives. An article concerning a tiger shot while mauling his keeper provided valuable debate. Mikayla was hesitant to pursue such a controversial topic with five year olds, but nevertheless followed their apparent interest by asking “Do you think they should have shot the tiger?” Mikayla opted to use a rolling debate strategy, a technique discussed at the focus group meeting. Mikayla drew a line on the floor, students stood on one side if they agreed and the other if they disagreed. Opinions were offered from each side, students could jump the line at any stage if they changed their opinions after listening to others. Mikayla explained that they had to justify their opinions. A sample of this discussion included *“He should have died because he killed one keeper, and he might kill the others next”,* another child suggested *“No, he should not have died because he should live in the wild anyway”.* The child offering the first statement jumped the line to change his opinion as a result of considering his peers’ perspectives.

Another newspaper article concerned staff losing jobs at a local swimming pool because of the reduction in numbers of people swimming. The children generated a range of solutions for saving staff in a shared letter (Table 3). Unfortunately, the letter failed to generate a reply.

Table 3: How to get more people to have a swim at the pool

How to get more people to have a swim at the pool
"Put some more toys in the pool."
"Put the steps in the water so my friend can swim."
"To make your pool better you could put another hydro-slide in so there would be two."
"I want your pool to be deeper. It would be fun for me."
"I think you should put a hot pool and a cold pool and then people would come to your pool."
"They could make it free? Because it will make more people come."
"You could make another water slide and you don't have to make people pay."
"You should sell nice pies in your shop."
"I think we should put another water slide."
"You should make another pool with bubbles."
"I think you should get it deeper for us and put in a diving board."
"It needs to be bigger and deeper and the water needs to be high."
"I think you should play some games."

During the term Mikayla noted an improvement in oral language skills, with children listening attentively to each other's contributions, and asking more questions. One of the biggest changes had been heightened levels of contribution, particularly from children who had been reticent to contribute in the past. Management staff appraising Mikayla's teaching commented on her skilful questioning which she suggested would not have been evident prior to the project.

> *I realise I was not providing enough opportunity for the children to ask questions. I was doing all the talking. I thought I was expecting the children to think more in my class last year but I*

realise it wasn't the case. The children are asking more questions because I am listening to their ideas. I am preventing myself from thinking for them and watching more for teachable opportunities. I have changed my way of thinking from quickly dismissing children's suggestions to thinking 'Oh, how could we do that?

Mikayla discovered that pursuing teachable moments required her to be more flexible about timetabling. The learning merits of these spontaneous experiences, she believed, had justified any interruptions made to her programme. Instead of withdrawing teaching groups in set blocks, she withdrew groups at any stage of the day. This approach was less stressful and resulted in her getting through more groups. When the teachable moment was all consuming Mikayla believed she was still able to address curriculum requirements, although these took on a different form. For example, the reading of thunder hypothesis charts and science books was contextualised reading. Further reflection on these experiences took place during focus group two.

Focus Group Meeting Two

Mikayla had set the research questions:

How can I raise student thinking in my classroom?

How can I begin to have my children take more responsibility for managing their learning?

Mikayla believed she had raised student thinking by taking time to genuinely listen and ask questions rather than provide answers. She was encouraging students to think, ask more questions and manage their learning. Students were making decisions about timetabling and justifying

choices. More extensive use of, Must Do, and Can Do lists, had also been incorporated to encourage decision- making and self-management skills. Mikayla believed a conscious focus on student thinking resulted in improved questioning and raised expectations. Although progress was slow, significant improvements were noted in children's oral language and questioning skills.

At the beginning of the project Mikayla placed herself at approximately 15% on the decision-making continuum; this was moved to 25%. Mikayla's 0-10% planning placement was raised to 20% as a result of spontaneous learning opportunities being pursued (Figure 16).

Mikayla wanted to build on her current student inclusion level. The next question set was:

> *How can I involve my children in more aspects of the planning process, and how will I document this in a way that is meaningful to children and also offer accountability?*

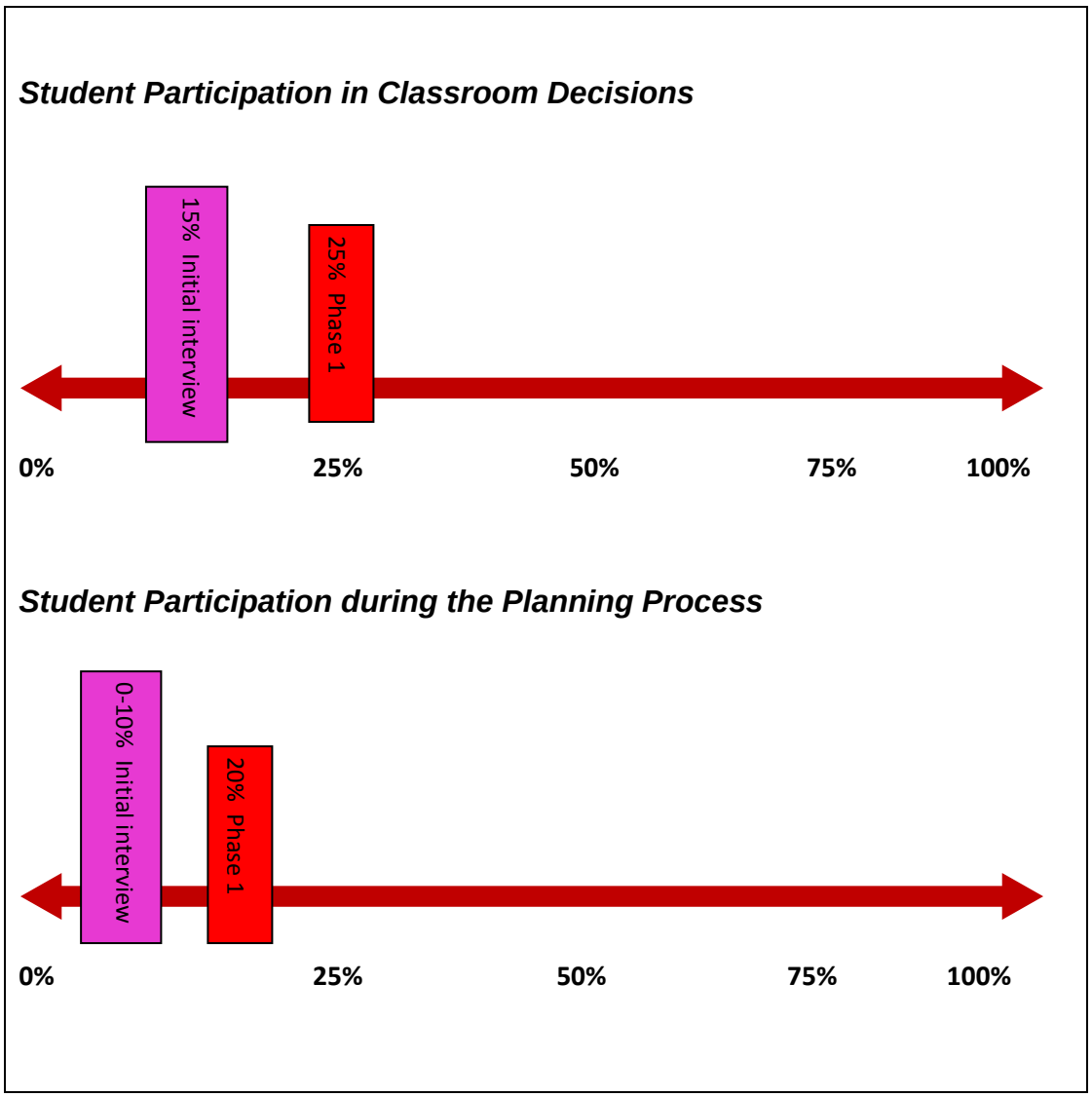

Figure 16: Mikayla's cumulative continuum placements at the completion of phase one

Phase Two

Classroom Actions and Reflections

Following the focus group meeting Mikayla found she was pursuing another teachable moment. A newspaper clipping had been brought to school in celebration of the anniversary of the first moon landing. Consequently, a

discussion ensued about what happened all those years ago. This was made all the more interesting, as one of the children had a birthday on the same day. The children's curiosity triggered a range of intriguing questions which were recorded and pasted on a large moon display the children made (Figure 17).

Figure 17: Moon questions display

Mikayla was keen to pursue this topic further, because of the high level of interest. However, a school-wide theme prevented her from finding adequate time to pursue this topic in-depth. Nevertheless, time was made for

researching questions, and students were encouraged to bring books from home. Books arrived, and valuable discussions took place. Mikayla felt disappointed she had to stop the unit short, as it had enormous learning potential.

Mikayla decided she would attempt to include students in planning the school-wide technology theme, commencing with an initial scenario. Mikayla held up a saturated, torn envelope with a letter inside from Postman Pat. He was asking for help, as he was having problems with mail getting wet and dogs ripping up letters. In order to establish students' prior knowledge they were asked what they knew about letters and mail. The children suggested they should make mail boxes to keep the mail dry and prevent dogs from getting at letters. In addition, they wanted to write letters and make envelopes to post into the boxes. Two boys decided a delivery truck needed to be made to deliver parcels that were too heavy for Postman Pat to carry. Another suggested they could invite a postie to visit. The children began designing and making letterboxes (Figure 18). Throughout discussions, Mikayla discovered the children generated many of the activities the syndicate had predetermined.

Figure 18: Letterbox construction photographs

During letter box construction I was conducting a naturalistic observation. The children discovered there were a number of technology challenges to be faced. Mikayla told me she was determined to resist the

temptation to solve children's problems. Instead, she was going to ask questions, she believed this would encourage students to generate their own solutions. The most common problem was how to make the mail box stay up when it had a tall pole to keep dogs away. Many students approached Mikayla to ask what they should do, to which she responded *"What do you think you could try?"* Most students solved this challenge by designing stands so the pole would not topple over. One student informed me that she intended to stand there all day holding it up. This strategy was reconsidered as morning tea approached. Mikayla was surprised which children struggled with this task as it was not necessarily the children she expected. The letterbox construction project took far longer than anticipated. Consequently, Mikayla was unable to pursue all student-initiated ideas. Nevertheless, the class did find time to go for a walk and look at letterbox designs. This experience triggered a discussion on odd and even numbers on the mailboxes. Hence, a skip counting lesson took place on their return to class. As requested the children also wrote letters and designed envelopes to post to each other and the postie visited, providing solutions to unanswered questions. The unit concluded with a school-wide technology expo which allowed children to display their letterboxes. A visit to the mail centre was planned for the following term. During the unit Mikayla gave students frequent opportunities to set the timetable, because she considered taking responsibility for organising themselves was an important skill.

The timeframe for completing this unit was extended significantly when another teachable moment arrived in the form of a large truck containing a little yellow digger. The children were in the middle of constructing letterboxes when their attention was distracted by the arrival of the truck. Mikayla decided to drop everything and take her class down to the field. The children were totally captivated by this event. Other classes came and went while Mikayla's children remained transfixed. Mikayla posed questions to encourage thinking and the class were talking excitedly and asking questions. Mikayla asked:

How will they get the digger off the truck? How deep do you think the hole is? How will they make the hole bigger? How will they get the heavy pipe into the hole?

Noticing the high level of interest the digger driver came over to talk to the children. He explained, that they were unblocking the soak hole because it was blocked, he talked about where the water came from, why the soak holes were needed, and what porous meant. Mikayla asked if the children could get closer to the hole so they could see how deep it was. OSH regulations prohibited this possibility but Wiremu, one of Mikayla's children solved this problem by suggesting:

Hey, we could get him to take a photo down there so we can see how deep it is.

A number of photos were taken on behalf of the children. Mikayla asked her class why they thought the dirt was changing colours as he dug deeper. Sarah thought it was because he was getting near the bottom of the earth *"If he digs any more he'll be in space!"* Mikayla commented that she probably should have pursued this further, but didn't. The home time bell rang, but the children were reluctant to move away. The following day the class was keen to discuss the digger experience further. Mikayla had anticipated discussions would continue, and had printed off the photographs. The children talked about the word porous. They brainstormed porous objects and poured water over various items to test if they were porous. Mikayla told the children she had learned something that day because she did not know how soak holes worked. The children were surprised, commenting *"It's neat that we learnt something together"*. A further investigation occurred when discussing the depth of the hole, which was four metres; the children were not sure how big that was. Sam suggested they lie down on the concrete and see how deep four metres and measure using metre rulers. Mikayla only had three rulers so the children had to figure out how to solve this problem. One

child suddenly announced she had discovered metre rulers were all the same size. Thus, it was decided they should move first ruler and place it at the end. The children determined the hole was approximately four children high. Mikayla considered this event to be a powerful learning experience, as the children used this strategy later for measuring other long lengths. The photographs were used for story writing and Mikayla read *The little yellow digger* (Gilderdale, 1993) to her students (Figure 19).

Figure 19: The digger experience

Focus Group Meeting Three

While discussing experiences, Mikayla mentioned how much she loved teaching at her school, because she was given the freedom to experiment, and when she shared experiences, staff displayed a genuine interest. Her school environment gave her confidence to further her explorations and take risks.

Mikayla's research question had been

> *How can I involve my children in more aspects of the planning process, and how will I document this in a way that is meaningful to children and also offers accountability?*

Mikayla believed she had involved students in a significant portion of learning and planning as a result of pursuing teachable moments. In addition, she deliberately planned student inclusion at the beginning of the technology unit and incorporated most ideas into her planning.

Documentation of the planning in a way that was meaningful for students was completed in several ways. Firstly, children's contributions to the letterbox unit were recorded as a brainstorm, which was created with the children when initial ideas were discussed. Mikayla then attached photocopies of the curriculum in the same way that Toni had and highlighted curriculum coverage. The digger experience involved retrospective planning. Mikayla took photos of what happened, to enable children to see the learning journey, and subsequently made these into a book. As with the letterbox unit, achievement objectives were attached and highlighted. As a consequence of the comments above, Mikayla moved her continuum placement from 25% for decision making to approximately 50%, and 20% student contribution to planning to 60% (Figure 20).

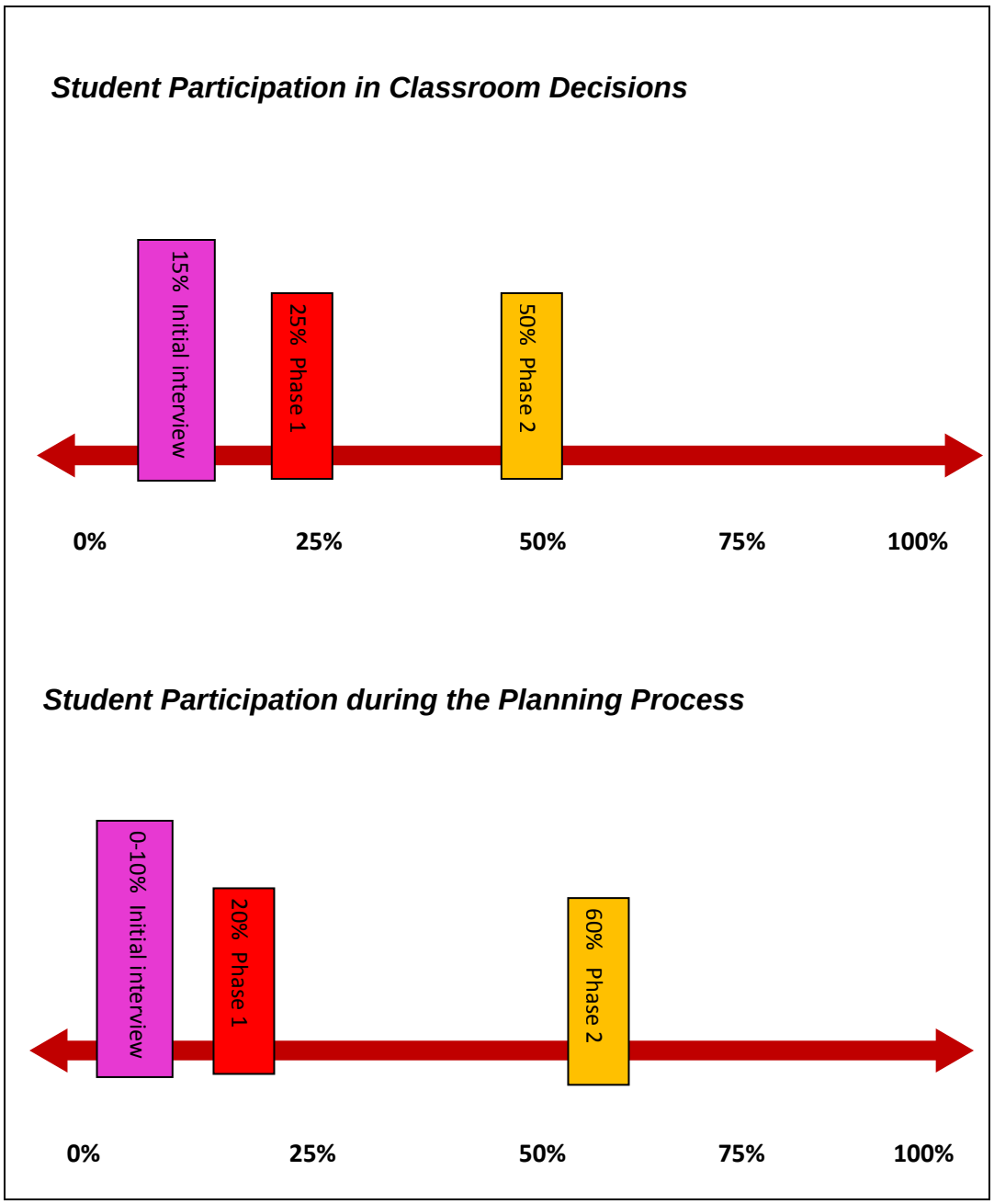

Figure 20: Mikayla's cumulative continuum placements at the end of phase two

She wished to extend this further researching:

> *How can I involve my students further in planning, beyond small parts to include them fully, throughout all aspects of the planning process?*

Phase Three

Classroom Actions and Reflections

Mikayla began her initial unit with a co-constructed brainstorm. Although the “Have a go” topic was school determined, she recognised substantive opportunity for student contribution. The theme was broad, allowing each class the freedom to pursue different areas of interest. Students were asked to consider how the school and its community might be changed and improved. Mikayla’s year-one children focussed on their immediate environment. More hands-on classroom activities were suggested including: a woodwork table, water play, sand pit and a rather ambitious proposition of a roller coaster. Many ideas were influenced by previous experiences the children enjoyed at kindergarten. Brainstorms were recorded, using a mixture of writing and pictures and as the unit progressed additional ideas were added along with anticipated learning. Mikayla was pleasantly surprised how well her students were able to justify the inclusion of many of the activities. They discussed measuring in litres, timing on the roller coaster and drawing plans for woodwork (unfortunately the final chart was inadvertently destroyed). Figure 21 shows the early stages of co-constructed planning.

Figure 21: Early brainstorming stage of student/teacher planning chart "Changes students would like in their school or community."

In addition to activities, students raised the rubbish issue, which was undoubtedly prompted by a collecting session that took place with their buddy class earlier in the week. Mikayla's students wanted to write letters to the principal requesting more bins, anticipating this would address the problem. Parents were asked if they were able to support various aspects of the project. Much to the children's delight a huge woodwork table arrived complete with hammer, nails and wood.

The unit described above was the final unit for the year. Mikayla took time to reflect on phase three.

Reflection on final research question and continuum placement.

At the beginning of phase three Mikayla wanted to research:

How can I involve my children further in planning beyond small parts, to include them fully, throughout all aspects of the planning process?

While students had contributed to the initial planning brainstorm Mikayla was frustrated that she had not included students more throughout the planning process. Mikayla was keen to replicate what Toni had done in her year six class with students helping identify learning from within the curriculum. However, this proved to be challenging for five-year-old children. Mikayla had wanted to get down to the *"nitty gritty"* of the curriculum; she felt she was having to spoon feed information to students. Mikayla acknowledged her expectations in this regard had perhaps been too high, nevertheless, she believed by showing the children the curriculum, she had made them more aware of the purpose of learning. Mikayla hoped students would have a greater understanding of what was being highlighted on the photocopied achievement objectives charts. Next year, student inclusion in planning was an area she wanted to develop further. Mikayla said that in the past she would have steered and prompted so students would come up with particular ideas. In contrast, her attention was focussed on:

> *"Drawing out their ideas"* asking *"Why do you think that?"* And *"How would you do that?"*
>
> *I probably wouldn't have done that in the past, so yeah, it's way more exciting when its driven by children, because they're more excited about it.*

Mikayla commented on the hectic pace of the final term; she had wanted to pursue more student-initiated ideas but had been unable to do so with so many extra activities taking place. Mikayla tried wherever possible to make links back to the theme, but it had been difficult to maintain cohesion.

Mikayla considered herself to have moved along the decision-making continuum from 50% to 60%. In relation to planning, the end of the term had seen a lot of non-negotiables having to be included. Nevertheless, she moved the last continuum placement from 60% to 70% as she was "*mostly planning*

with students" Mikayla considered the continuum to be a valuable tool for personal reflection (Figure 22).

Additional reflection time was taken during the final interview and focus meeting.

