Abstract

This study utilises a phenomenographic approach to investigate teacher conceptions of student engagement in learning. The research question asks: "What are the qualitatively different conceptions of student engagement in learning held by secondary English teachers in Central Queensland?" The research aims to contribute to knowledge about student engagement by investigating the teacher perspectives generally ignored in the research literature. This thesis begins with a review of academic research, scholarship, and government documents where multiple and conflicting understandings of engagement are identified.

Phenomenography has been chosen as the empirical research approach because it is designed to map variation in understandings. Standard phenomenographic analysis is used in conjunction with two frameworks congruent with phenomenography. The first framework is based on understandings of *intentionality* and the second on understandings of *awareness*. Together these frameworks allow for in-depth analysis of conceptions by identifying the parts and contexts of conceptions and differentiating between the participant's understanding and his or her conception of how this understanding is facilitated.

The empirical component of the research involves semi-structured interviews with 20 Central Queensland secondary English teachers about their classroom experiences with student engagement. These data are transcribed and analysed as per phenomenographic protocol. This study identifies six conceptions within the *what* aspect, teacher conceptions of student engagement. These correspond with three conceptions comprising the *how* aspect, teacher conceptions of how to facilitate student engagement.

The findings of the empirical research and scholarly review of literature build conceptual knowledge about student engagement. This research indicates that educational stakeholders do not hold similar understandings of student engagement. If the concept of student engagement is to become educationally fruitful, the term must be more explicitly defined in educational research and government policy documents to promote shared understandings among stakeholder groups.

Teacher conceptions of student engagement in learning:
A phenomenographic investigation

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Dedication

This thesis is dedicated to my grandfather, Michael Z. Irvin, who was the first Dr. Irvin

in our family.

Declaration

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I declare that the main text is my own work and that such work has not been submitted as a requirement for the award of a degree at Central Queensland University or any other institution of higher learning.

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26 July 2006

Chapter 1
Introduction

1.1 An introduction to this study

The aim of this study is to contribute to knowledge about student engagement in learning. This chapter begins by establishing the context of the study. It outlines how understandings of student disengagement and its consequences have shaped the ways student engagement is researched and discussed in academic literature and government documents. The incongruent understandings of student engagement found in research literature and educational policy are presented as problematic, especially for those trying to engage students. The lack of research about how teachers understand this debated concept is introduced as the problem central to this study.

To address this problem, this study investigates the research question: "What conceptions of student engagement in learning are held by secondary English teachers in Central Queensland?" Phenomenography is put forward as an appropriate approach for addressing this question. The chapter concludes by outlining how the reporting of this study is organised into the chapters of this thesis.

1.2 The broader context: Student disengagement

In recent years, student engagement has become the focus of educational research and policy as it is considered to be a solution for many educational problems. One of the serious problems discussed in literature about student engagement is early school leaving; at present, one in four students in Australian schools do not complete grade 12 (Centre for Post-Compulsory Education and Training, 2003). Early school leaving is seen as the final step in a long process of emotional detachment from schooling.

Students disconnected from schooling have been called many things including *alienated* (Cumming, 1996), *withdrawn* (Finn, 1989), and *at-risk* (Wehlage & Smith, 1992). One of the more recent additions to this terminology is the word *disengaged* (McInnis, 2001; Willms, 2003).

Disengagement is considered to be a serious problem because of its scale and consequences. Studies cite disengagement as affecting between 25% (Willms, 2003) and over 66% (Cothran & Ennis, 2000) of students. Educationists associate disengagement with underachievement, truancy, and disruptive behaviour (Carrington, 2002; Lamb, Walstab, Tesse, Vickers, & Rumberger, 2004). These behaviours are thought to eventually lead to early school leaving (Finn & Rock, 1997; Lamb, Dwyer, & Wyn, 2000; McMillan & Marks, 2003; Willms 2003). In turn, early school leaving is correlated with many social problems including:

- unemployment or underemployment (Lamb, 2001; Marks & McMillan, 2001; Woods, 2001)

- participation in high risk behaviours such as premature sexual activity and alcohol or drug abuse (Woods, 2001)

- involvement in crime (LeCompte & Dworkin, 1991)

- over-reliance on welfare and social services (Macdonald, 1992; Woods, 2001)

- poor health (LeCompte & Dworkin, 1991).

Student engagement is seen as the solution to disengagement, and is perceived as helping to combat the social problems associated with early school leaving.

Student engagement emerged as a potential answer for the social and educational problems listed above in the late 1970s and early 1980s in Western educational literature. In 1980, John Smyth observed that the term *pupil engagement* was ". . .

beginning to pervade the advocacy literature and gain general acceptance as educational

jargon" (p. 225). The concept of student engagement grew from literature which

identified time-on-task and attention as markers of student and teacher success (Cobb,

1972; Grannis, 1978; McKinney, Mason, Perkerson, & Clifford, 1975). It developed

during a shift in educational focus from teacher to pupil actions, partially due to the rise

in popularity of constructivist learning theories (Cothran & Ennis, 2000; Rosenshine &

Berliner, 1978).