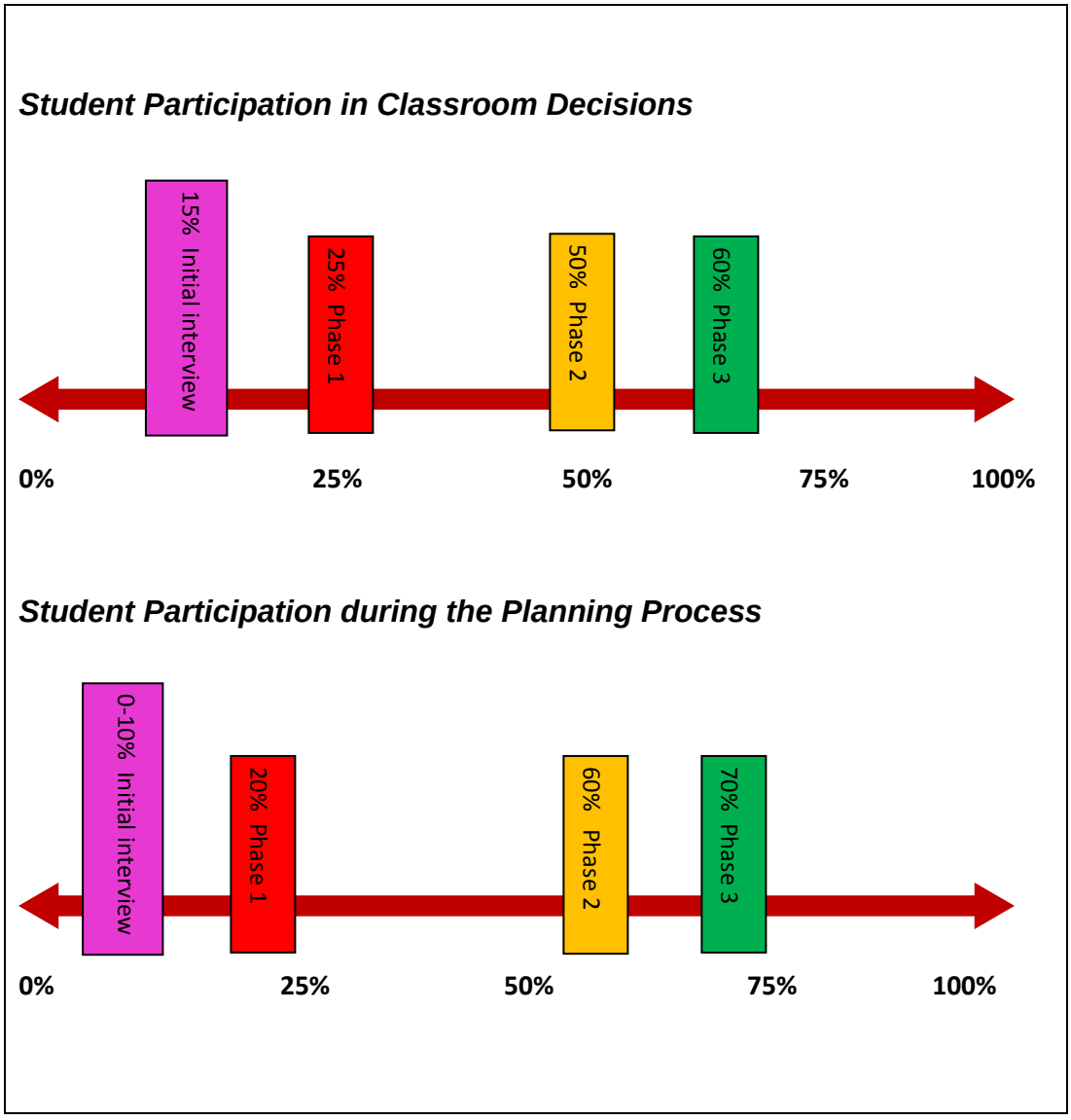

Figure 22: Mikayla's final cumulative continuum placements at the completion of phase three

Semi-structured Interview and focus group meeting

Conversation began with a discussion on teaching philosophy and practice.

Teaching philosophy and practice.

Mikayla opened the discussion by saying that as soon as she took the curriculum integration paper, she thought, *"yeah, that's me"*. It was something she was interested in pursuing when she began her teaching. Now, it had shifted from an area of interest, to one of passion.

> *It's just that it's the only way. It sounds as though we're brainwashed doesn't it, but it's not like that at all. It's just; I have definitely changed from before we started the project. My questioning has changed. …I never accept an answer, I'm always questioning, 'Why do you think that?" … listening to what their perception is first. So that has been a huge shift, as far as my philosophy goes. I've always believed that it should be student-centred, but I suppose it's just, rather than my philosophy having changed it has probably just become stronger, confirmed.*

Mikayla believed student-centred curriculum integration was fun and engaging. Children reticent to contribute in the past, were eager to participate when the context was motivating and relevant. Following the teachable moment was something Mikayla had always believed was important. However, the way she approached these situations had changed, rather than fill the children full of information she asked numerous questions, which encouraged students to think. Mikayla believed, researching her practice had resulted in a match between her philosophy and practice. Mikayla said she was embarrassed by comments she made in the first interview. In particular,

how difficult it would be to use this approach with her challenging students. She now believed it was exactly what they needed:

> *It's been quite an eye opener for me to see that being able to get them to have a say, is what they want. They're not the sort of kids that wanted to be told 'Right sit down, be quiet you're going to learn this'. They have loved this style of teaching, it's what they wanted.*

Moments of enlightenment.

Mikayla said she could not recall any specific moments but she "*felt chuffed"* her practice was generating interest from others, and giving her confidence to keep going. Many colleagues were displaying an interest, taking on board ideas and exploring questioning. Similarly, when sharing at a beginning teacher meeting, other provisionally registered teachers were astonished at what she was doing with five-year-olds, and were keen to incorporate Mikayla's ideas into their practice. Mikayla said it was the little moments that had been turning points, with questioning a significant area of growth. In the past she had not asked as many questions, and was quick to provide answers, or a "*big clue".* Mikayla moved away from wanting students to *"generate the answer that's in my head".* Instead she listened and asked students to justify ideas.

The challenges of student-centred curriculum integration.

Mikayla did not believe she had faced many challenges.

> *No, not challenging I have just loved it, I've loved every minute of it. I feel I have grown as a person as well as a teacher, just by opening my eyes to the way that these kids learn and what they've got. I'm just blown away by my five and six year olds, people underestimate them.*

Mikayla mentioned that it was not so much a challenge but more a feeling of insecurity, worrying if she was going about things in the right way. The research group itself was highly supportive, as they were likeminded, and would celebrate small successes as major steps. Getting assurance that she was going well was important for Mikayla's confidence as a young teacher. In the first interview, Mikayla anticipated accountability would be an area of challenge. Conscious of this, she shared her, "planning *with* students" with the school's management, who were reported to be very happy with the learning taking place and the documentation process.

The benefits of student-centred curriculum integration.

Mikayla said the key benefit for her students, was that learning had become relevant. She believed learning through real life situations is "*powerful*" learning. Mikayla got some "*looks*" from other teachers when the digger came, and she had spent so long outside with her class. However, teachers looking on did not see the huge amount of learning that took place as a result of the experience.

> *People think it's fluffy learning, lots of people have that opinion, but probably the people that have that opinion haven't tried it….I think it's great to put your hand up and get in there and do it, and then make a judgement. Because it's not for everybody, some people don't like to release the control.*

Mikayla said she felt privileged she had entered education more recently, considering the approach beneficial for 21st century learners because it involved student inquiry and the incorporation of ICT. She considered students finding things out for themselves, without being spoon fed, an essential skill.

Effects of research project.

Mikayla discussed how her practice had been noticed by other teachers and school management, who had showed a genuine interest throughout the project. Consequently, I was invited into the school during phase two, to support teachers interested in student-centred curriculum integration. This group presented at a staff meeting, and Mikayla and others, shared what they had been exploring in their classrooms. The staff participated in a continuum sequence activity, which consisted of small democratic classroom strategies leading to more sophisticated acts of student inclusion. Links were made to theorists, and excellent professional dialogue was reported to have taken place. Mikayla encouraged staff to begin with small steps.

> *Start with small steps because it's like anything that you try that is new, if it's too big you feel overwhelmed and you might think that it can't work.*

The future.

Mikayla will be team teaching next year and views this as a wonderful opportunity to share with another likeminded practitioner who is interested in beginning student-centred integration. Mikayla reports that latterly, her colleague's class has elected to join hers when she has dashed out to observe the recent construction of a new classroom. Mikayla wants to extend her understanding of planning *with* students. Moreover, she was excited by the prospect of Toni joining the staff in the New Year, allowing her to share ideas and inquire further into her practice. This concludes reporting on the second case study. Sasha Smith is the final case study.

Case Study Three: Introducing Sasha Smith

Sasha Smith is in her second full year of teaching. She has a year four class consisting of 25 eight and nine year old students. Following the completion of her teaching degree, Sasha elected to relieve for a year. A significant proportion of this time was spent at Sultan Primary, an independent school of special character situated within a fairly traditional educational community. The following year, Sasha was appointed to a full-time position at Sultan where she has remained.

Phase One

Semi-Structured Interview

Sasha's teaching philosophy.

Sasha considered it was important for students to learn through real-life experiences. For her, linking learning to what was happening in the world made it real. Learning in this way, she anticipated, would enhance significance and understanding. *'Hooking learners in'* by capturing their interest was what Sasha considered important. Teaching children things because it was expected was not always relevant. Sasha raised the importance of holding high expectations, acknowledging that this was linked to personal standards she set herself. Sasha recognised that while they were largely a good thing, on occasions she had needed to modify expectations.

Sasha believed that her observations of curriculum integration in classrooms, while at university, had been instrumental in shaping her teaching philosophy. During observations children continually approached the teacher, excited by new discoveries they had made on their elected topic. Children were taking

issues and running with them. Sasha commented: *"You can't just come into a class and get that, you've got to work towards that".* The teacher's role, as Sasha saw it, was to establish strong personal relationships, facilitate learning and provide guidance. This should be coupled with a learning environment filled with laughter, risk taking, personalised learning, and opportunities to work as a team.

When discussing curriculum responsibilities, Sasha explained that these were largely dependent on what the school determined. In her situation, teachers were given curriculum coverage guidelines, learning indicators and a time allocation for each learning area.

Sasha's curriculum delivery.

Sasha outlined the school-wide requirements that needed to be addressed with literacy considered a central focus. There was specific genre requirements in writing, and in reading, inference had been identified as an area of need. Sasha intended to incorporate the school-wide science topic throughout her reading programme, but the first term had been so busy and the theme had slipped by. The syndicate planned together, beginning with the predetermined school-wide achievement objectives. Sasha involved her students in the setting of assessment criteria and WALT's (we are learning to), with Sasha deciding how the criteria would be met. Sasha felt she was teaching a lot of "curriculum stuff".

> *It's the 'just in case' you need this information, here it is. Not the 'just in time' because you need this information to understand this, and this. So it's the 'just in case' learning instead of 'just in time' learning.*

Sasha felt her style of teaching was not sitting comfortably with her philosophy, but inexperience was inhibiting her from standing up

for what she believed and saying: *"Hey, this is not really what I want to do".* However, Sasha considered mastering the basics of running reading and maths groups was a prerequisite before you could branch off. With more experience she anticipated she would develop greater levels of confidence to deliver curriculum that aligned with her philosophy.

Curriculum integration.

When Sasha described curriculum integration she used the phrases: *"A child's sense of learning…where students are discovering"*. Meaningful learning opportunities are offered and children pursue what they are interested in. They consider how, and where, they will find solutions, and what they will do with their learning. Sasha said ideally the process ended with a social action and that planning would follow the children's ideas.

Sasha discussed her initial exploratory experiences of integrating curriculum which occurred last year during the school-wide theme on China. Sasha began the process, by inviting the students to ask questions. However, it didn't progress as well as Sasha anticipated; she suspected this was because the children were unfamiliar with the learning process, and accustomed to the teacher telling them what to do. When questions were eventually generated she felt the unit "*got too big, it got far too big for me*".

Sasha believed curriculum integration was empowering, with learners able to ask questions about the world around them. Although Sasha believed curriculum integration would be beneficial throughout the whole school, she foresaw a significant number of challenges. As a second-year teacher she was concerned it was too early to be "*straying from the basics*". When students pursue different areas of enquiry she worried it would be too complex to keep track of children's learning and content coverage: "*There are*

some things I'm worried about kids missing out on". Sasha was highly conscious of accountability pressures from parents, management and board, and was concerned about community reaction to something new. Time pressures were additional areas of concern, as it was a constant struggle to fit everything in, particularly with an added religious education curriculum. Sasha anticipated she would begin in small steps, so she and the children made a seamless transition. Gradual implementation would enable her to keep things manageable. Feeling self confident enough to have students involved throughout the entire planning process was another area of challenge.

Continuum placement.

When determining where Sasha would place herself on the planning continuum, she considered herself to lie in the 25%-30% range. Sasha said she would like to see student contribution raised to 75%. She intimated that school requirements might challenge her ability to include students as much as she desired. Sasha believed she involved students in approximately 18% of classroom decisions and placed herself on the continuum accordingly (Figure 23).

The initial focus meeting involved Sasha determining her first research question.

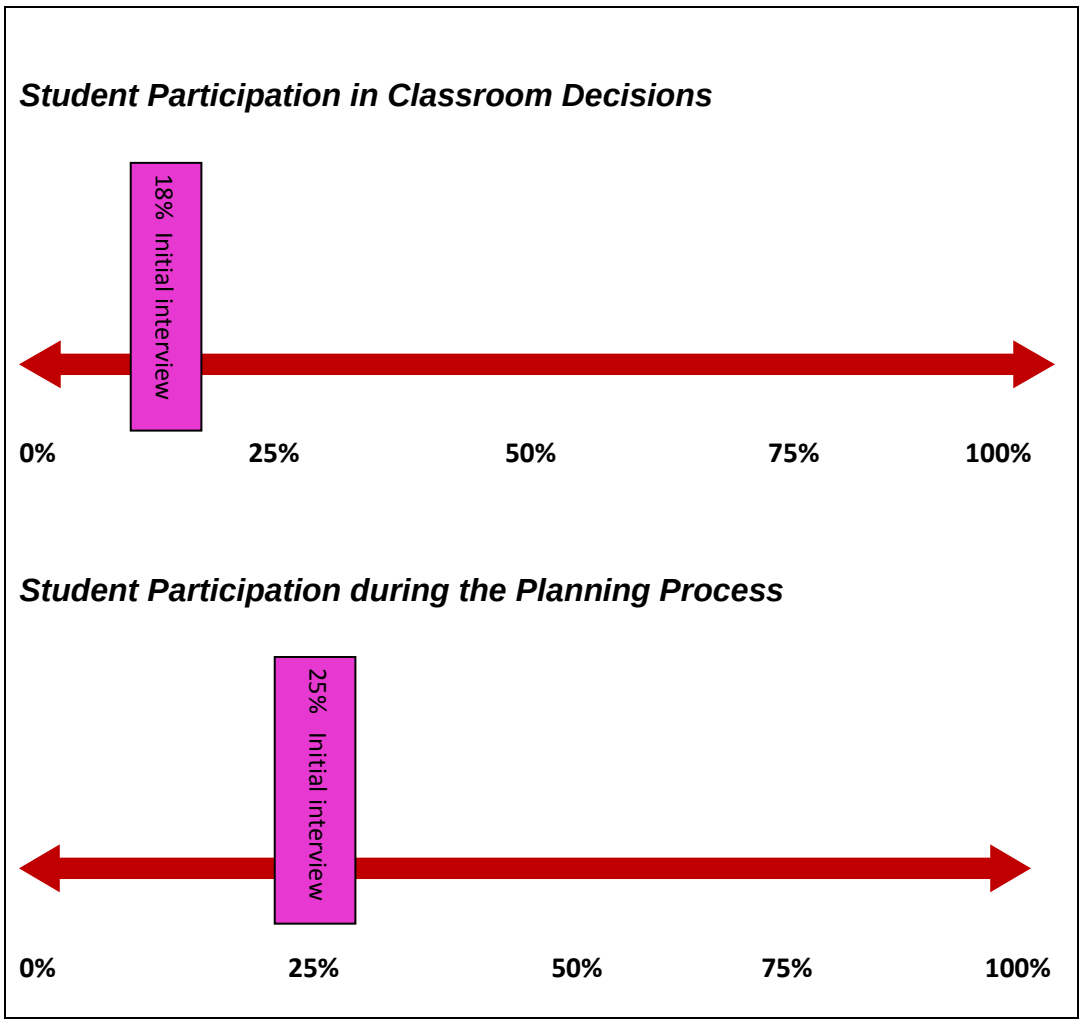

Figure 23: Sasha's initial interview continuum placement

Focus Group Meeting One

Following group discussions (Appendix A) Sasha posed the following research questions:

> *How can I offer choices in the children's programme, so they have a sense of freedom and develop self-management skills?*
>
> and
>
> *How can I raise student voice?*

Sasha decided to begin trialling minor modifications to the current programme, to insure continuity was maintained while raising students' self-management skills.

Classroom Actions and Reflections

Sasha told her students what they would be exploring as part of the research project. She explained that it would involve them making more choices and decisions. Sasha reported student scepticism displayed through quizzical looks and body language. She suspected they were suspicious whether power-sharing was genuine. From this she determined she would need to keep continuity to build trust.

Initially, Sasha explored how to adapt her reading programme. She invited students to choose the order they completed teacher-determined activities, considering how to manage their time. Despite initial doubts, the children enjoyed selecting activities and quickly developed time management skills. Once the programme had been running for a few weeks, Sasha asked which activities they would like to drop, and what suggestions they had for the types of activities that might be included. Sasha explained that all the activities were "teacher choices" and that she wanted to include children's ideas. After three weeks students wanted some activities removed and more literacy games, puzzles and computer activities incorporated.

A further opportunity for student self-management and student voice arose through a classroom issue. Sasha was becoming frustrated that the homework in her class was seldom completed, and was about to draw up the consequences chart. Instead she stopped, wondering: "*Why am I doing this? This is an opportunity to put a democratic process through its paces".* Instead she asked the children what could be done about the problem.

The children brainstormed ideas in groups and created consequences which were written on a chart then pasted inside homework books (Table 4).

Sasha commented that:

> *Although it was a time consuming process it demonstrated that the children were quite capable of these kinds of discussions. However, I need to make discussions snappier without losing quality.*

Involving students in setting consequences proved effective, with fewer children forgetting to complete homework. Sasha also decided she needed to make a concerted effort to provide more variety and provided a point's incentive scheme.

Table 4: Consequences for forgetting homework chart

Consequences for Forgetting Homework
If student forgets homework book on the due day, the consequences are;
20 lines outside classroom at morning break.
I must remember to bring my homework book on the due day.
After eating lunch, take bucket and pick up rubbish in the school grounds.
Show a duty teacher, to get the okay to empty the bin and go to play.

Children's ability to find solutions to the homework issue encouraged Sasha to be more open with her students. Sasha shared her concern about the amount of unfinished work needing completion. The children reorganised the timetable, beginning the day with topic, which was not usually taught in the first block, other curriculum areas were incorporated throughout the rest of the day. Despite reorganisation, the children did not finish, on reflection they decided they had spent too much time on some things; and would need to take this into account tomorrow. The following day, students placed non-

negotiables first on the timetable, and consequently managed to complete all tasks. Sasha said she enjoyed sharing the pressure and the problem-solving process, and would continue to negotiate daily activities.

Setting the research question *"How can I raise student voice?"* had, in Sasha's opinion, made her more self conscious of everyday occurrences and the importance of genuinely listening and asking questions. This was evidenced by what she described as a *"revelation"* which occurred during a writing lesson. Sasha had just modelled how to write a quality piece of descriptive text using Shrek as the subject:

> *The children began moaning and groaning about having to write, so I stopped and asked: 'what's up', and my eyes were opened! They wanted to choose what to write about... this teacher wasn't listening. I felt awful, as I had been cheating them of some great writing experiences by directing them too much. So I set up the descriptive writing criteria and shared these with the students and told them to go for it. They selected their own contexts for their writing and they wrote and wrote. Their pens were smoking. Why hadn't I seen this? I was really cross with myself. The school "have to's" and all the accountability has narrowed my thinking. My students simply wanted more choice of writing context.*

Sasha wanted to begin including students in planning, but wished to keep things manageable, opting to narrow the school-wide topic "change" to "wheels". She intended to *"hook students in"* and raise initial discussion by using a cartoon (Figure 24).

The children raised a number of questions: *"Why did he make the wheel? How did they get it so round? How did he make the hole in the middle?*" It was at this point the next focus group meeting took place.

Figure 24: Wheels unit cartoon motivation (www.fritzcartoons.com)

Focus Group Meeting Two.

Sasha shared classroom experiences she had while researching:

> *How can I offer choices in the children's programme, so they have a sense of freedom and develop self-management skills?"* and *"How can I raise student voice?*

Sasha explained how her children had been sceptical that their contributions would be taken seriously. However, through her conduct and questioning she was trying to demonstrate to her students that she was listening and prepared to act.

> *When you see how successful the small things have been for the children it makes you more willing to take risks.*

Sasha was pleased with her reading programme, but wanted to extend children's contribution further by including more student-created activities. This was inhibited by the fact that her tutor teacher was offering numerous literacy suggestions, which she felt obliged to include. An additional challenge was finding time to include school-wide requirements, incorporate religious education, and provide opportunity for student inclusion in planning. Sasha set two research questions:

> *How can I involve the students more in the planning of the timetable while acknowledging non-negotiables?*
>
> *How can I involve the students more when planning the wheels unit?*

Sasha wanted to revisit the continuum completed during the first semi-structured interview electing to move her planning percentage back from 25% to 15%. She recognised student involvement had been limited to the creation of assessment rubrics, rather than contribution to planning. Sasha moved student contribution to decisions from 20 to 25% (Figure 25).

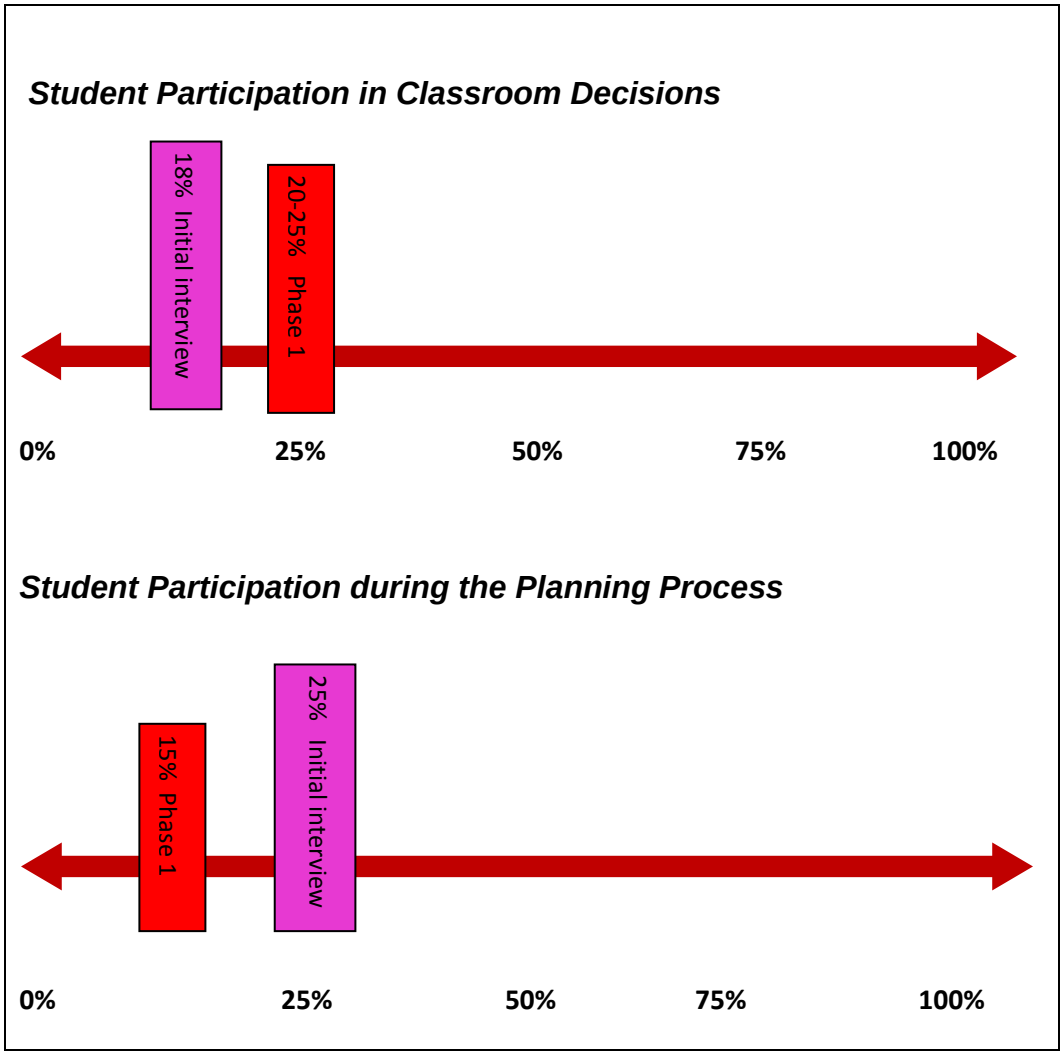

Figure 25: Sasha's cumulative continuum placements at the completion of phase one

Phase Two

Classroom Actions and Reflections

Following discussion and question posing about the wheel cartoon Sasha sourced a wide range of wheel photographs, anticipating they would create further interest. The children were told to move around the photographs in groups, writing down what they knew about each of the

wheels and what they would like to find out. Photographs included Ferris wheels, water wheels, spinning wheels, car tires and others. Sasha intended to use the information to determine the direction her unit would take.

Sasha was disappointed with the lack of enthusiasm this activity created and the limited contributions offered. Furthermore, children were having difficulty co-operating and listening to others. On reflection, Sasha decided the wheels topic was not working.

> *I was going off in a direction which I thought would make it easy for me but it didn't work for the kids. So now I am broadening the theme to – How inventions have changed peoples' lives over time.*

As an initial motivator Sasha discussed bicycles, an invention her students were familiar with. Students were asked to discuss what their bikes could and couldn't do. They were then asked to consider what kind of bicycle they would design to address the inadequacies raised. Suggestions included: A bicycle with a plasma television, bikes that worked on water and bikes with canopies to protect riders from the rain. To generate further discussion, each day Sasha showed her students a novel photograph of a wacky invention. The children raised questions, and asked to trial inventions, one being the toilet roll invention: an invention designed to provide a constant source of tissues for allergy sufferers (Figure 26).

Downloaded from: http://www.dogonews.com/2009/06/07/chindongu-the-art-ofun-useless-inventions

Figure 26: Toilet roll invention – "Hay Fever Hat"

Strengths and weaknesses were discovered including not being able to see or run, and the roll becoming soggy when it rained. As discussions progressed, Sasha handed responsibility for leading discussions over to the children. Initially she had prepared a list of questions to scaffold conversations, but found that these were no longer required as student conversations flowed naturally with children asking each other to clarify and justify contributions.

Students wanted to investigate an invention of interest, and present their findings in poster format (Appendix N). Students opted to structure the poster content in a similar way to a homework question sheet they had used earlier. Sasha tried to allow students more choice, by not predetermining which direction the unit would take.

> *I am letting go more and I am seeing where to blend in things I have to do. For example, I have to do reciprocal reading, but I will link that in with the inventions theme and things my students are interested in. I am now able to see, how I can put the school*

> *'have to's' into what we are already doing, rather than let the 'have to's' dominate my thinking. There is something else that has changed in my room. My children are really good at discussing things, both with me, and with each other. They are also asking more questions. I think it's happened because they can see that their voice is heard and I will action their ideas. All this has reminded me why I became a teacher in the first place.*

Sasha continued to trial using a negotiated classroom timetable. The class had become very confident, asking questions, discussing alterations to the timetable sequence, and offering their opinions. Sasha discovered that it was essential to begin the process by outlining the non-negotiables first, so students knew what had to be incorporated. During the week the syndicate leader had asked Sasha to submit her class timetable, which she had done using a traditional structured format. However, Sasha said, in practice her plan was to continue sharing non-negotiables and involve students in timetabling decisions. Sasha considered it important for students to take responsibility for organising their day and completing tasks. Sasha had handed a few additional responsibilities over to the students, for instance, having them call the roll, complete administrative tasks, and run messages, that in the past, she would have completed herself. Sasha was looking for further opportunities to involve her students in organisational responsibilities, and decision making.

The next school-wide theme was floating and sinking. Sasha's syndicate had already planned the unit starting with what they wanted students to learn, then worked backwards, determining what activities would meet the achievement objectives. This unit was to culminate with a senior raft race, and the middle school was to make models rather than life sized rafts. Sasha considered how she would introduce the topic, so she would evoke intrigue and curiosity and how she would get student input into a pre-planned unit. Sasha's disappointment with the wheels unit made her conscious of the

need for high interest themes to generate quality discussion and questions. She decided to use an immersion activity by providing a broad array of equipment, including polystyrene, modelling clay, ice block sticks, rubber bands, straws, string and other objects. Design criterion was to use as much materials as possible to make a raft that floated. Children chose who to work with and eagerly began the task. During this time several student teachers were visiting to observe curriculum integration. Sasha asked student teachers to pose questions rather than provide answers. The children were testing designs in water troughs, and modifying their rafts after each test. When completed they were asked to draw their model and label each piece with details of the materials selected, and why. Sasha said a number of interesting questions were raised about which materials were best, and how shape affected the raft. Balance was an issue for one group, which became the source of much discussion. Sasha asked her students what they would like to do as part of the unit, and the response was to do more experiments and test different designs and materials.

Following this lesson Sasha sat down with the student teachers and explained her programme and teaching pedagogy.

> *I told them that while I am certainly no James Beane, I strongly believed that the fundamentals of curriculum integration are democracy, negotiation and power-sharing in the classroom. I explained how at our 'traditional' school, curriculum integration was seen as a subject rather than 'a way of life' and how beginning with these fundamentals encourages both students and teachers to gain confidence, take more risks and move along the continuum as your beliefs strengthen. The biggest kick I got was hearing myself justify my actions and sharing my beliefs. Wow...how I have grown!*

Soon after this Sasha was frustrated by the constant interruptions with school-imposed assessment task which prevented her maintaining continuity. Assessment arose again when she attended a maths meeting, which discussed testing and national norms. One of her colleagues commented

> *"See that's why CI (curriculum integration) just doesn't work! You need to be focussing on all these things to bring the kids up to speed. You have not got time to do CI"*

Sasha responded:

> *I believe in 'just in time' learning rather than 'just in case' so learning is relevant. Does it really matter that measurement is investigated in term 1 in a relevant context, rather than term 3 when it is 'scheduled' on the long term plan? The difference in the kids' learning will be huge when you can offer meaningful situations.*

Sasha said she was tempted to elaborate on the explicit teaching that takes place as part of curriculum integration but knew she was wasting her time, as her colleague believed teachers should be responsible for decision making and curriculum. Focus meeting three provided time for further reflection.

Focus Group Meeting Three

Sasha shared the actions she had explored while researching. Initial comments relate to her first question:

> *How can I involve the students more when planning the wheels unit?*

Although abandoning the wheels context for the broader inventions theme, Sasha felt she had raised student input at the beginning of the

inventions unit by selecting a context students could relate to: how to improve their bicycle. She also tried to incorporate more hands-on activities to engender interest and raise questions. Sasha had used a hands-on challenge to trigger curiosity when beginning the floating and sinking unit. This was a new step for Sasha as she was taking time to listen and pursue students' ideas, rather than preplanning the direction of the entire unit. The second question was:

> *How can I involve the students more in planning the timetable while acknowledging non-negotiables?*

This was an area Sasha wanted to continue developing .This strategy had proved successful in helping students develop more independency, while addressing the self-management competency. Sasha's previous continuum placement was 25% for decision making and planning, now she placed herself at approximately 40% for decision making, and 25% for planning (Figure 27). Sasha believed although she had raised student input within units, she was primarily planning the content.

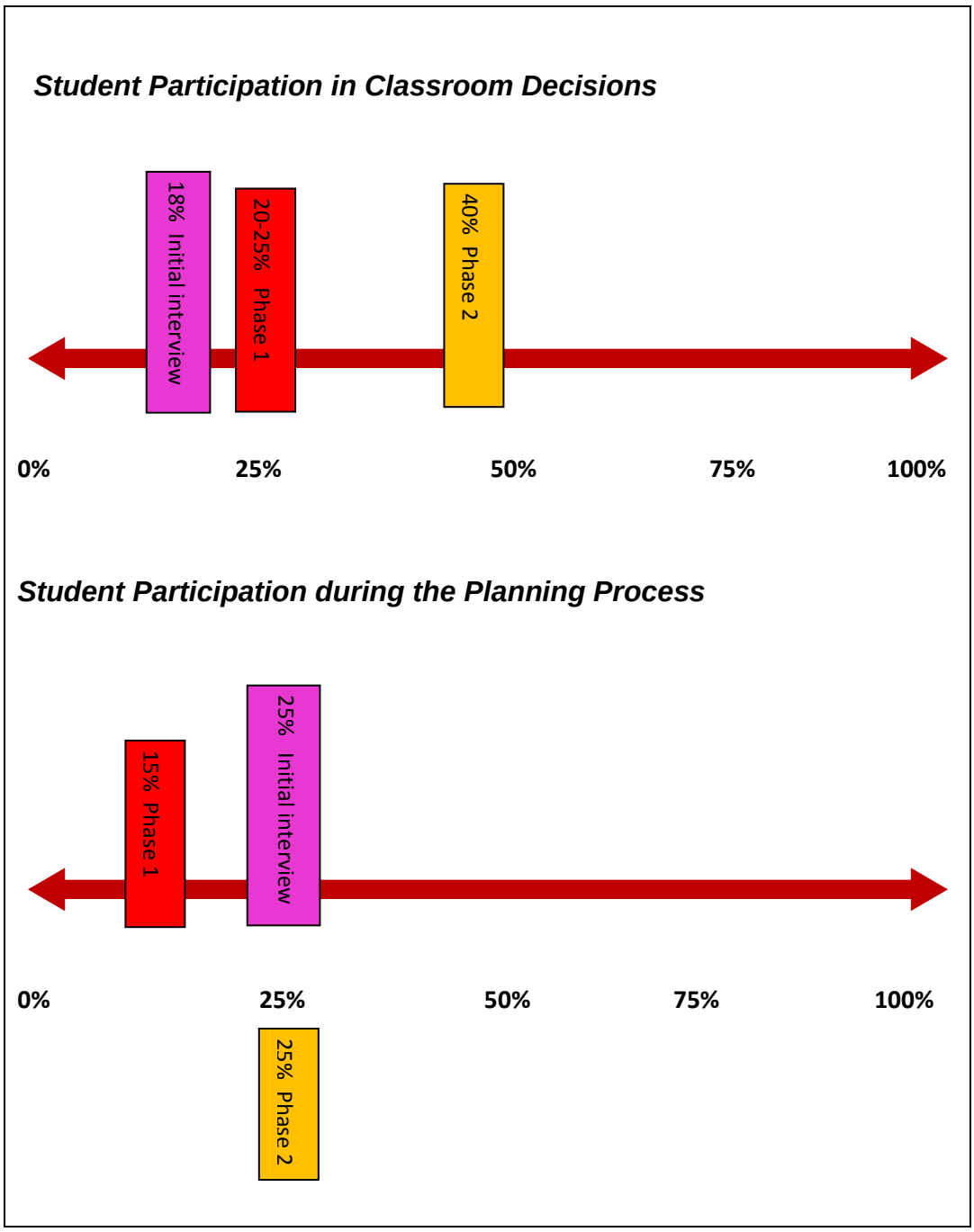

Figure 27: Sasha's cumulative continuum placements at the completion of phase two

Sasha wished to continue researching student inclusion in planning. Her inquiry was:

How can we plan our floating and sinking unit together while demonstrating creative and thorough learning?

Further, she wanted to extend student contributions to her literacy programme posing:

> *In what new ways can I incorporate more student input into the literacy programme that will appeal and extend literacy knowledge?*

The following section discusses the actions taken while inquiring into these research questions.

Phase Three

Classroom Actions and Reflections

The research questions above were explored in the following ways. Sasha continued the school-wide floating and sinking theme, incorporating student ideas where possible. She integrated beyond the non-negotiable learning areas of science and technology, to help students make further connections and consolidate learning. Using varied resources assisted with this intent, such as the books *Archimedes Bath* (Allen, 1980), *Who sank the boat?* (Allen, 1995) and a number of science websites, allowed literacy skills to be contextualised. Sasha was able to incorporate a school-wide assessment task on punctuation within the unit. According to Sasha, students thoroughly enjoyed the experiments, and were making links to taking baths at home, and swimming in the pool. They drafted sketches of raft designs in preparation for construction. Children opted to work in groups, or alone.

When the children were generating the assessment criteria for raft construction I was present in the class. The session opened with a discussion on the learning acquired through experimentation. Students talked about water displacement, buoyancy, neutral buoyancy, gravity, shape and air. The

children were unaware the criteria they were about to establish had previously been set by the syndicate. Sasha wanted her students to feel they had co-constructed these themselves, before they began their final raft design. Students' ideas were recorded when they matched the predetermined criteria, contributions that did not were skilfully manipulated through discussion, subtle hints, and closed questioning. The resulting co-constructed criteria determined the rafts must: float, have a flat deck, be no larger than A3 size, be balanced and must take a one kilogram weight without sinking. The design plan should: use suitable materials, be clearly labelled and measured. The students were also involved in the final assessment of the unit (Appendix O).

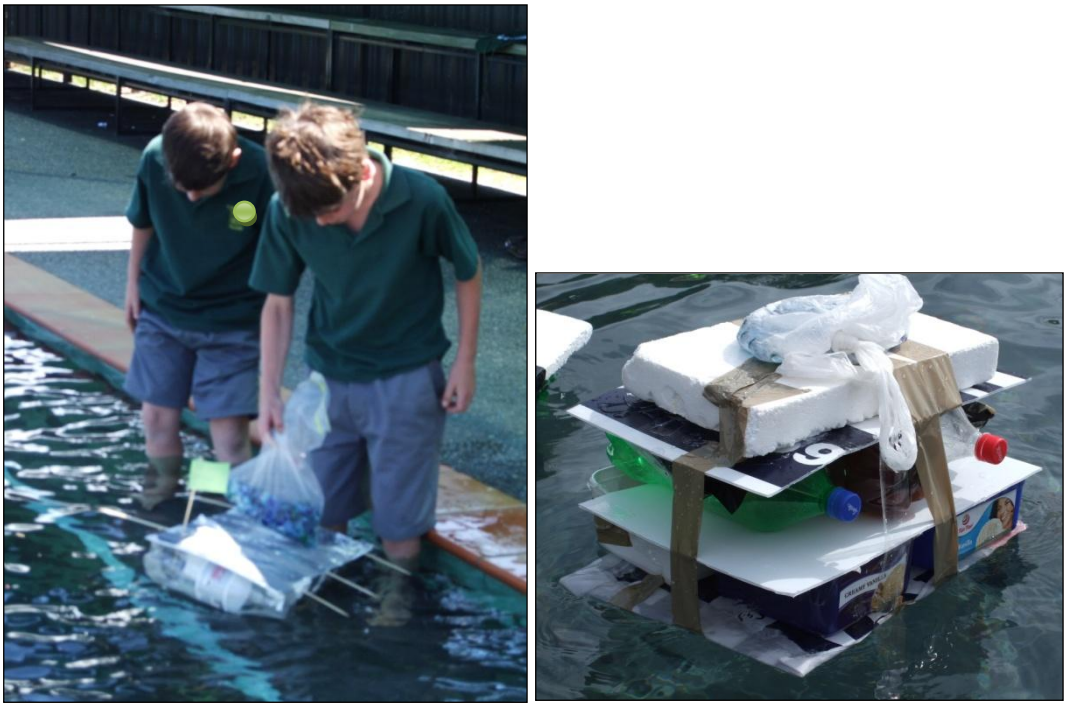

Figure 28: Floating and sinking raft experience

When the rafts were completed they were taken down to the pool to be tested. Modifications were made, adjustments recorded and rafts retested (Figure 28).

The second research question Sasha wished to explore was how she might include more student input in the literacy programme. Sasha found this challenging, as the ideas students had generated in the past were drawn from previous school experiences, and lacked creativity. Consequently, a resource text titled, *The reading activity handbook* (Cameron, 2004) was introduced. This book provided a vast array of innovative activities to engage students in texts, including designing business cards for characters, wanted posters for crooks, creating journal entries written by characters, storyboards and maps, to name but a few. Room Four reacted enthusiastically to the idea of including these activities in their literacy programme. Sasha photocopied tasks students expressed an interest in, and asked them to tick any they particularly liked. From there, students determined which tasks were most appropriate for their particular chapter book. The variety was appreciated, as it gave students creative ideas for responding to texts. After completing a number of activities, children commented on the discrepancy in the quality of the work being produced. Further, discussion determined a marking criterion was necessary, so students would know what standard was required. This was created by the students and attached to each task (Appendix P). Sasha said activities were creative and motivating, encouraging students to examine plots and understand the characters. Extensive choice allowed pupils opportunity to work at a pace that suited their reading ability, with most reading several books and some as many as six. Sasha believed literacy choices offered early in the year provided the foundational skills required to work independently. Student choice was extended to homework tasks, with more choices available and consensus gained through votes. Sasha believed her class were now confident making choices, working independently and justifying decisions. When relieving at Sultan Primary Sasha noted students

had difficulty making choices and she believed choice was essential to motivation.

Reflection on final research question and continuum placement.

Research questions explored above were:

> *How can we plan our floating and sinking unit together while demonstrating creative and thorough learning?*

And

> *In what new ways can I incorporate more student input into the literacy programme that will appeal and extend literacy knowledge?*

Sasha included greater student input in her floating and sinking unit than previous units she had taught, but recognised there was significant room for growth. Greater input into the literacy programme also took place and she felt she had broadened student perspective on creative activities around texts.

At the beginning of phase two Sasha placed herself on the continuum at 40% student contribution to decisions, and 25% for planning. On reflection, she now considered herself to include students in 60-62% of decisions. However, planning was left at 25% because planning was extensively syndicate determined. Sasha believed this had inhibited opportunities to plan *with* students. Her continuum placement, she suspected, was "*a little conservative"* but that was where she was comfortable positioning herself. Sasha said *"You've got to be very honest with yourself on a continuum."* Elaborating further she said, *"I suppose it's just my own confidence, that's really what it comes down to".*

Sasha considered learning had been steep since her initial planning continuum placement of 30%, which she later determined, was too high. In

her current situation, raising student involvement in decisions was her priority. She believed inclusion in planning would rise as she gained increasing confidence (Figure 29).

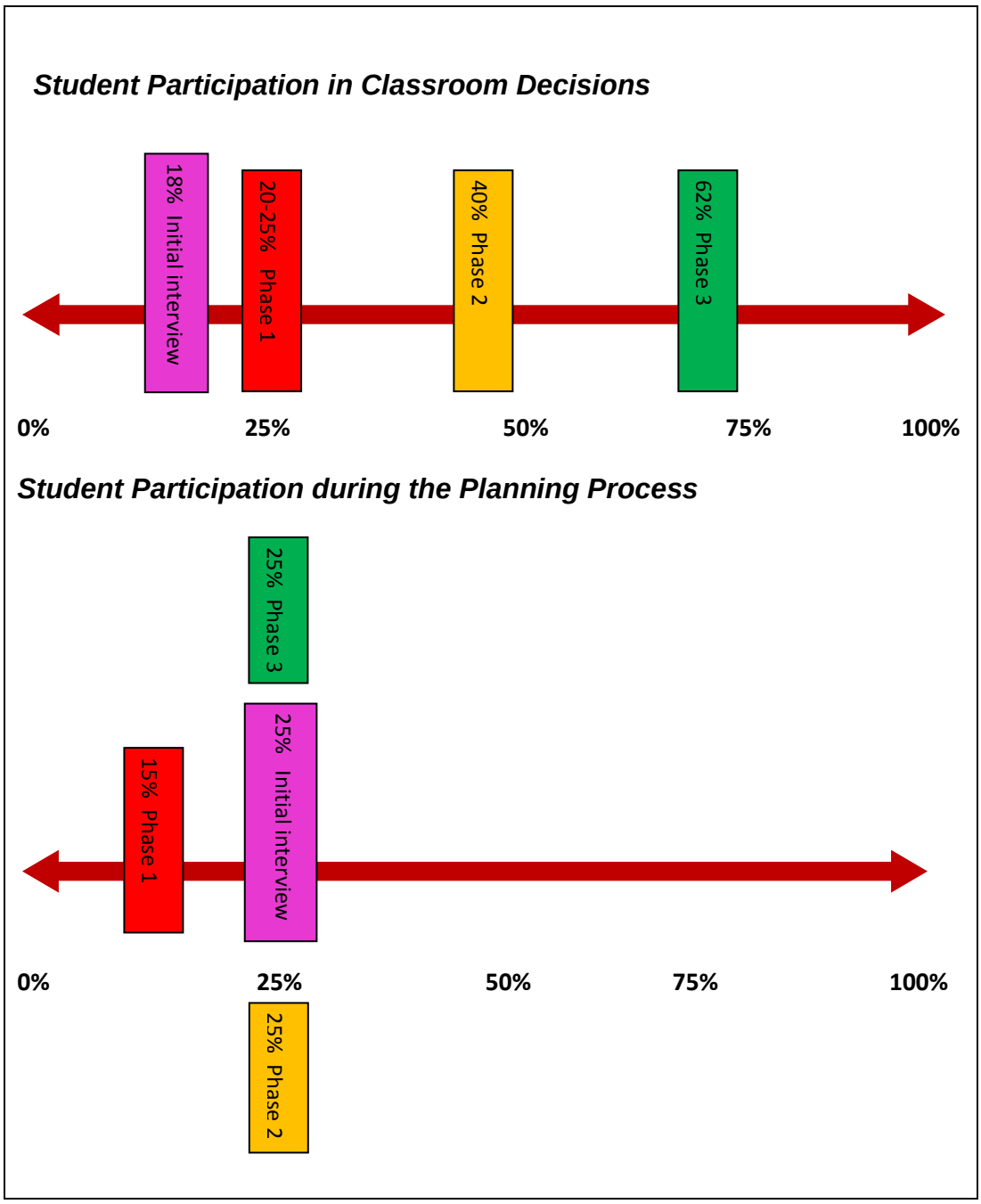

Figure 29: Sasha's final continuum placements at the completion of phase three

Semi-structured Interview and Focus Group Discussions

Teaching philosophy and practice.

Sasha believed her philosophy and practice had changed considerably.

> *It's all about the kids, they have got the best ideas, they feed off one another… It shows you how the teacher standing up in front of the class, telling them what they think they need to know, is so boring, boring for the kids. How do you expect to get them hooked in? They need to have ownership. You need to be asking them, so they feel like they are valued.*

Sasha believed she was doing a lot more listening, and acting on contributions. This, she determined, made the difference between a teacher and a facilitator. The children are *"driving the ship"* more in the classroom. When discussing the match between her practice and pedagogy she talked about leaving university with ideals. Yet she realised now her philosophy had been merely rhetoric *"I have made a total shift. I had a philosophy, but I didn't really understand it until now*." Trying to implement her ideals involved a reality check. What you are able to do in your classroom, she believed, was contingent upon the environment in which you worked. Each school has different structures, values and priorities.

Moments of enlightenment.

A moment of enlightenment came when she stopped to ask her class, *"Why the big groan before writing?"* The children reported that all they wanted was to choose their own writing context (refer phase 2 above). Recognising how prescriptive her teaching had become, Sasha's said this event altered her future practice. Wherever feasible, student input was sought, and when

mistakes were made, this was acknowledged and discussed with the class. For Sasha, the writing experience served as a reminder of the importance of listening. In the past, she would have been reluctant to have such open discussions. She attributed the honest dialogue, to the positive, empowering, environment where students felt comfortable expressing opinions, asking questions and seeking help.

Another realisation for Sasha was that her perception of what curriculum integration entailed had changed. Initially, she thought the approach involved groups of children everywhere doing lots of amazing things, but she realised:

> *The guts of it is democracy, and just listening to the kids, and that; that's probably the biggest thing I've learn't.*

Sasha said she would advise teachers to begin student-centred curriculum integration by building confidence through open discussions. Demonstrating to students that comments are valued through acting on ideas, rather than just saying:

> *"That's a good idea" or "We are running out of time" or "We're going to do this instead".*

Sasha said, if teachers fail to act, students will stop contributing, thinking *"What is the point, it will never happen".*

The challenges.

Sasha said gaining student confidence was challenging as pupils were young and sceptical. Predetermined planning was a constant constraint. Sasha decided in the future she would work around this by sharing objectives with students and asking, how they want to get there, and what they want to learn about a topic. Sharing negotiable and non-negotiables requirements had been an effective strategy to help students understand restrictions. Another

challenge had been having the courage to speak up in front of colleagues when she felt there was lack of student inclusion in decisions. By the end of the project Sasha thought the syndicate were beginning to heed her constant calls for more student inclusion and inquiry. Initial accountability concerns had been addressed, because the syndicate predetermined learning objectives. Sasha worked backwards, from objectives rather than experiences to ensure units met school-wide requirements.

The benefits of student-centred curriculum integration.

Setting her own research questions was beneficial as it allowed her to pursue inquiries suited to her teaching situation. Sasha wanted to continue exploring her practice next year having recognised student benefits. Ownership over learning and students' ability to ask questions were significant gains.

The future.

Sasha identified several areas for future development. Firstly, she wanted to incorporate more student-initiated ideas into units, bringing children's contributions to syndicate meetings before planning took place. Sharing non-negotiables was something she would continue to explore, along with student inclusion in decisions and increasing levels of choice. Next year, Sasha wanted to share her philosophy with parents so they understood the kind of practice that would be occurring in the classroom. Sasha also wanted to share the research project with other members of staff during a staff meeting.

Sasha's final interview completes the narrative stories of the three participants involved in this research project. This chapter concludes by reporting on the final focus group meeting.

Focus Group Meeting Four

At the final focus meeting participants took time to reflect on the project as a whole and a PMI chart was used to record thinking (Table 5). Data coding processes were shared with participants to provide them with an understanding of how themes are usually gleaned during qualitative research. Participants began discussing themes they believed were central to their study and similarities across cases were considered (Appendix C). Later, following systematic coding and analysis five themes emerged, which closely reflected the participants' perspectives. These were ‘Thinking Democratically’, ‘Sharing Decisions’, ‘In-depth Questioning’, ‘Student Inclusion in Planning’, and ‘Challenges’. The following chapter discusses the central themes that emerged from within this project.

Table 5: Plus, Minus, Interesting (PMI) of project

Co-constructed reflection on project - Focus meeting four		
Positives	Minus	Interesting
• High student engagement with children wanting to work through breaks. • Children able to transfer learning into other contexts. • Observing children's successes using relevant learning contexts • Our own growth and increased confidence. • Recognising small steps are huge steps. • Hearing from students how much difference it was making to their learning. • Constant reflection on practice • Often professional development is a one –off this was not. Researching own practice made project relevant. • Valued support of a researcher to guide and sound off ideas. • Deepened understandings of curriculum integration. Beginning with power-sharing and democracy is VITAL. • Future professional relationships with research team. • Creation of new website for others interested in student-centred curriculum integration	• Perception of others : (It's a fad , Children don't know what they need to know, Don't show me up by doing those interesting things, Too much like hard work, Planning is messy, Curriculum is not covered) • Finding time to write up back-planning • Feeling of isolation • Exhausting • Class is often messy and noisy	• To see what things will be like next year with increased understanding and new students. • Planning became less time consuming as it became planning with, not after, or before. • Moved away from 'pretty' planning. • Need to be pre-organised with how you will keep track of what is happening. • We are now confident to speak up for ourselves. We are fighting for kids in classes and injustice everywhere. We are like disciples for democracy. We see through the rhetoric. • I have made a total shift. I had a philosophy but I didn't really understand it until now. It was just rhetoric. Perhaps schools are the same they often have the rhetoric in but may not have understanding. Schools don't always walk their talk.

Chapter Five

Discussion

This chapter discusses the major findings of this study researching the question: "*What happens in classrooms where teachers are attempting to incorporate the democratic principles and practices inherent in student-centred curriculum integration?"* This chapter is initially structured around the five interrelated themes which emerged from the data. These are: "Thinking Democratically – Pedagogy and Practice", placed in primary position because it influenced the emergence of subsequent themes; "In-depth Questioning"; "Building a Sense of Community through Shared Decision-Making"; "Co-constructed Curriculum"; and "The Challenges of Student-centred Curriculum Integration". A brief discussion on social improvement concludes the chapter.

Thinking Democratically - Pedagogy and Practice

Democratic pedagogy pervades all the principles and practices of student-centred curriculum integration, and is treated accordingly in the literature review. For the participants it was a central area of inquiry and consequently emerged as a specific but integrated theme. Pedagogy is described as a way of thinking about learning and teaching, it is the profession of teaching, or the principles and practices to which a teacher subscribes (Black et al., 2009). Data showed that talking about democratic pedagogy did not necessarily translate into acting democratically, but that planned strategic actions, the research process itself and regular reflection resulted in a change in practice.

The initial interview revealed that the participants subscribed to less teacher-directed pedagogies that invited student inclusion. They referred

to: *"Learning through real life experiences", "Inclusive learning environments", and "Making students feel valued".* In discussions about their philosophy, the democratic principles and practices inherent in student-centred integration were raised and reference was made to the works of James Beane (1997). The participants believed children should pursue issues of interest, with students and teachers planning collaboratively. However, the findings showed that talking about democracy did not necessarily translate into acting democratically. When describing practice, participants predominantly retained ownership over classroom decisions, timetabling, planning, and delivering curriculum. The mismatch between philosophy and practice was openly acknowledged as an area of discomfort. As was the case in this project, when discrepancies such as these are brought to the surface Altrichter et al. (2008) suggested they can form the basis of action research. When comparing data taken from the first and the final interview the participants believed the rift had closed. Toni commented that, "*The gap between my philosophy and practice has closed and my teaching is now true to myself"*. Similar sentiments were expressed by Sasha "*I have made a total shift. I had a philosophy but I didn't really understand it until now. It had just been rhetoric"* and Mikayla reported "*My philosophy and practice now match".*

Redressing the gap was attributed to participant involvement in the project, which offered opportunity to research practice in a supportive environment. This finding concurs with Altrichter et al. (2008) who purported that teachers benefit from researching as they reflect, search for solutions, broaden their knowledge base, and develop professional competence. Data indicated that the PAR process brought a state of heightened consciousness, helping bring democracy to all aspects of the participant's teaching.

The participants identified that the focus group meetings and electronic discussions were instrumental in gaining insight on thinking and practice. These forums provided opportunities to share practice, seek support, extend and challenge thinking and practice, and subsequently

plan new actions. The PAR process was identified as being instrumental in the change process and was considered to be a powerful form of professional development. The teachers found themselves in a constant state of reflection critiquing their practice through the use of self questioning including: *"Could this decision be shared? How can I respond without thinking for my students? How might the children be encouraged to solve this conflict themselves? How can I show my students I'm genuinely listening? Why am I doing this? Why did I instinctively say no?"* (Focus group data). This process saw the participants reposition their thinking which is indicative of the literature's discussion on paradigm shifts and power sharing where a radical adjustment in thinking and practice takes place (Beane, 1997, Brough 2007, Fraser & Paraha, 2002). While paradigm shifts are recognised as one of the biggest challenges, it is surprising that relatively little attention has been given to the change process, with the exception of Hargreaves et al. (2001).

Changes in practice or thinking are recognised for causing anxiety and discomfort. A supportive environment coupled with an understanding of the change process can help make the transition process less demanding (Beane, 1997; Dana & Yendol-Hoppey, 2008; Hargreaves et al., 2001). For this reason professional discussion on paradigm shifts, and emotional and intellectual change was included in the initial focus meeting. It is possible this knowledge may have helped the participants understand and cope with the change process. In this study the participants' limited teaching experience may have worked in their favour, as Mikayla identified she was entering the project with "few preconceived ideas" and consequently may have had less ingrained thinking and practice to question or change. Nevertheless, participants did experience varying levels of discomfort. This is addressed in greater depth in the challenges section.

Literature on professional development considers what comes first, a change in belief, or a change in practice (Nelson, 1999). During the project, change appeared to be a synchronous or interconnected process.

Participants reported that they learned through experience, that trying new things caused them to question or consolidate their thinking. Altricher et al. (2008) suggested a commitment to change and an experimental attitude is the core to successful research. The participants' values-orientated disposition may be what drove these teachers to take risks and explore their practice. It was found that the exploration of small democratic actions saw participant confidence increase and student motivation rise, consequently encouraging further inquiry. Small self-determined steps allowed the participants to transition slowly to this complex power-sharing pedagogy. Mikayla's comment summed this up: *"Trying the little things and seeing the positive effects it had on my children gave me the confidence to take more risks"*. Had student reaction been adverse this may have had participants question their pedagogy. It is difficult to conclude if the participants in this project initially only *"had the rhetoric" (Sasha)* and as a consequence of actions the rhetoric turned to belief or their *"disciples for democracy"* (Sasha) attitude was what drove them to act in particular ways when placed in a team of likeminded practitioners. During the final focus meeting participants commented on the number of schools that espouse 'child centred, inclusive practices' and concluded perhaps they lack understanding, as they had, about how to shift rhetoric to practice. Hence, the findings from this project provide useful knowledge on how small strategic actions, reflective practice, and a supportive risk-taking climate, can support the transition to more democratic forms of teaching pedagogy.

Democratic thinking permeated all subsequent themes including question construction.

In-depth Questioning

The fact questioning was so prevalent throughout the data is unlikely to be a surprise to those familiar with student-centred curriculum integration. As evidenced in the literature review, skilful questioning is considered essential (Chapter two). The findings of this study add to the

knowledge available on the types of questions and discussion strategies that contribute to the creation of more democratic classroom environments. Data showed that student contribution and thinking was raised when teachers avoided providing answers, asked agenda-free questions, genuinely listened and, where feasible, acted on student's ideas. Personal research questions were also instrumental in changing participants' questioning styles, particularly those focused on raising student thinking, involving students in decision-making, and increasing student voice. The first strategy to be discussed is resisting the temptation to impart knowledge.

Teachers found by *"resisting the temptation to answer questions"* they were able to raise student thinking, particularly in problem-solving situations. Rather than answering, as they would have in the past, teachers would respond with another question such as, *'What do you think you could do?' 'How could we find out?' or 'What do you think you could try?"* Participants also asked more questions themselves to model curiosity and create discussion. This was particularly evident in the junior class where a significant number of, "I wonder" questions were asked. This kind of think out loud questioning helps students understand the problem-solving process (Nesin & Lounsbury, 1999).

Findings also showed that the quality of discussions and questioning was influenced significantly by the teacher's agenda. Participants reported that the most effective discussions were those where the sole purpose of the discussion was to genuinely determine the students' perspectives. During these kinds of discussions the participants avoided providing "*big clues"*, *"steering", or "guess what's in the teachers head"* questions. A conscious effort was made to let discussions flow naturally and time was taken to draw out students' ideas. Participants found issues-based questions were a particularly powerful forum for discussion, with children becoming skilful at justifying opinions, debating, and considering alternative perspectives. Less controlled conversations frequently followed valuable unanticipated pathways. Examples drawn

from case studies included asking questions where there was no 'right' answer. *"Do you think they should have shot the tiger? What could be done to stop the people losing jobs at the pools? How would we convince others we need a bigger classroom? How would we help young students learn about road safety?"* The occurrence of issues-based conversations is central to Beane's (1997) approach, with teachers asking older students directly about personal and world concerns. My teaching experiences suggest this is far more challenging with younger children who struggle to generate initial ideas. Fraser (2000) suggests teachers new to curriculum integration should take time to discuss issues of interest. In this study posing questions about issues that arose on a moment by moment basis, or from newspaper clippings brought in by children proved effective.

The kind of discourse used was not consistent throughout the project with many conversations remaining heavily teacher-directed. When agendas were predetermined by schools and highly prescriptive units or assessment requirements were mandated, participants employed skilful manipulation, subtle hints, and closed questioning in an attempt to extract or impart the required information. These kinds of discussions did not resonate with the negotiated practices espoused in student-centred integration. Genuine negotiation does not include the skilful manipulation of ideas or the pretence of power sharing by offering limited decision-making opportunities (Boomer, 1996; Nesin & Lounsbury, 1999).

As the project progressed the teachers gained increasing levels of confidence to participate in agenda-free discussions or to deviate from their planned programme. Participants found this ability to construct thought-provoking questions and lead controversial discussions improved with increased experience. During discussions the teacher asked questions that extended children's thinking into areas they may not have considered. They also helped students make connections to previous units or up-and-coming themes. Given that children are not always aware of the curriculum potential that lies beneath the questions they pose or conversations that develop, teachers need to draw on their professional

expertise to recognise when it is appropriate to intercede. Scaffolding student thinking is essential with teacher professional knowledge influencing the quality of conversations (Fraser, 2000; Nesin & Lounsbury, 1999).

It could be argued that the emergence of skilful questioning as a theme was influenced by the fact that the participants were novice teachers and consequently their questioning skills were still developing. While this is acknowledged to be a potential contributory factor, it is also important to note that teaching experience does not necessarily equate to quality questioning. Research reveals that most teachers control and dominate classroom discourse, primarily asking questions which require lower-order thinking. Teachers make little use of wait time, ask questions that necessitate students guess the answer, and deny opportunities for asking questions (Killen, 2007; McGee, 2008). In contrast, when conducting 'agenda-free' discussions, participants listened more attentively and genuinely sought to understand students' perspectives. This may have occurred because the teachers were less focused on constructing the next question which would steer children towards specific achievement objectives and were instead focused on listening.

The teacher participants made a concerted effort to listen more assiduously. When open discussions took place, students offered more opinions; hence teachers found themselves placed in a position of deciding if they would act on suggestions. Interestingly, teachers also found they became more attuned to reading student reactions, both during learning and discussions. When sensing discontent they would ask further questions and self-question. Teachers in the project found that a more open learning environment placed them in a vulnerable position as students were invited to offer constructive criticism on practice. In this project this kind of honesty led to transformations in practice. Taking children's ideas on board demonstrated teachers were prepared to act democratically rather than just talk about democracy. This resonates with Beane's (2005) point that: "The way to 'learn' democracy is to live the

democratic way" (p. 2). The more teachers listened and took action, the more ideas students contributed.

This study contends that skilful, agenda-free questioning is a pre-requisite for co-constructed planning. Teachers need to be competent and confident to discuss complex issues without positioning or steering children towards a particular perspective. If teachers are not used to facilitating these kinds of discussions I consider it highly likely they will consciously or unconsciously control the direction of the planning.

The results identify a number of useful strategies for teachers wishing to enhance questioning and discussion skills, including conducting agenda-free discussions, issues-based conversations, posing questions themselves, and genuinely seeking student's opinions. It is important to note that questioning permeated other themes, with participants planning questions which deliberately sought student opinions concerning decisions, responsibilities and planning, thereby helping build a sense of community.

Building a Sense of Community through Shared Decision-Making

Part of the teacher's role in student-centred curriculum integration is to build a sense of community. Participants in this project determined that sharing decision-making and responsibilities was a central ingredient in establishing a collaborative learning environment. Throughout the project participants explored decisions they could share with children. To the reader, initial explorations may be perceived as fairly simple, but for participants, these acts were stepping-stones which involved sharing decisions for which they had been solely responsible for in the past. It is possible that this gradual process may have also helped the students' transition from more structured programmes. The participants found that by sharing small decisions, a climate of trust and shared responsibility was created, providing a foundation for student involvement in planning. As *The New Zealand Curriculum* (MoE, 2007) suggested: "Effective

teachers....look for opportunities to involve students directly in decisions relating to their own learning. This encourages them to see what they are doing as relevant and to take greater ownership of their own learning (p. 34).

Offering student choice was an initial decision-making step for several participants. Fraser (2000) argues that providing choice is not genuine decision making, particularly when options are predetermined by the teacher. In an ideal democratic context I would concur. However, the research took place in diverse settings, including some in which the children previously had little or no input into any classroom decisions. Choosing which tasks to do, justifying decisions, using 'Must Do' and 'Can Do' charts, and contributing to timetabling decisions, was new territory for many children and teachers. Given that each context is different, it is important that adaptations are made accordingly.

Participants found involving students in problem resolution heightened student responsibility levels, and offered more genuine decision making opportunities. This links to the notion of shared responsibility which is suggested to be part of managing collaborative student-centred classrooms (Hyde, 1996). Collaboration, Hyde contended, includes decision-making responsibilities, joint planning and behaviour issues. Problem resolution provided an opportunity to solve small issues relating directly to the students' immediate environment. Examples from case studies included solving a homework issue, a wet lunchtime incident, how to hold up a letterbox, and how to address disrespect towards a relief teacher. With older students Toni planned explicit questions to ascertain student opinion on classroom environment, decision making and learning, in asking what decisions children would like to share, and how they would like to learn (Table 2). Accordingly, the class assumed responsibility for much of the programme organisation, duty rosters and class meetings. An important finding was that as participants moved themselves up the decision-making continuum they gained increasing confidence to involve students in planning.

Arguably, building a sense of community adds to skilful questioning, as a second prerequisite to co-constructed planning. It is probable that taking time to create a democratic climate strengthens student-teacher relationships and builds an environment of trust. Teachers in this project found that once a democratic learning environment was created, students were eager to contribute to the co-construction of curriculum as they knew their contributions would be given serious consideration. These findings offer insight on how teachers can transition to this power sharing pedagogy which ultimately leads to the co-construction of curriculum.

Co-constructed Curriculum

Student inclusion in planning is the central tenet in student-centred curriculum integration. It is territory fraught with controversy since it challenges the status quo and questions assumptions about who should control curriculum, subject status, and learning (Apple, 2006; Grundy, 1994). Having students call the roll, solve classroom incidents, and run class meetings shares power in areas that are not linked to teacher accountability. However, curriculum planning is linked to accountability hence the stakes are perceived to be higher. Traditionally, those holding curriculum knowledge have possessed the power. Critics argue that integrating curriculum derides and even denigrates specialist subject knowledge (George, 1996). There is scant research available on co-constructed curriculum in the primary school sector and consequently these findings contribute towards redressing this research gap.

The teachers investigated how to include students in planning while addressing curriculum knowledge and subject accountability. In many instances, participants found they were limited as to how much student inclusion they could offer because of predetermined planning frameworks. In other situations, they had significantly more freedom to determine the topic and amount of student inclusion. Hence, data fell into two subthemes: “Co-constructed planning within predetermined themes” where

teachers sought opportunity to include students in units that were largely pre-planned, and “Co-constructed planning from student-initiated themes” where both the theme and learning was determined *with* students.

Co-constructed planning within predetermined themes.

During the nine-month data gathering period all three schools used pre-determined topics or themes with the number per term varying between schools. In some instances, units were fully pre-planned by teachers in age-related syndicates. In other instances, theme and achievement objectives were provided, with learning activities and experiences left open. Findings revealed that highly prescriptive units limited opportunities for genuine student inclusion and decision making. Where negotiation was possible it was found that students developed the ability to justify decisions and acquired self management skills.

In highly structured units, participants looked for opportunities to offer a choice of activities, presentation and assessment. If student ideas fitted within the themes framework they were incorporated wherever possible. Participants found structured units restricted opportunities to incorporate student inclusion and felt the need to steer discussions to meet achievement objectives. This links to previous discussions on agenda-based questioning. In more open units, teachers found they were able to invite students to contribute to initial unit brainstorms, and subsequently were able to incorporate pertinent suggestions. Questions inviting students to contribute to units included *“How would you like to learn this topic?”, “What would you like to learn about within this theme?” and “How would you like to present your learning?”* Teachers asked the students what they knew, and what they wanted to know. Boomer (1996) and Cook (1996) recommend these kinds of questions as part of the planning preparation phase. Participants commented that the level of student inclusion was not entirely contingent on predetermined themes and objectives but also personal levels of confidence.

Open discussion on negotiables and non-negotiables (seniors) or 'Must Do' and 'Can Do' options (juniors), was a student inclusion strategy used to varying degrees in all three classrooms. This approach enabled students to understand where and when they were able contribute. When discussing negotiation, Cook (1996) identifies the importance of parties coming together in a "meshing of minds", an "interlocking of intentions", and an "agreement of means and ends". Negotiating was evident within many aspects of the project including timetabling, unit negotiations, and long-term planning. Some of the participants' colleagues argued that primary-aged children are not capable of participating in negotiations. The findings of this project contradict this assumption with student negotiations taking place in all three case studies. My assertion is that students learn the art of negotiation early in life. *"If you eat one more piece of broccoli you can have some ice-cream"*, is introduced in the high chair. Children run from one parent to the other negotiating terms until they gain a favourable option. Do they not bargain on a daily basis? "If I do my homework can I go over to Sarah's house?" Is this not as Cook (1996) says: "an agreement about means and ends" (p. 15)? Hence, the findings showed that by including negotiation wherever possible ownership was enhanced and the student's ability to work independently increased.

Co-constructed curriculum from student-initiated themes

This subsection discusses student-initiated themes from which a collaborative or co-constructed planning process evolves. The results revealed that student inclusion in planning heightened levels of engagement and retention of learning. Planning included the co-construction of full units or a series of lessons. Relevant learning contexts, explicit teaching and scaffolding, and documentation of planning were important components that emerged. The participants anticipated that relevant learning contexts would emerge as a central theme. However, when coding data, it was found to feature within co-constructed planning.

Participants in this project did not initiate collaborative planning as Beane (1997) recommends with adolescent students. He suggests asking "What questions or concerns do you have about yourself?" and "What questions and concerns do you have about the world?" (p. 51). Teachers viewed these as rather daunting questions to pose, particularly when they were new to student-centred curriculum integration. It is arguable that they are more appropriate for use with adolescents who are at an age where such concerns and issues are central to their lives. Instead, teachers elected to pursue areas of student interest that were "drawn from [classroom] life as it is being lived and experienced" (Beane, 1997, p. xi). In this project, themes arose from issues of 'class' concern or interest, and were occasionally community orientated. Learning contexts emerged from what might be defined as the pursuit of 'spontaneous learning opportunities'. In previous writing, I referred to such occasions as 'teachable moments' (Brough, 2006, 2007, 2008a). However, it is concerning that *'teachable'* may be misconstrued as what Boomer (1996) rather delightfully refers to as the *teacher-as-head-stuffer* (p. 92) stance on curriculum. This view may mean teachers perceive this as an opportunity to impart knowledge rather than investigate or problem solve with students.

In this project, spontaneous learning opportunities were student-initiated areas of interest or inquiry and these emerged naturally throughout the school day. They were unplanned events that were pursued because of high student interest and the rich learning potential. The classroom extension, 'the arrival of the digger', 'newspaper clipping discussions', and 'road safety' were instances of this. Participants used these incidents to trigger the co-construction of curriculum. Students asked questions, brainstormed, suggested learning avenues, planned courses of action, and made assessment decisions. Participants found that when units or lessons were student-initiated and student-planned, heightened motivation was evident, curriculum relevance was enhanced, and learning retained. As Dewey says (1916, 1938) schooling should be related to life

otherwise learning will lack relevance and be forgotten. Enhanced relevance and motivation corresponds with research findings on student-centred integration, nationally and internationally (Bartlett, 2005a, 2005b; Beane, 1997; Hargreaves & Moore, 2000; Harwood et al., 2006; Nolan & Mckinnon, 2003; Pate, Homestead, & McGinnis, 1997; Vars, 1997, 2000).

During co-constructed planning, the teachers found they had to scaffold through modelling and questioning. By these strategies they extended student thinking and introduced new skills. Explicit teaching of curriculum knowledge took place within themes, and most school-wide assessment requirements were successfully incorporated. Teachers found themselves teaching specific curriculum skills to solve problems as they arose, including measurement skills, reading comprehension and writing persuasive and explanatory texts. In successive lessons, participants witnessed students applying curriculum content knowledge in new contexts without prompting. This resonates with earlier comments on relevance and the retention of learning (Dewey, 1916; 1938). Furthermore, it supports Beane's (1997) argument that the disciplines of knowledge or learning areas are not lost. Instead they are repositioned or contextualised within the theme being investigated. Participants found this style of teaching required them to 'think on their feet' as well as possess a sound knowledge of curriculum. It was evident that a complex array of skills, explicit teaching, and curriculum knowledge is required to implement student-centred curriculum integration (Fraser, 2000; Hargreaves et al., 2001; Harwood, et al., 2006). George (1996) argues that not all teachers possess the necessary skill to implement this complex form of curriculum delivery. I would posit that this may be due to teachers moving too quickly into fully co-constructed planning as advocated in the literature before taking time to set the scene, question effectively, and share decision-making. In this project participants transitioned into this complex power-sharing approach through carefully planned steps.

The present study found that collaborative planning requires a new approach to curriculum documentation. The recording of units as they

evolved was a new experience for participants, who were concerned about accountability issues at the onset of the project. The snowballing momentum of student-initiated inquiries caught teachers by surprise and consequently necessitated that teachers document experiences retrospectively. Brodhagen (1997) refers to this process as back-mapping. As teacher confidence grew, participants elected to record co-constructed planning on large wall charts which were hung around the room, ideas were added or changed as the unit developed. Wall charts are advocated by Cook (1996) who suggests that they should be on public display, be created by students and teachers, and be accessible to all. For participants, this involved abandoning tidy planner books, or templates, in exchange for on-the-spot planning. As Brodhagen (2007) noted, "Student-teacher planning of the curriculum was a messy process. There wasn't a neat curriculum guide or text book to turn to for lessons" (p. 100). Fraser (2000) alludes to the anxiety teachers can feel when planners are not completed well in advance of teaching. Participants in the present study evolved their planning process from – planning *for* students, to planning *after* and *with* students. Forward planning was used when teachers anticipated particular skills would need to be taught or resources introduced in order to solve problems. Participants who documented planning *with* children reported that schools considered the wall charts an acceptable planning option.

The findings showed that the more involved the students were in the planning process the more engaged they became in their learning. This was verified with students wanting to work through breaks and complaints were heard when the final school bell rang. However, the collaborative planning described above did not happen consistently as participants experienced a number of challenges which are raised in the subsequent theme.

The Challenges of Student-centred Curriculum Integration

While challenges were evident across all three case studies, the degree and type of challenge was found to vary depending on teacher experience, confidence, and school setting. The subsequent discussion is predominantly confined to commonalities across cases. Challenges included teacher confidence, censure from peers, school/syndicate structures and student scepticism. Findings showed that the participants attributed their ability to overcome many challenges to the support they received working within a likeminded research team. Student scepticism was another challenge which participants found was dispelled through acting on students' contributions.

The participants were relatively new to the profession, with the most experienced teacher having just completed her second year of teaching. Consequently, professional confidence was inevitably still developing. Exploring a challenging teaching approach requiring complex pedagogy and skill, necessitates a high level of risk-taking coupled with an underpinning belief in its value (Beane, 1997; Fraser, 2000; Hargreaves et al., 2001). As the following comments indicate, participant apprehension varied: "*I'm concerned it is too early in my career to be straying from the basics" (Sasha), "I have feelings of insecurity worrying if I am doing things the right way" (Mikayla), "I'm not sure I can do this, it's getting so big. It's scary and exciting all at the same time" (Toni).* Teachers found that their confidence grew by taking, and celebrating, small successive steps. As well, observing heightened learning and student engagement gave participants the confidence to defend their actions when challenged.

When exploring what has been described as contentious and ambitious curriculum reform, it is of little surprise that participants found they faced antagonistic colleagues who favoured a more traditional subject-centred approach to curriculum delivery (Hargreaves et al., 2001). Comments that they encountered reflected many of George's (1996) criticisms on curriculum integration such as, it is just a fad, it is too time consuming, it places pressure on other teachers, and it fails to address

required curriculum content. Subsequently, participants found their confidence grew to such an extent that, when challenged to defend their practice, they felt able to do so, *"We are now confident to speak up for ourselves, it's not for our own needs. We are fighting for kids in classes and injustice everywhere. We are like disciples for democracy"* (Co-constructed PMI, Table 3). Understandably, at times some participants felt isolated, or even at odds with school practices and systems. These feelings of censure and alienation are common (Beane, 2005).

The challenge of working within predetermined planning frameworks was raised in the planning section discussion above. Detailed long-term plans and syndicate pre-planned themes left participants feeling frustrated that they were unable to pursue spontaneous learning opportunities, or plan consistently *with* students. Although participants attempted to work around constraints, there were occasions when teachers felt obliged to follow the planning provided. School-wide testing procedures and cross grouping interrupted theme cohesion and limited opportunities to teach or apply curriculum within a relevant context.

The final challenge to be discussed concerns the attitudes of the students themselves. Initially student cynicism was a challenge in the older classes. Unlike the five-year-olds, older students had previous school experiences and were sceptical whether power-sharing would be genuine. This resonates with other studies which have identified students' distrust and suspicion about whether their ideas will be sabotaged or given serious consideration (Collidge, 2001; Grundy, 1994; Hyde, 1996; Pate, Homestead & McGinnis, 1997). This perspective is understandable, as Bruce's (2005) research shows that genuine negotiation can be subverted by teachers. Participants in this study found that when they seriously considered students' perspectives and acted on their suggestions, it quickly dispelled scepticism.

Participants attributed their ability to overcome challenges discussed to the support provided by the research team. It was perceived to be an invaluable network comprised of like-minded practitioners, who

were also taking risks and providing encouragement. The teachers' tenacity to navigate and conquer challenges could also be attributed to their values-based commitment towards redressing power relationships in their classrooms.

In rejoinder, findings show teacher confidence can be enhanced with the provision of a supportive research environment, that restrictive planning frameworks inhibit genuine negotiation and that initial student scepticism can be negated when teachers genuinely consider students perspectives. Closely linked to overcoming challenges is the desire for social improvement.

Social Transformation

Critical research theory aims to improve situations. As discussed in the methodology chapter, it is as much a political as it is an educational approach given that it is part of a broader agenda of democratic advancement (Creswell, 2002; Kemmis,1997). By exploring the principles and practices of student-centred curriculum integration the three participants created more democratic and empowering learning environments. Student voice was raised wherever possible, and children were invited to participate in agenda-free discussions, decision-making, and curriculum planning. As a consequence of their involvement the participants considered that they had enhanced their pedagogical understanding, confidence, and teaching practice. Inevitably, democratic advancement was largely confined to the participant's classrooms; however, in one case there was evidence of school-wide impact. At Mahy School, Mikayla provided professional development to other staff members, and the school expressed interest in further professional development.

In Summary

There are a number of key findings from this project which add to the knowledge available on student-centred curriculum integration, particularly in primary schools. The teachers in this project shifted from talking about democracy to acting democratically. They took time to reflect on the level of democracy practiced and slowly raised the level of student inclusion in their classroom. They created democratic classroom environments by sharing decision-making and responsibilities with students, which helped build trust and teacher confidence. Questioning was also linked to democracy as the way teachers asked questions empowered students. Findings showed that the most effective questions were agenda-free, and where teachers genuinely sought student opinion. These discussions were often issues based. Problem-solving process questions and teacher think-aloud questions also proved effective. Participants gained the confidence to collaboratively plan as the level of student contribution in their classrooms increased. Participants also found that the most effective co-constructed planning took place when there were no, or few, school-wide requirements. Data shows that the most comprehensive units evolved as a result of spontaneous learning opportunities that occurred during the school day. This finding is significant as it further demonstrates how Beane's (1997) collaborative planning can be adapted at primary school level. This planning process is not reliant on students themselves generating themes but instead, uses incidental issues or experiences that arise during the school day. However, findings also show that planning with students was not without its challenges, the most restrictive being school-wide structures and requirements.

The benefits for students concur with other research findings. These included heightened levels of engagement, the ability to apply learning to new contexts, improved oral language, enhanced problem resolution skills, and the ability to make informed decisions. The approach gives voice to the more reticent student, improves social skills, and enhances student-teacher relationships in the classroom. Moreover, the

findings from this study show this integrated approach is highly feasible at the primary school level. Most importantly, its democratic pedagogy embraces the notion that students have a right to be involved in decisions that affect them, and that their perspective must be taken into account (The United Convention on Children's Rights, 1989).

Chapter Six

Implications and Conclusions

This concluding chapter considers the implications of this project and makes recommendations in light of the research findings. Discussion is consistent with the project's aim: to develop an increased understanding about the implementation of democratic principles and practices inherent in student-centred curriculum integration. Firstly, I have chosen to outline the study's limitations, to enable the reader to take these into consideration while reading ensuing sections. Subsequent discussion of the implications is framed around the five interrelated themes which emerged from this study ("Thinking Democratically – Pedagogy and Practice", "In-depth Questioning", "Building a Sense of Community through Shared Decision-Making", "Co-constructed Curriculum", and "The Challenges of Student-centred Curriculum Integration"). The later sections discuss implications for professional development, and social transformation, and suggestions for future research.

Limitations

Limitations are part of every research project and this inquiry was no exception. This study was a small scale qualitative project; interpretations of the findings should be viewed in this light, as definitive conclusions cannot be drawn. Bassey's (1999) *fuzzy generalisations* will be used (discussed in Chapter, 3) with the possibility, not surety that what happened in these settings may be applicable in other situations. While *fuzzy generalisations* will be made when discussing themes, it is important that the individual case studies also speak for themselves.

The project involved only three classrooms consequently its size limited the potential for making significant situational reform in line with critical theory's aim of improvement (Carr & Kemmis, 1986; Carspecken, 1996). School structures were a further limitation which inhibited the amount of time participants could dedicate to their inquiries. Predetermined themes, school-wide events, cross grouping and standardised testing restricted student-initiated inquiries. In one case, budgetary constraints were also an issue. Findings on student achievement should be viewed tentatively with teacher professional judgement used rather than robust achievement data. The final limitation concerned naturalistic observations. The spontaneous nature of student-initiated inquiries made it difficult to conduct as many observations as was initially anticipated. This was compensated for, to some degree, by teachers photographing and reporting their experiences electronically. Many limitations discussed were overcome through adaptations outlined in individual case studies. Keeping limitations in mind, this chapter shifts its attention to implications and recommendations within the first theme 'Thinking Democratically'.

Implications for Practice

Thinking Democratically – Pedagogy and Practice

As was discussed earlier in this thesis, the participants shifted from talking democracy, to thinking democratically and acting democratically. The implication here appears to be fairly simplistic. Think democratically and you will act democratically. However, acting democratically is new for many teachers, and consequently not natural practice, despite teachers holding a particular belief system that affirms this process. Beane (2005) spoke about the process being both conscious and unconscious at different times. It is likely that for those new to the approach, it is a highly conscious process, with questions and actions deliberately planned in an attempt to raise student inclusion. As Beane (2005) suggested, the more

democracy is lived the more it becomes unconscious, until it is, as Toni stated, *"It's just the way we do things now, it is automatic".* Consequently, I recommend teachers begin with small consciously planned steps or actions which invite heightened levels of student inclusion. Some of the initial explorations implemented as part of this study are worthy of consideration, for example, shared decision-making and agenda-free discussions. Self-questioning is recommended during and following teaching, asking questions such as: *"How can I show my students I am really listening?", "Could I ask my students instead of telling them?", "Could my children solve this issue?", "Did I act fairly?",* and *"How could I include my students at this point?"* Thinking democratically involves teachers considering how they can empower students throughout all aspects of their practice. This thinking includes forward planning, as well as reflection during and following practice to consider if their actions are controlling or just. Thinking democratically also had a significant impact on teacher questioning.

In-depth Questioning

Teachers in this project attempted to ask questions that empowered rather than disempowered students; they tried to construct questions that extended rather than narrowed thinking. It is interesting to note that participants did not study questioning specifically. Participants believed their efforts to bring democracy into all aspects of their practice, affected questioning *"My change in thinking has altered the way I question" (Mikayla)*. It would therefore seem logical to recommend that teachers first consider their position on students' rights, curriculum ownership and control. Shifting thinking from a teacher-controlled perspective, to a democratic student-inclusive perspective, is a paradigm shift that significantly alters discussion agendas and consequently the type of questions asked. While changing thinking or paradigm is perhaps the most ideal scenario, previous discussions allude to the complexity of this proposition (Hargreaves et al., 2001; Nelson, 1999). I advocate that

questioning be considered a useful place to explore bringing more democracy to classrooms. Showing students diversity is respected could involve facilitating discussions on complex issues likely to give rise to multiple perspectives. Valuing opinions means asking questions that genuinely seek to understand students' perspectives. Sensitive considered responses are essential. By implication this requires active listening, with teachers avoiding comments that pass judgement, or position students, hence valuing teacher perspective and knowledge above students. Examples of this behaviour could be, *"That's exactly right that was just what I was thinking*" or "*No, the word I am thinking of starts with a letter p"*. Wherever possible it is recommended teacher avoid agenda-based discussions, accordingly encouraging more natural classroom dialogue. Teachers are nevertheless urged to be astute so questions can be posed that will extend thinking and introduce concepts students may have overlooked. Considering what point it is appropriate to include these kinds of questions requires sound knowledge of curriculum. It is recommended teachers model curiosity by asking questions out loud, as this was found to encourage student questioning. Asking more process questions is advocated so children develop strategies for solving their own questions and problems. Questioning is an appropriate place to begin, as many democratic discussions initiated opportunities for co-constructed planning, decision-making and social action (Dewey, 1936, 1938). Posing questions that involved genuine decision-making helped redress power relationships and enhanced democracy.

Building a Sense of Community through Shared Decision-Making

When participants explored how they might build a sense of community through shared decision-making, they discovered students were eager to contribute. Pupils wanted to take on board additional responsibilities and share decisions concerning classroom environment, organisation and learning. Making more decisions resulted in students offering more opinions, solving problems, and thinking for themselves.

The inference is students will not learn how to assume responsibility and make informed decisions, unless they have been involved in legitimate decision-making experiences. Teachers have traditionally held decision-making power; if teachers reserve that power, by implication they neglect to teach students how to live and act democratically. *The New Zealand Curriculum* (MoE, 2007) purports that students need to be able to make ethical decisions, discuss disagreements and negotiate solutions. It is recommended teachers consider sharing decisions and dilemmas to encourage the development of the kinds of skills traditional curriculum delivery can neglect to provide. Initially, participants shared 'low stakes' decisions and responsibilities. These actions were often quite simple, for example, choice in the order of activities or children taking responsibility for calling the roll. For participants, these small steps proved to be highly successful in the 'letting go' or 'power sharing' process. It is suggested teachers start where they feel most comfortable, slowly building confidence, and subsequently creating a climate of increasing trust. Participants believed their actions spoke louder than words and that simply talking about democracy was inadequate, they needed to model democracy. Gaining student trust and confidence by acting on small suggestions encourages further contributions, leading to conversations concerning curriculum and planning. Participants recommend taking time to set up the initial environment through skilful questioning and shared decision making, as this was instrumental in setting the foundation for including students in the planning process.

Co-constructed Curriculum

In the discussion chapter, planning was subdivided into two sections, co-constructed curriculum within predetermined themes and student-initiated themes. These are two entirely different scenarios. One has constraints which teachers are required to work within, the other has few if any limitations. What then are the implications of these situations?

Co-constructed curriculum within predetermined themes

Teachers are often told topics they must cover, and planning is often completed by teachers and syndicates with no student input. Carr and Kemmis (1986) suggested “From a critical perspective, the teacher needs to develop a systematic understanding of the conditions which shape, limit and determine action so that these constraints can be taken into account” (p. 152). It is recommended teachers consider if there are any areas within the pre-prepared unit that can be opened for student inclusion. This may involve considering what aspects of choice might lie within the theme, or inviting students to ask questions that may be researched. Students could be invited to contribute ideas that can be taken to syndicate planning meetings when themes are known in advance. Teacher planning could be shared with students and additional ideas sought. More recent literature on curriculum integration has begun to take cognisance of the limitations teachers face when trying to include students in planning. Suggestions have included sharing negotiables and non-negotiables and incorporating more democratic practices wherever feasible (Beane, 2005; Boomer, 1996; Cook, 1996).

Predetermined planning has implications for schools. A recent study by Byres (2008) revealed that despite *The New Zealand Curriculum* (MoE, 2007) providing opportunities for greater teacher empowerment over curriculum delivery, school-based decisions were often hegemonic preventing teacher agency. Teachers found school organisational structure, assessment and timetabling decisions either restrained or prevented quality learning. Findings from this study noted a correlation between the more prescription schools employed, and the increasingly limited opportunities for student inclusion. One participant felt she was unable to plan full collaborative units because of prescriptive syndicate pre-planning. Working within narrow frameworks made it challenging to see where student inclusion could be sought. Carr and Kemmis (1986) discussed how difficult reform can be when it is reliant on systemic change. It is recommended schools consider how they might begin

to include students in planning, and how school structures might be made more flexible to allow teachers opportunity for student inclusion. If topics were predetermined, but not fully planned, students could be invited to contribute ideas. Participants in this study found advance warning on strand focuses, achievement objectives, or writing genres was easier to accommodate within student-initiated themes than highly prescriptive topics.

Co-constructed curriculum from student-initiated themes

There are also a number of implications resulting from participants' collaborative planning experiences. Teachers believed a major finding was heightened relevance and increased motivation for students. Greater input produced more engaged students. Hence, it is recommended students be included wherever and whenever possible within planning. It is suggested schools consider how students' lives and experiences can be made central to curriculum. More flexible planning frameworks would allow the pursuit of spontaneous learning opportunities. This stance resonates with contemporary curriculum theories which question imposed curriculum (Apple, 1990; Beane & Apple 2007; Grundy, 1987).

Pre-considering the documentation of planning is recommended to allow teachers to plan on the spot *with* students, ultimately saving time. As previously discussed, the first participant to plan a fully co-constructed unit had not anticipated planning *with* students so early in the project. Understandably she was challenged to consider how to document the process. By trying new approaches to curriculum delivery, teachers can find themselves the focus of attention, particularly in relation to curriculum accountability. Documentation needs careful consideration, and explicit teaching and scaffolding must not be neglected. Documentation was a challenge that was easily overcome through the use of wall chart plans identifying curriculum coverage and learning. A number of other challenges also existed within the project.

The Challenges of Student-centred Curriculum Integration

This subsection is predominantly a synopsis of the preceding discussion as most challenges were raised within the themes discussed above. Most writers on curriculum integration have openly acknowledged that the pursuit of democracy is not an easy path (Beane, 2005: Dewey, 1946; Hargreaves et al., 2001). Shifting from teacher-directed behaviours to more democratically inclusive practices was one of the greatest challenges in this project. Participants were challenged to consider how to share power in areas they had previously controlled. Democratic thinking permeated all themes requiring participants to construct more empowering questions, listen and act on student ideas, consider what decisions should be shared, and how to include students in planning. This meant the direction learning took was seldom mapped out in advance, and this unfamiliar terrain consequently caused periods of initial discomfort and challenge. Small democratic steps are recommended to reduce potential anxiety until actions and thinking become unconscious. School structures impeded student inclusion. The more structure and prescription, the more teacher-directed the classroom environment became. It is suggested schools consider planning frameworks that require evidence of content coverage but offer flexibility on learning contexts. It is likely that traditional separate subject delivery and prescriptive curriculum mandates of the past are still imbedded in the political structures of many schools and communities. *The New Zealand Curriculum* (MoE, 2007) revisions have offered schools the opportunity to explore more innovative forms of curriculum delivery which are relevant and student-inclusive. By implication, student-centred approaches to curriculum delivery warrant further inquiry. Perhaps the most uncomfortable repercussion for teachers was animosity from colleagues who favoured a more didactic subject-centred approach. “Teaching the democratic way often brings teachers into conflict with people inside and outside the school who would rather have less instead of more democracy (or none at all)” (Beane, 2005, p. 4).Teachers need to possess a solid belief system to defend reforms that question existing practices and systems. Participants suggested they gained strength from working in a research team of like-minded practitioners. Interestingly, students

were also sceptical about reforms until suggestions were pursued and trust was built. Making changes and overcoming challenges was made easier by the PAR process.

Professional Development

Participants suggested the project's design was instrumental in helping them make changes and gain insight into their practice. This has implications for professional development design. The PAR process allowed participants opportunities to pose questions, read relevant literature, implement actions, reflect, and make changes based on new understandings. Participants felt comfortable taking risks with others who were relatively new to teaching and had similar knowledge of curriculum integration. They valued reflection opportunities through focus groups and electronic conversations, and viewed the continuum as a useful tool for reflection and challenge. In addition, participants appreciated the ongoing nature of the project which allowed them to research in small manageable steps while knowing support was readily available from within the team. They made comparisons to one-off courses which they felt had far less impact on practice. The implications are that teachers require time to explore new teaching strategies, opportunities for reflections and debate, and a supportive climate where they feel safe to take risks. This resonates with numerous other discussions which have outlined PAR's capacity for improving and informing practice (Brodhagen, 2001; Dana, & Yendol-Hoppey, 2008; Fullan & Hargreaves, 2008; Kemmis & Wilkinson, 1998; Stringer, 2007).

The participants in this project were already familiar with the theory that underpins various forms of curriculum integration as it was part of their teacher education programme. It is recommended that this kind of pedagogy be included in more pre-service degree programmes so future teachers are exposed to a broader range of pedagogical options.

Social Transformation

The aspiration of critical theory is for social improvement. Although this was only a small project, in one case study the implications extended beyond the individual classroom. A leadership position in student-centred curriculum integration has been created at Mahy School. Mikayla has captured this position and has an opportunity to share and develop her democratic practice in the future. The recent employment of Toni at Mahy School provides further evidence of the school's desire to offer more student-inclusive forms of curriculum delivery. In addition, the school has approached me to support their professional development endeavours.

The participants wish to meet beyond the project in a desire to extend their practice, and have suggested a website be developed that is accessible to all teachers interested in bringing democracy to the classroom. An opportunity for further school improvements may come as a result of publications following this thesis. Perhaps the full benefits of this small project are yet to be ascertained.

Implications for Further Research

Although there are a number of research studies on student-centred curriculum integration there are very few at the primary school level, particularly in Aotearoa New Zealand; consequently, more extensive research is justified. This form of curriculum design is complex. Therefore, it may be useful if studies focused on particular aspects of integration. For example, this study found teacher questioning was an instrumental factor in developing more democratic learning environments. Further inquiry into how questions can empower or disempower learners may therefore be of value within the field. Similarly, co-constructed planning with young children could be researched more extensively. Most importantly, research on learning benefits and the perspectives of primary-school students needs more extensive inquiry. I consider it would be valuable to replicate

this study and take a more longitudinal stance which uses a larger research sample or a whole school situation.

Conclusion

This research project provides insight into the implementation of student-centred curriculum integration in New Zealand primary schools. It is innovative, in that the story is told through the eyes of three teachers who are relatively new to both teaching and student-centred curriculum integration. Most literature assumes teachers have the confidence and competence necessary to collaboratively plan with students. This project did not make this assumption. Therefore it is likely to be of particular value to those new to power-sharing and collaborative planning. While there are a number of advocacy articles which share examples of practice, there are limited research articles at the primary level. Hence, this project makes a valuable contribution to the knowledge available particularly as it includes students as young as five. Despite most research lying at the intermediate or middle school level, this project demonstrates the approach has the potential to be a highly effective form of curriculum design for primary-school students. There was no set recipe for bringing democracy into classrooms, as teacher beliefs, confidence, and school context had a significant part to play. Nevertheless, there were some noteworthy findings. The first involved taking time to establish a democratic learning environment so as to build an initial foundation of trust. By acting on students' suggestions children were encouraged to offer more innovative and ambitious proposals. Initial strategies included: asking questions that empowered rather than disempowered, offering choice, discussing issues, shared decision-making and responsibility, avoiding thinking for students and real-life problem solving. During this time teachers constantly self-questioned reflecting on the justice of their practices. Participants believed initial actions led naturally to student inclusion in planning as pupils were eager to contribute, knowing their contributions would be taken seriously. During initial phases teachers had gained heightened respect for students'

capabilities and consequently felt confident to then include students in planning. The degree of collaborative planning varied with some participants sharing negotiables and non-negotiable tasks as an initial strategy. In this primary school project full collaborative planning was predominantly initiated through teachers' pursuit of spontaneous teaching opportunities and inquiries into issues of immediate student concern. In answer to the research question:

> *What happens in classrooms where teachers are attempting to incorporate the democratic principles and practices inherent in student-centred curriculum integration?*

participants believed students used key competencies that would seldom be addressed using a traditional approach to curriculum delivery. Students were highly engaged as they planned and organised their learning, worked co-operatively, negotiated solutions and compromises, self managed their learning and explored and implemented solutions to class, school, and community issues. This did not occur at the expense of curriculum content knowledge. Learning area knowledge was taught and applied during relevant problem-solving tasks and schools reported that accountability for learning was evident through collaborative wall chart planning sheets and co-constructed assessment.

The findings from this project justify further inquiry into student-centred curriculum integration in primary schools. My hope is that this project provides some insight for those teachers considering this approach to curriculum delivery and that ultimately it makes a small contribution towards redressing power relationships so the voices of our children can be heard.

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Appendices

Appendix A: Focus Group Meeting One Brainstorms

Open discussion of complex issues. Debates, learning to justify opinions. Considering pros and cons of situations. Ability to change mind based on new information. Crossing the line debates. Planning their day or blocks of learning. Choices varied to include activities which consider, multiple intelligences & learning styles. Pictures as prompts for discussions on issues.	*Quality questioning* Increasing student contributions to decisions. – asking more than telling. What could we do? What would you like to find out? How could we find out? Establishing prior knowledge. What do we already know about this issue? How might some of the other problems we have solved help us solve this challenge? Open ended questions. Asking questions the teacher doesn't know the answer to.	*Building Relationships* Creating a positive learning environment. Display active listening skills by acting on suggestions. Asking the student's questions concerning their learning and classroom decisions e.g. How would you like to be included more in your learning? What decisions do I make as your teacher you think we could share? *Pursuing the Teachable Moment* *Dropping planning or changing timetable to follow children's curiosities or interests.*
How might we the Scene for Student-centred Curriculum Integration?		
Teacher responses. I like the way you persisted and tried different things. How did considering everyones opinions help you with your final decision? What strategy did you find was the most effective and why? Is there a similar problem that you have solved that might help in this situation? What skills might we need to help us? This is a great challenge I wonder what we can do? Why did you make that decision?	*Problem solving* May begin with simple word problems. Creating risk taking environment. Multiple solutions /strategies encouraged. Children to pose own problems for investigation. Mistakes viewed as valuable learning experiences. Specific praise for resilience and determination, innovative solutions, self management and reflection on learning. Teacher modelling taking on board challenges, thinking out loud and problem solving.	*Offering choice* Offering choice. Inviting student contribution to the choices presented. Planning their day or learning blocks. Choices varied to include activities which consider, multiple intelligences & learning styles. Must Do and Can Do'. options

Increased involvement in discussion and resolution of social dilemmas. Creating class treaty Having class meetings or resolution circles to discuss social or learning issues. Star of the week selected by children.	*Programme involvement.* Student responsibility for planning daily fitness programme. Timetabling decisions –setting their own timetable for completion of tasks morning blocks/daily timetable (self-management). Teacher withdraws teaching groups. Calling roll and sorting absences.
How might we include students in more classroom decisions?	
Making choice genuine Moving away from teacher choice options to include student created options. Beginning in small steps such as options for independent reading activities or maths.	*Taking time to genuinely consider students views* Asking if students require more time to complete work rather than race to next activity planned. Voting on decisions Asking students how they would like to be included more, and what decisions they could make with their teacher?(also part of setting the scene). Questioning – Have you got any ideas how we could go about this?

Student Respect.	*Assessment involvement*	*Planning displayed on wall*
Open discussion of school selected themes, negotiable and non-negotiables with students, e.g. we have to do this theme and cover these science objectives however we have freedom to explore lots of your ideas and questions as well. What activities or investigations would you like included that would	Involve students in setting assessment criteria. Tease apart learning intentions with students. How might we achieve this and show our understanding to others? Students invite their parents in to the class so they can share their learning. Include more self assessment.	*Viewing planning as flexible so students' ideas can be added.* *Planning is considered a working document that will grow from the students/teachers initial questions and ideas.* *Students will see that their ideas are valued and considered.* *Up for accountability purposes-*

How might we begin to involve students in the planning process?

Consultation.	*Planning starters that include students.*
What are they interested in learning about? What would they like to know about their world? What would they like to know within the predetermined theme? What questions or investigations would they like to pursue?	Immerse students in an activity that generates natural questions that will shape the planning of units. Grouping similar questions to determine potential themes or investigations. School determined themes - Gleaning children's ideas for intended themes prior to going to syndicate planning meetings so children's input can be incorporated into the planning process. Using the teachable moment as a springboard for developing a unit. Ask children what they already know and what they would like to find out **before** teacher planning begins.

What skills, strategies and knowledge might we need?
The ability to listen, consider and act on appropriate suggestions from students. Flexibility - the willingness to drop everything and follow the teachable moment. -the ability to be flexible with timetabling and allow investigations and explorations to continue if needed. Willingness to share decisions with students that traditionally have been made for children. Curriculum knowledge – knowing when to scaffold learning with direct teaching either whole class, or group. Sound pedagogical knowledge – to justify, explain, defend, approach. “It takes guts”. Personal relationship skills with students, parents and other members of staff Questioning skills

Appendix B: Interview Guide Sheets

Interview One Guide Sheet
Topics to be covered by interview

Philosophy of curriculum integration

- Participants' teaching philosophy in particular the role of the teacher
- Influences on development of current teaching philosophy
- Teachers' view on their curriculum responsibilities
- Clarification of current understanding of curriculum integration
- Theoretical basis for understanding.
- Influence of professional development on current understanding and practice
- Participants justification for wishing to adopt student-centred curriculum integration

Current Curriculum Integration Practice

- Forms of integration explored
- To date what decisions, if any, have you involved children with in your classroom programme?
- Involvement of children in the planning process
- Adaptations they perceive may be required with younger children

Challenges to Successful Implementation

- Perceived challenges/barriers to the implementation of student-centred curriculum integration
- Overcoming barriers
- What supports do you think teachers new to the approach may require

Future Professional Goals in terms of Student-centred curriculum integration.

- Discussion on curriculum integration continuums
- Identifying of current place on continuum and where they wish to be
- Professional goals in this area.
- Anticipated student involvement in the future

Interview Two Guide Sheet
Topics to be covered by interview

Philosophy

- Influence researching student-centred curriculum integration has had on practice
- Current curriculum delivery
- Match between philosophy and practice
- Moments of enlightenment throughout the project

Challenges of implementation

- Challenges of exploring student-centred curriculum integration
- Strategies for overcoming challenges

Benefits of implementation

- Benefits of student-centred curriculum integration
- Needs of 21 century learners

Research context

- Research context benefits and challenges
- Effects of research on school

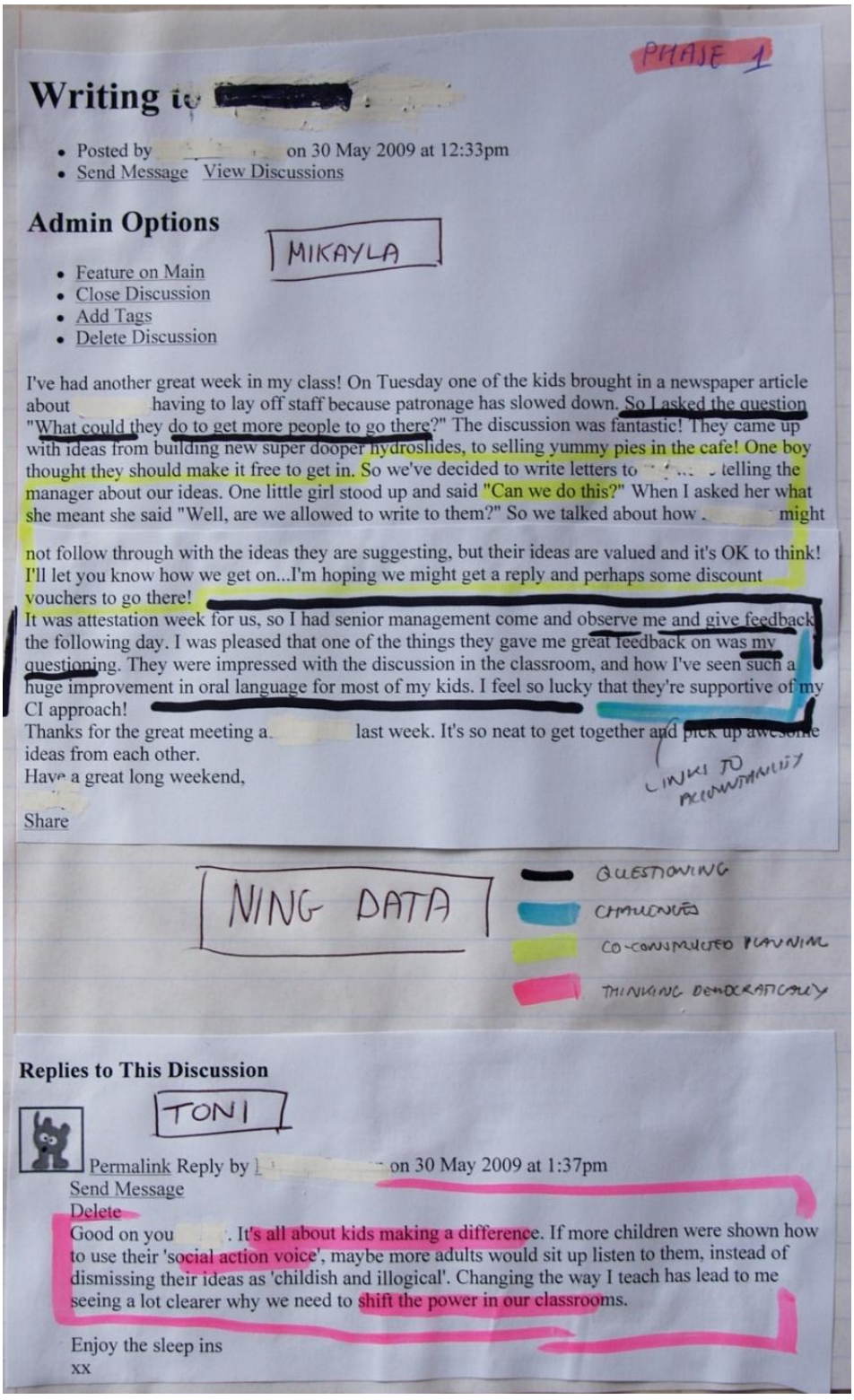
The future

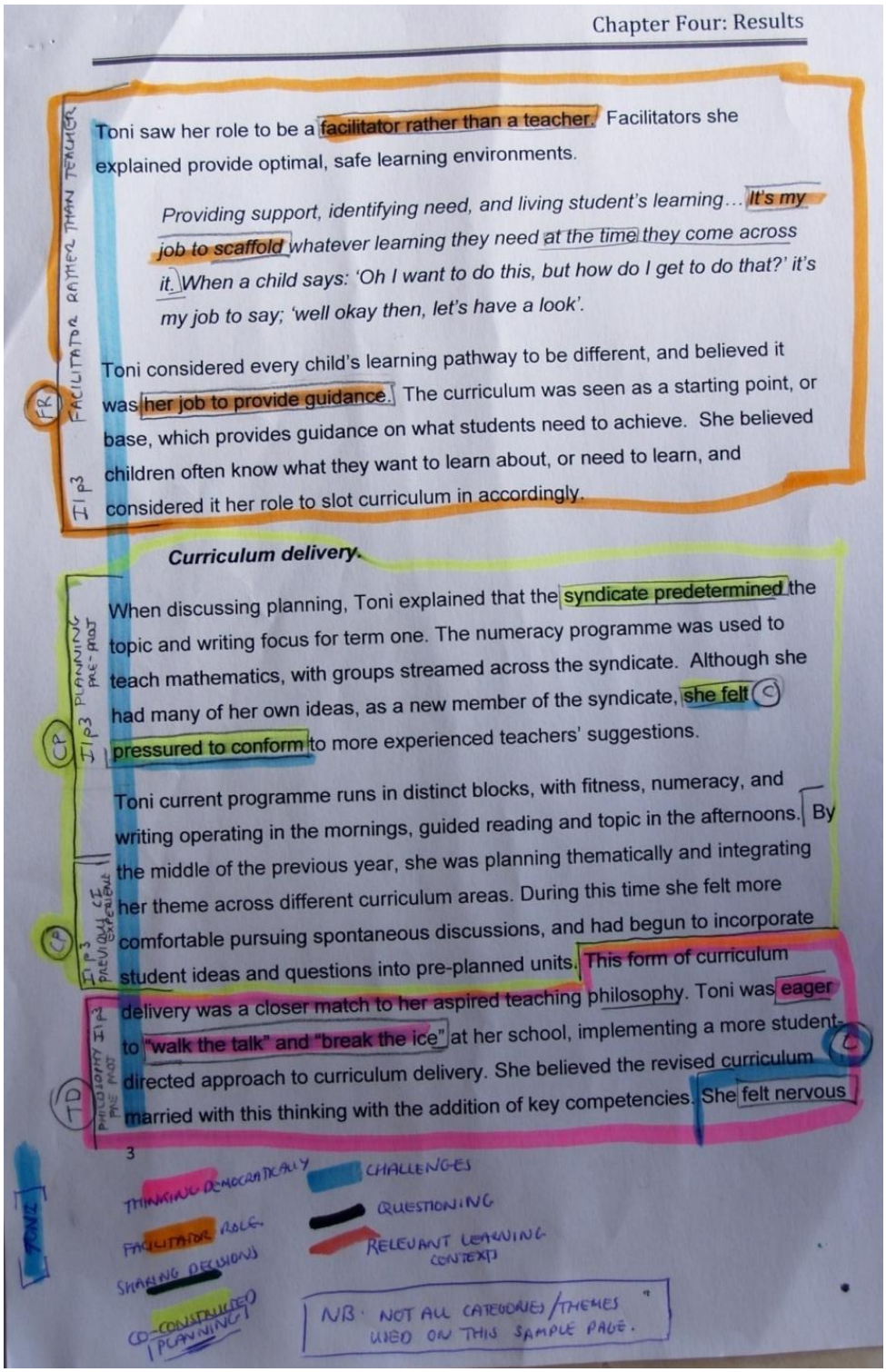
- Future changes in practice
- Advice to those wishing to explore approach
- Future research areas.

Appendix C: Central Themes Identified by Participants

Toni	**Mikayla**	**Sasha**
Deeper levels of questioning used	Quality questioning – justification of opinions and answers	Students asking more questions
Power-sharing	Democratic practices	Power-sharing
Decision making with students	Listening and acting on ideas.	Listening to student ideas and taking action
		Recognition of the foundations of SCCI - democracy
Co-constructed planning-curriculum shared	Co-constructed planning	Co-construction – options &
Teachable moments	Following teachable moments	
Relevant teaching contexts		Relevant learning contexts
	Student choice offered.	Choices for student learning
Challenges		Fighting for democracy

Appendix D: Data Coding Process Sheets





Chapter Four: Results

Toni saw her role to be a facilitator rather than a teacher. Facilitators she explained provide optimal, safe learning environments.

> *Providing support, identifying need, and living student's learning… It's my job to scaffold whatever learning they need at the time they come across it. When a child says: 'Oh I want to do this, but how do I get to do that?' it's my job to say; 'well okay then, let's have a look'.*

Toni considered every child's learning pathway to be different, and believed it was her job to provide guidance. The curriculum was seen as a starting point, or base, which provides guidance on what students need to achieve. She believed children often know what they want to learn about, or need to learn, and considered it her role to slot curriculum in accordingly.

Curriculum delivery.

When discussing planning, Toni explained that the syndicate predetermined the topic and writing focus for term one. The numeracy programme was used to teach mathematics, with groups streamed across the syndicate. Although she had many of her own ideas, as a new member of the syndicate, she felt pressured to conform to more experienced teachers' suggestions.

Toni current programme runs in distinct blocks, with fitness, numeracy, and writing operating in the mornings, guided reading and topic in the afternoons. By the middle of the previous year, she was planning thematically and integrating her theme across different curriculum areas. During this time she felt more comfortable pursuing spontaneous discussions, and had begun to incorporate student ideas and questions into pre-planned units. This form of curriculum delivery was a closer match to her aspired teaching philosophy. Toni was eager to "walk the talk" and "break the ice" at her school, implementing a more student-directed approach to curriculum delivery. She believed the revised curriculum married with this thinking with the addition of key competencies. She felt nervous

3

Appendix E: Principal's Information Letter and Consent Form

School of Education
The University of Waikato
Private Bag 12027
Tauranga, New Zealand

Phone +64 7 577 5331
www.waikato.ac.nz

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

XXXXXXXXXX
XXXXXXXXXX
XXXXXXXX

Date

Re: Research project: Implementing student-centred curriculum integration in New Zealand primary schools.

Dear XXXXXXX

I am writing to formally invite your school to become part of the research project we discussed. As you are aware I am in the preliminary stages of study towards a Master of Education at the University of Waikato and wish to undertake an action based research project in your school. This project examines the implementation of student-centred curriculum integration in the primary school setting. The research would focus on how teachers can set the scene for beginning this type of integrative teaching, and explore how student contribution to the curriculum planning process might be increased. This research has the approval of The University of Waikato Ethics Committee and will be consistent with the aims of *The New Zealand Curriculum* (Ministry of Education, 2007).

This research will be valuable as it will inform national and international research on the implementation of student-centred curriculum integration in the primary school setting. It will inform your school and others about alternative forms of curriculum implementation that marry closely with the pedagogical aspirations inherent in *The New Zealand Curriculum*. Having a staff member who has participated in this project is likely to be beneficial as it will provide expertise in the implementation of student-centred curriculum integration. In order for me to conduct this project I require your support and approval.

The project will involve working with one of your teachers who has successfully completed the Curriculum Integration paper (TEPS 323) at The University of Waikato at Tauranga. The rationale is that they have an understanding of the principles and practices of this approach providing a foundation for discussion and the exploration of new implementation strategies. As part of the action based research project, the teacher would be involved in: two interviews, contributing to informal professional discussions with the researcher and other participants (face to face and online), trialling democratic teaching strategies, observations of practice, and attendance at 2-3 focus

group meetings. It is anticipated that the school will support this research by providing some in school time for teacher participants to attend focus group meetings. The research would take place from March 2009 through to November 2009.

Interviews, discussion, and observations will be audio-recorded and transcripts will be provided for participants to check and edit if required. All data will be treated in the strictest confidence and stored in a secure environment. Every effort will be made to ensure anonymity of participants. Schools and teachers will be referred to throughout the research using pseudonyms. All participants have the right to withdraw from the research at any time prior to the analysis of data and to decline to answer questions.

In addition to being used for the purposes of my masters thesis, this research will be published in academic journal articles and may be included in conference presentations.

I look forward to the opportunity to work in your school. If you have any questions please do not hesitate to contact me. My contact details are: Email: cbrough@waikato.ac.nz or Phone: 5775333, mobile 0212320448. If you have concerns that you would prefer to discuss with someone other than myself, please contact Dr Nigel Calder. Email: ncalder@waikato.ac.nz or Phone: 5775308.

Should you choose to participate in this study I have attached an informed consent form which I would be most grateful if you could complete and return in the enclosed stamped addressed envelope.

Thank you for your anticipated support.

Yours sincerely,

Chris Brough
Senior Tutor
University of Waikato at Tauranga
Ph 07 5775333
cbrough@waikato.ac.nz

CONSENT FORM FOR PRINCIPAL

I _____ give consent for _____ school to participate in the research project on student-centred curriculum integration. The teacher participating in this project is XXXXXXXXX.

I understand that both the school and the teacher involved in the research will be referred to using pseudonyms. I am aware that the school and the teacher have the right to withdraw from the research prior to the analysis of the data and to decline to answer any questions. Should withdrawal occur I understand that the data that has already been shared and approved will be retained. I am aware that the researcher may use the research material in educational journal publications and conference presentations.

Should there be any concerns. I understand that in the first instance I am able to discuss these with the researcher and if I have concerns that are not resolved I am able to contact the main research supervisor Dr Nigel Calder, email: ncalder@waikato.school.nz or phone: 5775308.

Signed: _____

Date: _____

Name: _____

Address: _____

_____

_____

Email: _____

Telephone: _____

Appendix F: Teacher Participant Information letter and Consent Form

School of Education
The University of Waikato
Private Bag 12027
Tauranga, New Zealand

Phone +64 7 577 5331
www.waikato.ac.nz

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

XXXXXXXXXXXXX
XXXXXXXXXXXXXXX
XXXXXXXXXX

DATE

Re: Research project: Implementing student-centred curriculum integration in New Zealand primary schools.

Dear XXXXXX

I am writing to formally invite you to become part of the research project we discussed. As you are aware I am in the preliminary stages of study towards a Master of Education at the University of Waikato and wish to undertake an action based research project with teachers who have successfully completed the curriculum integration paper, TEPS 323 TGA. The rationale behind this selection is that you all have an understanding of the principles and practices of this approach providing a foundation for discussion and exploration. This project intends to examine the implementation of student-centred curriculum integration in the primary school setting. It will focus on how teachers can set the scene for beginning this type of integrative teaching, and explore how student contribution to the curriculum planning process might be increased. This research has the approval of The University of Waikato Ethics Committee and will be consistent with the aims of *The New Zealand Curriculum* (Ministry of Education, 2007).

This research will be valuable as it will inform national and international research on the implementation of student-centred curriculum integration in the primary school setting. It will inform your school and others about alternative forms of curriculum implementation that marry closely with the pedagogical aspirations inherent in *The New Zealand Curriculum*. As a participant in this action based project you are likely to benefit from more extensive knowledge on the implementation of student-centred curriculum integration. This will likely broaden your practice, benefit learners, extend your current pedagogical knowledge, and offer you a potential area of professional expertise.

As a participant in this action based research project I would be asking you to: participate in two interviews, contribute to informal professional discussions with the researcher and other participants (face to face and online), attend 2-3 focus group meetings, trial democratic teaching strategies, and participate in 2-3 classroom observations. The research would take place from March 2009 through to November 2009.

Interviews, discussion and observations will be audio-recorded and transcripts will be provided for you to check and edit if required. Audio-recordings of classroom observations will only be used with you, for the purposes of discussion and reflection on classroom practice. All data will be treated in the strictest confidence and stored in a secure environment. Every effort will be made to ensure your anonymity. Schools and participants will be referred to throughout the research using pseudonyms. You will have the right to withdraw from the research at any time prior to the analysis of the data and to decline to answer questions.

I look forward to the opportunity to work with you again. If you have any questions please do not hesitate to contact me. My contact details are: Email, cbrough@waikato.ac.nz or Phone: 5775333, mobile 0212320448. If you have concerns that you would prefer to discuss with someone other than myself, please contact Dr Nigel Calder. Email: ncalder@waikato.ac.nz or Phone: 5775308.

Should you choose to participate in this study I have attached an informed research consent form which I would be most grateful if you could complete and return in the enclosed stamped addressed envelope.

Thank you for your anticipated support.

Yours sincerely,

Chris Brough
Senior Tutor
University of Waikato at Tauranga
Ph 07 5775333
cbrough@waikato.ac.nz

TEACHER PARTICIPANT CONSENT FORM

Research project: Implementing student-centred curriculum integration in New Zealand primary schools.

I consent to being a participant in the action based research project on student-centred curriculum integration and understand that this will involve me:

- Participating in two interviews of approximately 1 hour in duration
- Attending 2-3 focus group meetings with other participants engaged in the research
- Trialling various democratic teaching strategies within my classroom programme
- Being observed on 2-3 occasions for the purposes of discussion and reflection on classroom practice.
- Contributing to informal discussions with the researcher and other participants either on a face to face basis or electronically

I understand that interviews, discussion and observations outlined above will be audio-recorded and transcripts will be provided for me to check and edit if required. I have been informed that data will be treated in the strictest confidence and stored in a secure environment.

I understand that both my school and I will be referred to using pseudonyms.
I am aware of my right to withdraw from the research at any time prior to the analysis of the data and to decline from answering questions. Should withdrawal occur I know the data that has already been shared and approved by me will be retained in the study. In addition to being used for the purposes of a masters thesis I am aware that this research project will be published in academic journal articles and may be presented at conferences.

Should there be any concerns. I understand that in the first instance I am able to discuss these with the researcher and if I have concerns that are not resolved I am able to contact the main research supervisor Dr Nigel Calder, email: ncalder@waikato.school.nz or phone: 5775308.

Signed: _____ Phone: _____

Name: _____

Address: _____

_____

Email: _____ Date: _____

Appendix G: Parent/caregiver Information Letter and Consent Form

School of Education
The University of Waikato
Private Bag 12027
Tauranga, New Zealand

Phone +64 7 577 5331
www.waikato.ac.nz

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

XXXXXXXXXXX
XXXXXXXXX
XXXXXXXX

6 April 2009

Dear Parents and Caregivers,

I am involved in research at the University of Waikato at Tauranga which examines increasing student participation in their learning. This form of curriculum delivery is known as student-centred curriculum integration it involves teachers inviting student input when they are planning units of learning. Research has shown that this approach enhances learner motivation, encourages higher levels of thinking, and increases learning. However, more research is needed in the New Zealand primary school context. The school principal and your child's teacher have agreed to be part of this research project, but I also need your approval.

As part of the research project, on 2 -3 different occasions, I will be observing your child's teacher taking lessons that involve students contributing to the planning of their learning. These lessons will be audio-recorded and notes will be taken. These observations will only be used for discussion with the teacher as they reflect on their classroom practice. During the lessons any work that is produced will be used as part of the research project. This is likely to include whole class brainstorms and possibly some samples of children's work. During the lesson some photographs may be taken, in profile, so individual students cannot be identified. The focus of this project is not individual children but the planning process itself. The name of the school and all individuals will remain confidential with pseudonyms used throughout the project. Your child has the right to withdraw from the research at any stage prior to the analysis of data. However, as a researcher I will still be present in the classroom. I will not take notes on, or collect any work from your child if they are not part of the study. Should you provide consent for your child to participate I will then talk to your child about the project and ask them to sign a form allowing me to take copies of work samples and use their comments from discussions.

I will be using this research for my Masters thesis and it is likely that it will also be used for some academic articles and conferences. This research will contribute to national and international research on student-centred curriculum integration and is in keeping with the goals of *The New Zealand Curriculum*.

If you have any questions you can contact me, or the principal, as appropriate. My contact details are: Email, cbrough@waikato.ac.nz or phone: 5775333. If you have concerns that you would prefer to discuss with someone other than myself, please contact my supervisor Dr Nigel Calder. Email: ncalder@waikato.ac.nz or phone: 5775308.

I feel that this will be a valuable experience for the children in this class. Could you please discuss the project with your child and check that they are happy to be involved.

It would be appreciated if you could complete the consent form below and return it to the class teacher tomorrow (7 April).
Yours sincerely

Chris Brough
Senior Tutor
University of Waikato at Tauranga
Ph 07 5775333
cbrough@waikato.ac.nz

After being informed about what is involved in the research project – "Implementing student-centred curriculum integration in New Zealand primary schools", I give consent for my child to participate–

I give consent on the understanding that:

- My child's name and identity will remain confidential at all times.
- My child's profile photograph, comments from discussions and copies of work may be used as part of this project.
- Classroom field notes and audio-recordings will be taken for the sole purpose of teacher discussion and reflection on classroom practice.
- My child may withdraw from the study at any stage prior to the analysis of data and no further information will be collected from them.
- I am aware that the researcher will discuss what is involved in the project with my child and ask them if they wish to sign a form to indicate that comments from discussions and copies of work samples can be used.

Childs name: _____

Signed: _____

Date: _____

Name: _____

Address: _____

_____

Email: _____

Telephone: _____

Appendix H: Student Consent Form

Implementing student-centred curriculum integration in New Zealand primary schools.

I am happy for Chris Brough to:

Use my comments from discussions. ☺ ☹

Take copies of my work. ☺ ☹

I understand that if I don't want my work copied or my comments written down I can say so and they will not be used

☐ (Tick)

Childs Name Date:

Signature_____

Appendix I: Planning Documentation for "The Classroom I'd Like."

Initial Scenario: Room [redacted] students were asked these questons:

How can we bee more involved in our learning?

What things can we do that our teacher does now?

How can we make our classroom environment better to us to learn in?

CONCLUSION MADE BY ALL: *The classroom is too small to learn the way we want to lean.*

HOW CAN WE SOLVE THIS PROBLEM?

Key Competencies

- Thinking
- Communicating
- Managing self
- Team players
- Participating and Contributing

The Classroom I'd Like!

Curriculum Coverage

- Mathematics
- Science
- Technology
- English
- Health & Physical Wellbeing
- The Arts

Enduring Understandings

* ***To recognise that to be successful in a goal, they need to go through a process and the skills that they have acquired during this process can be transferred to across other problem solving situations they may encounter in their lives:***

Build a building/alteration
Design a building/alteration
Present an argument
Write and explanation
Write a formal letter
Use correct units of measurement in specific situations
Present and speak articulately to an audience.
Calculating
Fundraising??
Budgeting

Assessment:

Ability to increasingly understand the process and role of negociated and co-constructed planning and assessment in their learning.

Obvious pride and willingness of ownership in learning.

Curriculum focuses assessed as taught according to school parameters.

Class, group and peer discussions

Share knowledge and understanding with others in a variety of mediums and to specific audiences.

Plus other contexts that arise from experiences and learning on a daily basis that fits into this idea.

Level Three Mathematics and Statistics

N.B : Appendix I provides examples of two curriculum area planning sheets although six were covered within this unit.

Level Three English

Listening, Reading, and Viewing

Processes and strategies

Students will:

- Integrate sources of information, processes, and strategies with developing confidence to identify, form, and express ideas.

INDICATORS:

- selects and reads texts for enjoyment and personal fulfilment;
- recognises and understands the connections between oral, written, and visual language;
- integrates sources of information and prior knowledge with developing confidence to make sense of increasingly varied and complex texts;
- selects and uses a range of processing and comprehension strategies with growing understanding and confidence;
- thinks critically about texts with developing confidence;
- monitors, self-evaluates, and describes progress with growing confidence.

By using these processes and strategies when listening, reading, or viewing, students will:

Purposes and audiences

- Show a developing understanding of how texts are shaped for different purposes and audiences.

INDICATORS:

- recognises and understands how texts are constructed for a range of purposes, audiences, and situations; C
- identifies particular points of view and begins to recognise that texts can position a reader;
- evaluates the reliability and usefulness of texts with increasing confidence.

Ideas

- Show a developing understanding of ideas within, across, and beyond texts.

INDICATORS:

- uses their personal experience and world and literacy knowledge confidently to make meaning from texts;
- makes meaning of increasingly complex texts by identifying main and subsidiary ideas in them;
- starts to make connections by thinking about underlying ideas in and between texts;
- recognises that there may be more than one reading available within a text;
- makes and supports inferences from texts with increasing independence.

Language features

- Show a developing understanding of how language features are used for effect within and across texts.

INDICATORS:

- identifies oral, written, and visual language features used in texts and recognises their effects; M2 Beginning level.
- uses an increasing vocabulary to make meaning;
- shows an increasing knowledge of how a range of text conventions can be used appropriately;
- knows that authors have different voices and styles and can identify some of these differences.

Structure

- Show a developing understanding of text structures.

INDICATORS:

- understands that the order and organisation of words, sentences, paragraphs, and images contribute to and affect text meaning;
- identifies a range of text forms and recognises some of their characteristics and conventions. C Planning

Speaking, Writing, and Presenting

Processes and strategies

Students will:

- Integrate sources of information, processes, and strategies with developing confidence to identify, form, and express ideas.

INDICATORS:

- uses a developing understanding of the connections between oral, written, and visual language when creating texts;
- creates a range of texts by integrating sources of information and processing strategies with developing confidence;
- seeks feedback and makes changes to texts to improve clarity, meaning, and effect;
- is reflective about the production of own texts; monitors and self-evaluates progress; articulating learning with growing confidence.

By using these processes and strategies when speaking, writing, or presenting, students will:

Purposes and audiences

- Show a developing understanding of how to shape texts for different purposes and audiences. MF- level 3- Determination - Achievement

INDICATORS:

- constructs texts that show a growing awareness of purpose and audience through careful choice of content, language and text form;
- conveys and sustains personal voice where appropriate. MF Planning Read Safety Unit.

Ideas

- Select, form, and communicate ideas on a range of topics.

INDICATORS:

- forms and expresses ideas and information with increased clarity, drawing on a range of sources;
- adds or changes details and comments to support ideas, showing some selectivity in the process;
- ideas suggest awareness of a range of dimensions or viewpoints.

Language features

- Use language features appropriately, showing a developing understanding of their effects.

INDICATORS:

- uses oral, written, and visual language features to create meaning and effect and engage interest;
- uses a range of vocabulary to communicate meaning;
- demonstrates good understanding of all basic spelling patterns and sounds in written English;
- uses an increasing range of strategies to self-monitor and self-correct spelling;
- writes legibly, fluently, and with ease when creating texts;
- uses a range of text conventions, including most grammatical conventions, appropriately and with increasing accuracy.

Structure

- Organise texts, using a range of appropriate structures.

INDICATORS:

- organises written ideas into paragraphs with increasing confidence;
- organises and sequences ideas and information with increasing confidence;
- uses a variety of sentence structures, beginnings, and lengths.

May Explanation Writing: The Classroom I'd Like - taken from their dreaming of the 'dream class'.

June Letter Writing - Dear Mum and Dad - asking for donations of things to make our class better and why we need them for our learning. MF

June The Mayor Council does care Written - legal writing C

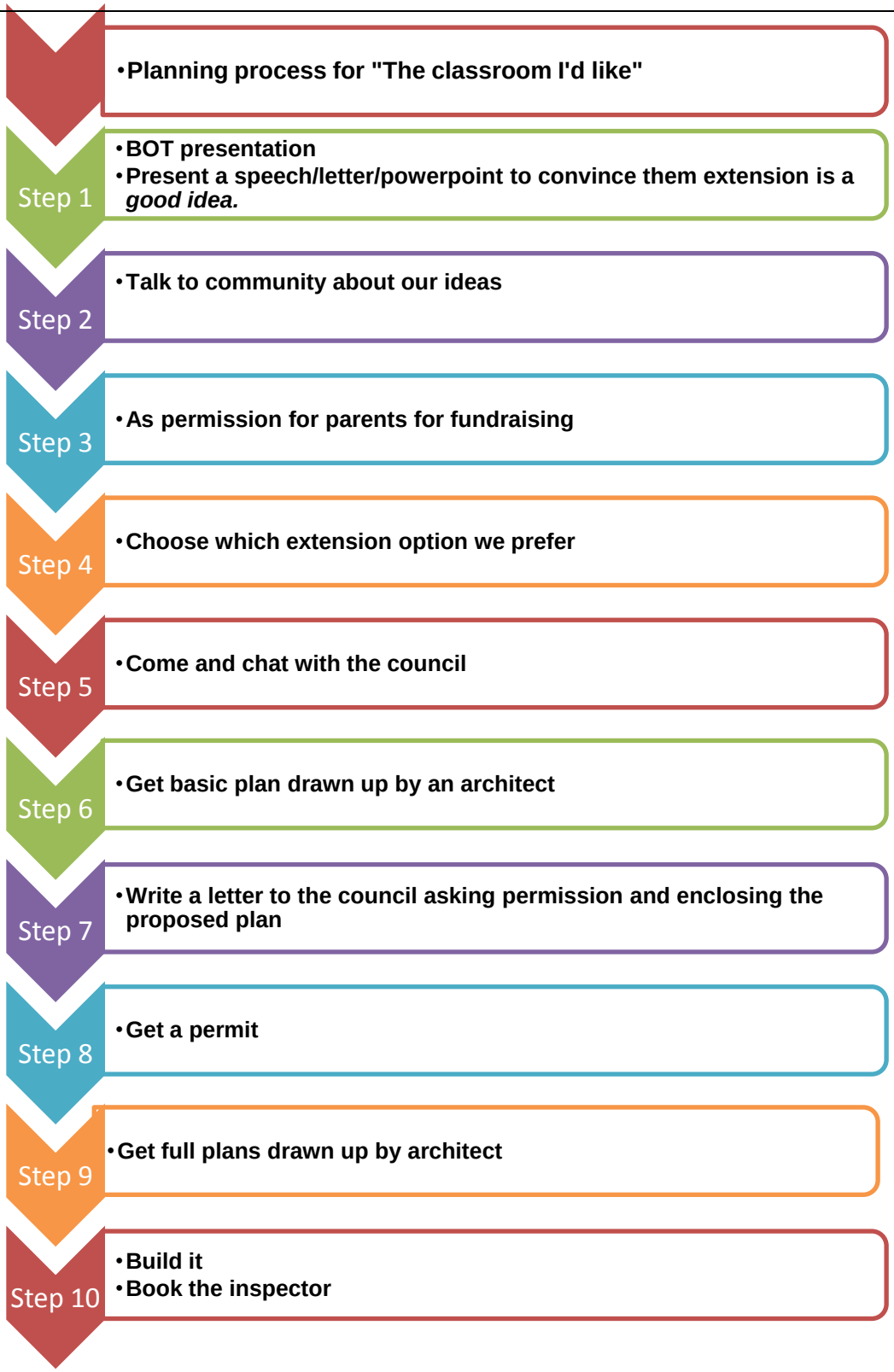
Aug. Letter writing - to Miss Mencigot MF Agreement Plus to convince her to allow an overnight camp. C

Sept/Oct Road Safety - wrap up unit MF

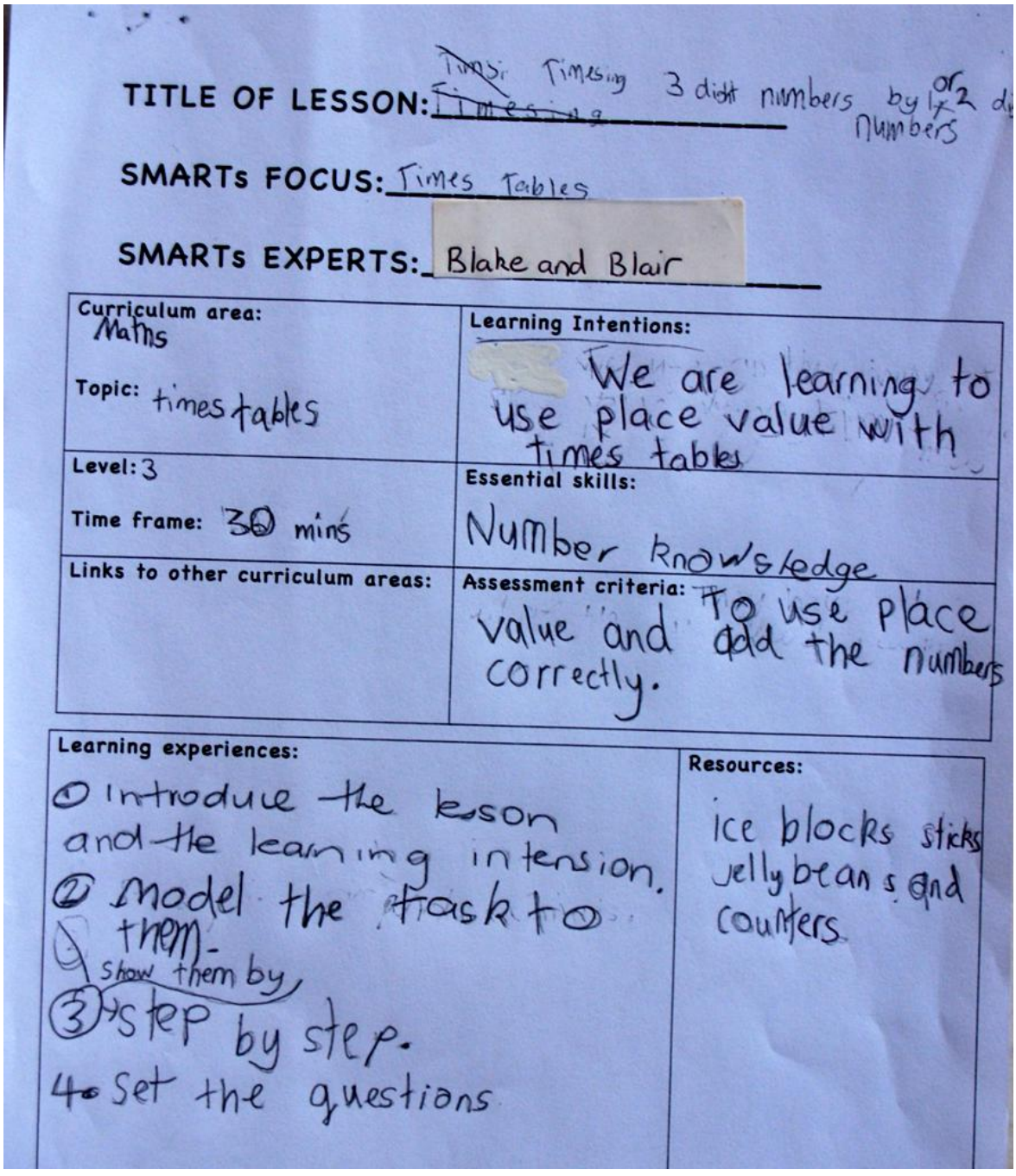
Reflective writing and Assessment for all areas of planning, writing and

N.B : Appendix I provides examples of two curriculum area planning sheets although six were covered within this unit.

Appendix J: Building Consent Flow Chart Made Following City Council's Visit



Appendix K: Student's Planning and Assessment of "Expert Lesson"



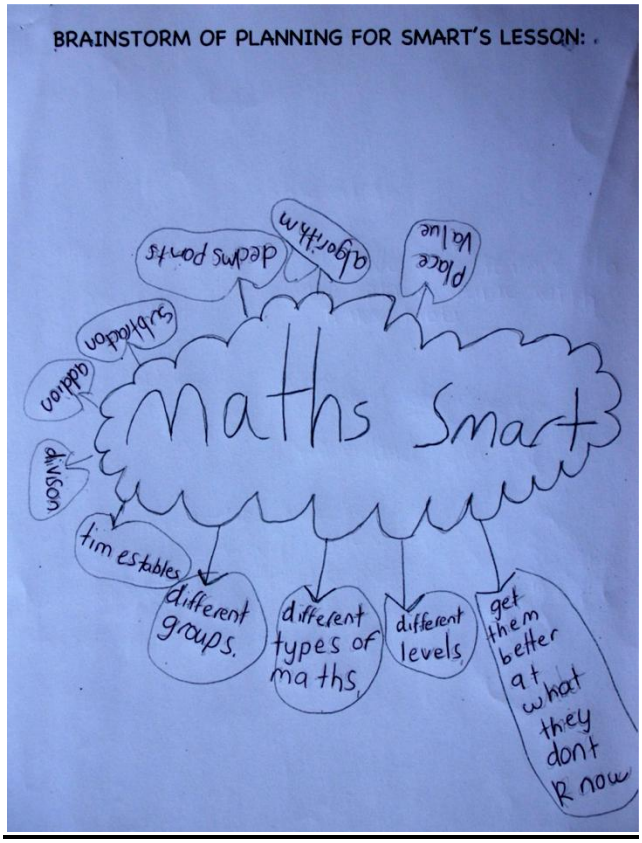
TITLE OF LESSON: ~~Timesing~~ Timesing 3 digit numbers by 1 or 2 digit numbers

SMARTs FOCUS: Times Tables

SMARTs EXPERTS: Blake and Blair

Curriculum area: Maths Topic: times tables	Learning Intentions: We are learning to use place value with times tables
Level: 3 Time frame: 30 mins	Essential skills: Number knowledge
Links to other curriculum areas:	Assessment criteria: To use place value and add the numbers correctly.

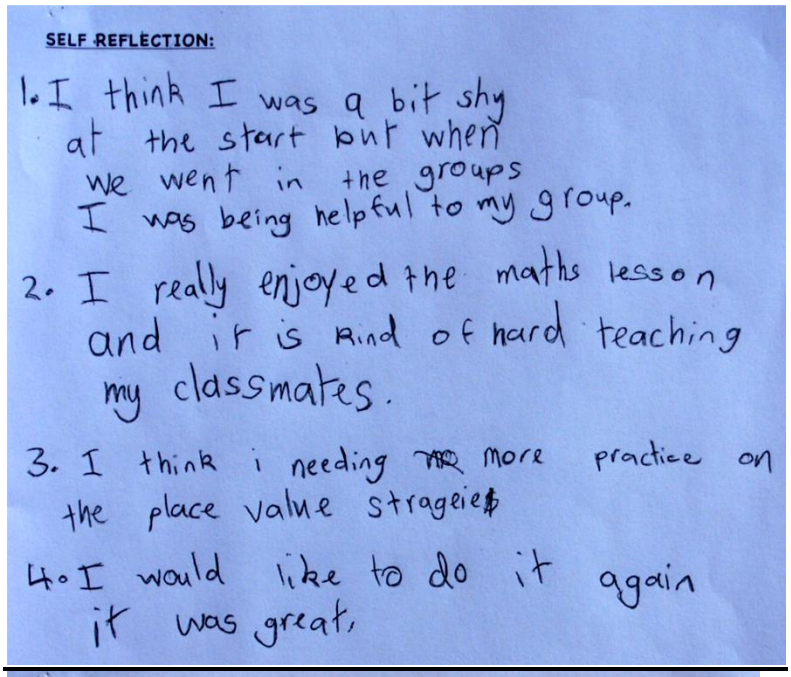
Learning experiences:	Resources:
① Introduce the lesson and the learning intension. ② Model the task to them. ③ show them by step by step. ④ Set the questions	ice blocks sticks jelly beans and counters



1. 20x36=72
2. 30x54=1620
3. 60x69=4140
4. 50x35=1750
5. 80x36=2880

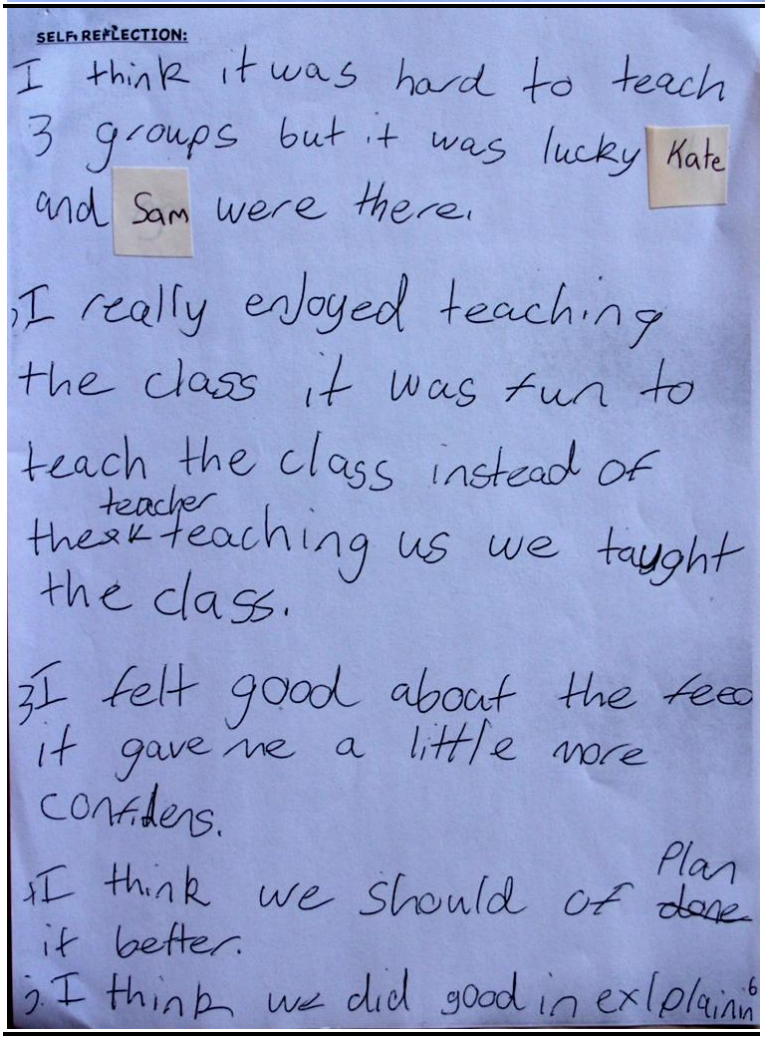
20x450=9000
36x840=15120
22x726=15972
56x292=16352
30x395=11850
29x415=12035
54x304=16416

50x609=30450
80x798=63840
60x906=543
60x849=
30x955=
90x654=
90x634=
50x925=



SELF REFLECTION:

1. I think I was a bit shy at the start but when we went in the groups I was being helpful to my group.
2. I really enjoyed the maths lesson and it is kind of hard teaching my classmates.
3. I think i needing ~~no~~ more practice on the place value strageies
4. I would like to do it again it was great.



SELF REFLECTION:

I think it was hard to teach 3 groups but it was lucky Kate and Sam were there.

I really enjoyed teaching the class it was fun to teach the class instead of the~~s~~ teacher teaching us we taught the class.

I felt good about the ~~feed~~ it gave me a little more confidens.

I think we should of Plan ~~done~~ it better.

I think we did good in explaining

Tuesday 30th June 2009

LI: use place value with times tables. **e.g. 36 x 420 =**

Time Frame: 30 mins
Actual: 60 mins

Stars:

- ✓ LI displayed well
- ✓ Good warm up to determine ability levels
- ✓ Roaming to help and check work
- ✓ Class engaged in work
- ✓ Stopped to check progress
- ✓ Invited the first to get it correct to share with others
- ✓ Broke it down and showed them the steps to work it out
- ✓ Great differentiation (ability grouping from the warm-up task) of follow up tasks - 1st group working with 2 digits (20X36); 2nd group working with 2 and 3 digits to 500 (20 x 236); and 3rd group working with 2 and 3 digits over 500 (36 x 840). Used [redacted] (1st to get it right to take the 3rd group)
- ✓ You remembered to go over the LI and the success criteria and got them to write it in their books.

Wishes:

- ✓ Wow, you've nearly got it - have another look and try again (positive reinforcement)
- ✓ Maybe show the place value columns on the board for those that had difficulty
- ✓ Need to remember to keep refocusing the class

EXPERTS FEEDBACK/FEED FORWARD:

Gave positive feed back to those who your saw working well in the groups and those who followed instructions

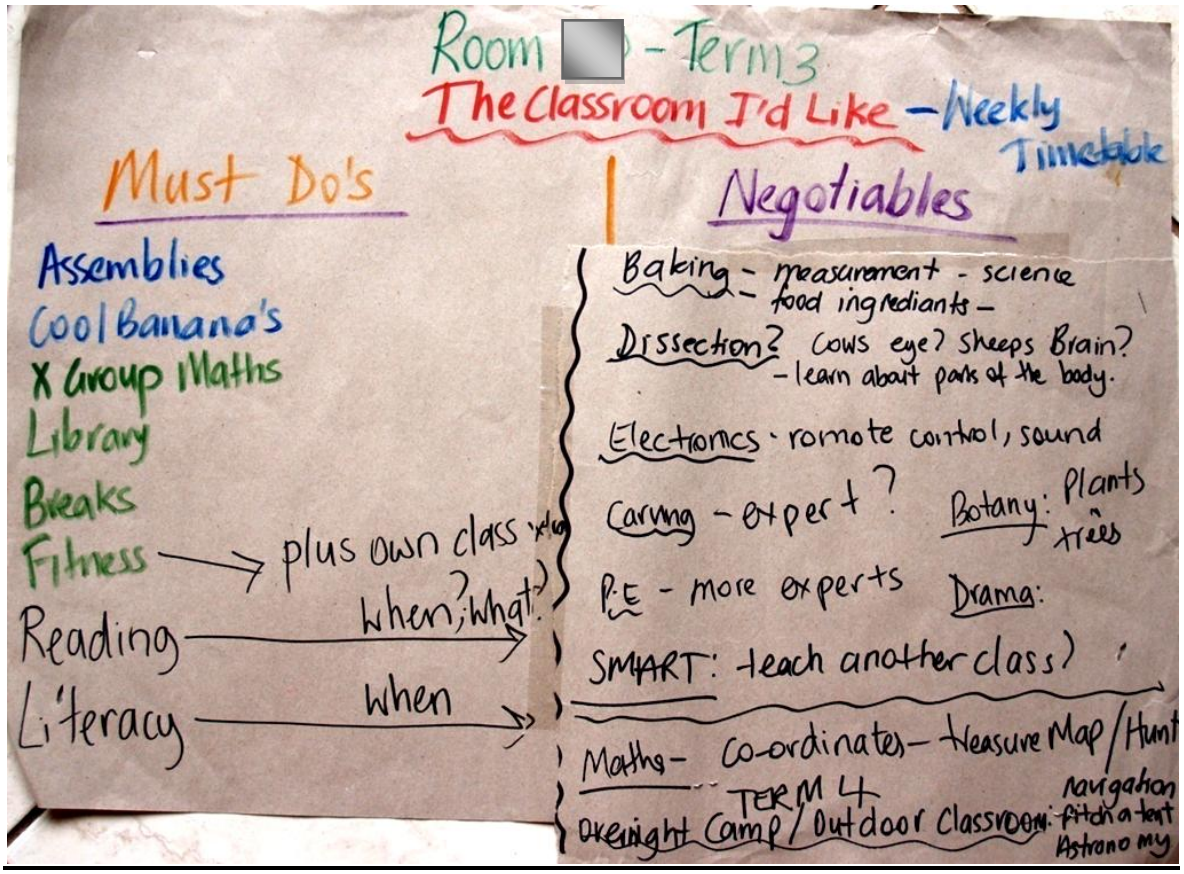
CLASS FEEDBACK:

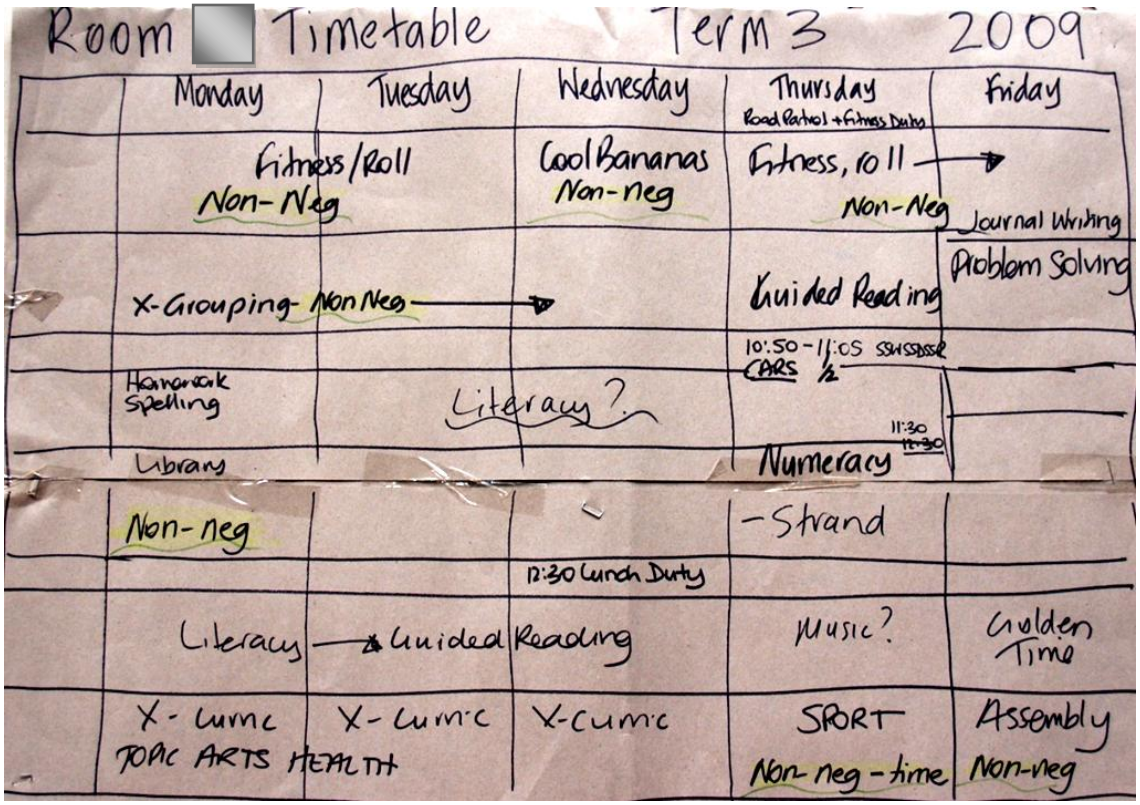
I thought the way you explained it and showed us worked well
I liked how [redacted] showed us the way to set it out
I liked how [redacted] explained it and helped us
[redacted] showed me how he worked it out and it helped me
[redacted] encouraged me to go back and try again
[redacted] helped me work it out

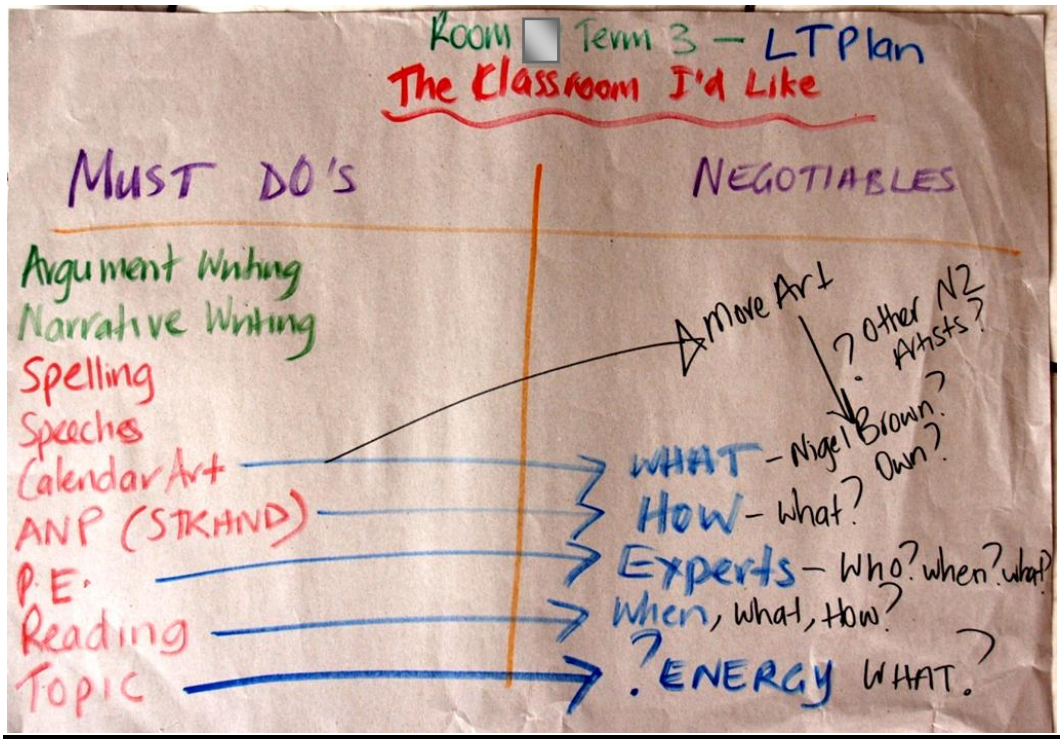
CLASS FEEDFORWARD:

Plan better - have it worked out before you teach it
Have worked out the answers before you taught

Appendix L: Term 3 Collaborative Planning






Room ☐ Term 3 – LTPlan
The Classroom I'd Like
MUST DO's
NEGOTIABLES
Argument Writing
Narrative Writing
Spelling
Speeches
Calendar Art
ANP (STKHND)
P.E.
Reading
Topic
Move Art
? other NZ Artists?
Nigel Brown?
Own?
WHAT – Nigel Brown? Own?
HOW – what?
Experts – Who? when? what?
When, what, how?
? ENERGY WHAT.?

Appendix M: Student Road Safety Rap

Mini Patrollers Rap

What's up mini patrollers,
have you been patrolling,
the 'R' the 'O' the 'A' the 'D' the road.

You walk up to the crossing,
take 2 steps back,
look both ways before you get mowed.

What's up mini patrollers,
have you been patrolling,
the 'R' the 'O' the 'A' the 'D' the road.

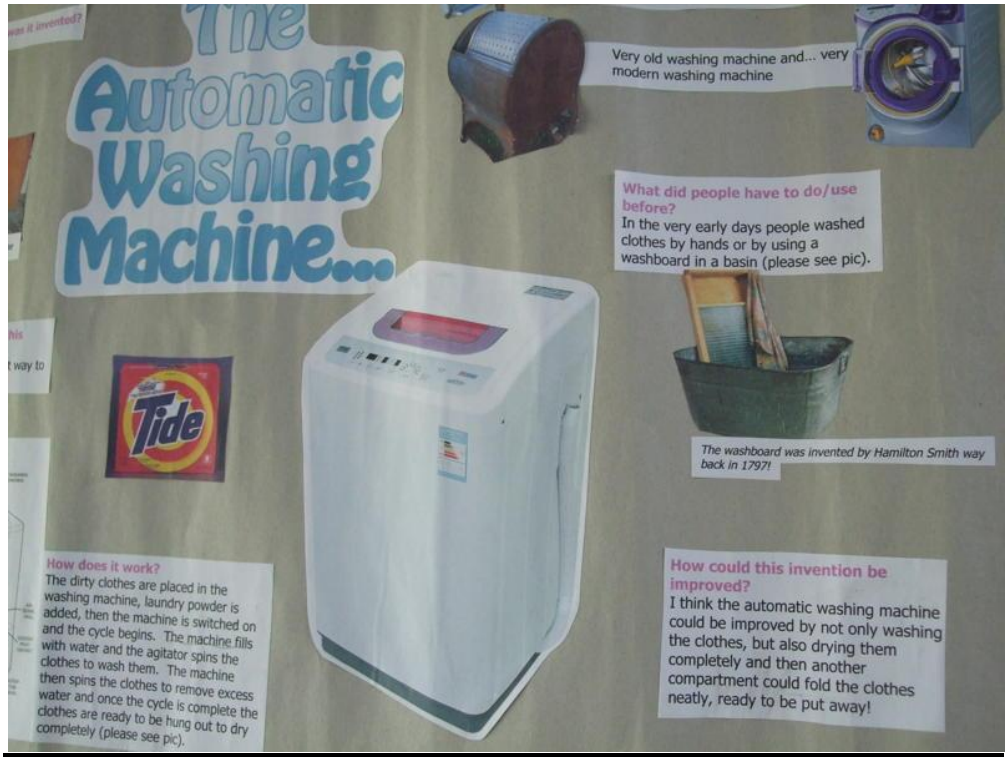
You walk up to the traffic lights,
push the button,
wait for the green man to beep beep beep.

What's up mini patrollers,
have you been patrolling,
the 'R' the 'O' the 'A' the 'D' the road.

You walk up to the crossing,
take 2 steps back,
look both ways before you get mowed.

Yo what's up mini patrollers,
have you been patrolling,
the 'R' the 'O' the 'A' the 'D' the road.

Appendix N: Inventions, Unit Posters and Collaboratively Constructed Assessment



INVENTIONS POSTER

Task…	**Poor**	**Developing**	**Excellent**
Task complete with all questions answered			
Questions are answered in full sentences			
Includes diagrams/pictures			
Overall presentation no spelling errors / tidy writing			
Clear heading with full use of paper			

Appendix O: Collaboratively-Constructed Floating and Sinking Assessment

RAFTS AFLOAT – WAS I SUCCESSFUL?

☐ Does the raft float?

☐ Does the raft have a flat surface area?

☐ Is the deck of the raft less than or equal to A3?

☐ Can the raft hold a weight of 1kg?

☐ Is your model raft made to your final plan?

☐ Do you need to alter your plan and rebuild your raft?

Comments:

_____

_____

_____

_____

_____

_____

Appendix P: Literacy Activity and Assessment Criteria

Business card criteria

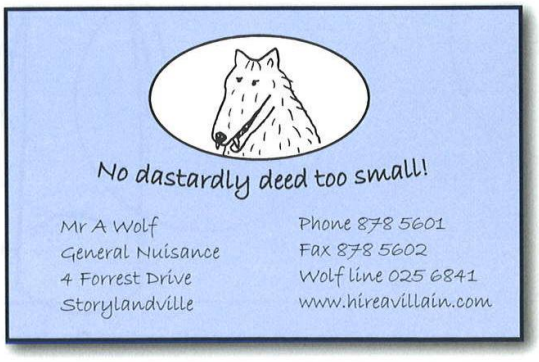
- Job information advising characteristics
- Picture/logo
- Contact details
- Colour
- Clear details – uncluttered

3 Business card

STUDENT OUTCOMES

- **Introducing visual and language features of a business card**
- **Highlighting characteristics of specific characters**

Students design a business card for a character in the text. If possible have the students look at a selection of business cards and discuss their language and visual features. It may be easier for students to design the card on a larger piece of paper such as A5 then reduce it on a photocopier. This response can be appropriate for both narrative and factual text.



Cameron (2004, p. 27)