Student engagement is currently considered to be an antidote for disengagement and is

thought to increase student achievement (Ainley, 1993; Coil, 2003; Newmann, 1992b;

Nystrand & Gamoran, 1991); develop pupil feelings of belonging (Anderson,

Christenson, Sinclair, & Lehr, 2004; Brewster & Bowen, 2004; Cothran & Ennis, 2000;

Willms, 2003); and raise school completion rates (Dwyer, 1996; Finn, 1989, 2006;

Lamb et al., 2004). Student engagement is considered malleable, not dependent on

student demographic factors (Blumenfeld, Modell, Bartko, Secada, Fredricks, Friedel et.

al., 2005; Finn & Rock, 1997; Fredricks, Blumenfeld, & Paris, 2004; Marks, 2000).

However, despite the many benefits attributed to student engagement, it is unclear

within academic literature and government documents exactly what counts as student

engagement.

At present, the term student engagement carries a range of diverse and incongruent

meanings within academic literature and government document (Irvin, 2006). As

Butler-Kisber and Portelli (2003) explain, ". . . the concept of student engagement is an

elusive one that requires further clarification" (p. 207). Within academic literature,

Fredricks et al. (2004) identify that most studies on student engagement draw on

behavioural, emotional, or cognitive definitions of engagement or some combination of the three. These diverse understandings lead to a large range of ways educationists envision engaging students. These include *developing student skills* (Brooks, Todd, Tofflemoyer, & Horner, 2003; Gut, Farmer, Bishop-Goforth, Hives, Aaron, & Jackson, 2004; Guthrie, 2001; Sinclair, Christenson, Evelo, & Hurley 1998; Sirin & Rogers-Sirin, 2004); *building relationships* (Anderson et al., 2004; Cambourne, 1988, 1995; Cothran & Ennis, 2000); *improving curriculum and pedagogy* (Aikenhead, 2003; Bousted & Ozturk, 2004; Di Bianca, 2000; Greenwood, Horton, & Utley, 2002; Strong, Silver, & Robinson, 1995; Uekawa, Borman, & Lee, 2001; Wehlage & Smith, 1992; Woodward & Munns, 2003); and *creating community programs* (Ashiabi, 2005; Finn, 1989; Jordan & Nettles, 1999; Lamborn, Brown, Mounts, & Steinberg, 1992). An eclectic mix of these strategies has been recommended in government policies to tackle the problem of student disengagement.

Despite its "elusive" nature, the concept of student engagement has become central to many government policies. For example, Queensland's *Education and training reforms for the future: A white paper* states, ". . . this reform is about engaging young people in learning" (Queensland Government, 2002b, p. 7). However, the ways student engagement is interpreted within these policies are often vague and inconsistent with other documents from the same government agency. Inconsistencies at a conceptual level appear to lead to incongruent strategies being put forward about how to engage students. Within some Queensland policies, it is suggested that student engagement will increase if schools are made more accountable; these recommend increased use of standardised testing and whole-school approaches to teaching (Department of Education and the Arts, 2006). These understandings are incompatible with policies indicating that

personalising instruction and creating non-traditional learning pathways will facilitate student engagement (Queensland Government, 2002b). It remains unclear how those implementing the policies, like teachers, might understand the debates surrounding the concept of student engagement.

1.3 The research problem

The previous section has identified some of the incongruent understandings of student engagement found within academic literature and government documents. In this particular study, teacher understandings of student engagement became the focus because many government reports and policies mandate specific things teachers should be doing to facilitate the engagement of their students (Ministerial Advisory Committee for Educational Renewal, 2003, 2004). There appear to be inconsistencies between policy documents about which strategies should be implemented to improve student engagement; these inconsistencies may arise because of the varied understandings of student engagement held by educational stakeholders.

Research on engagement from pupil perspectives has already established that teacher actions can influence student engagement (Cothran & Ennis, 2000; Cushman, 2003; Skinner & Belmont, 1993). For example, in their qualitative study of student engagement in urban schools, Cothran and Ennis (2000) found that ". . . students reported that their engagement level was variable and the key factor in their engagement was the teacher" (p. 111). Cothran and Ennis (2000) explain that:

> Due to the low value that students frequently assigned to the subject matter, the teacher rather than the class content often became the reason for student engagement. (p. 111)

Teacher actions are considered most important in the middle and senior phases of schooling as research suggests students are most likely to disengage during these periods of time (Cumming, 1996).

While teacher actions have been identified as influencing student engagement, very little research on engagement has considered teacher perspectives (Cothran & Ennis, 2000; Louis & Smith, 1992; Waeytens, Lens, & Vandenberghe, 2002). Of these studies, none has investigated teacher understandings of student engagement. In Cothran and Ennis' (2000) study of urban students' engagement, only 4 teachers are interviewed; the primary emphasis of the research is on student responses. Louis and Smith (1992) investigate how alternative programs can maintain teacher focus and motivation in low income schools, focusing primarily on the engagement of teachers not students. Waeytens et al. (2002) investigate teacher conceptions of how students "learn to learn," linking only indirectly with student engagement.

When reviewing existing studies, it is apparent that a research gap exists surrounding how teachers understand the concept of student engagement. This gap became the basis of the research question for this study. Teacher conceptions of student engagement are considered important as:

> . . . in order to make sense of how people handle problems, situations, the world, we have to understand the way in which they experience the problems, the situations, the world that they are handling or in relation to which they are acting. (Marton & Booth, 1997, p. 111)

Gaining an understanding of teacher conceptions may help researchers better understand how teachers "are acting" within the classroom in relation to student engagement as research indicates that teacher conceptions influence their practice (Betoret & Artiga, 2004; Marton & Ramsden, 1988; Pajares, 1992). Research on other aspects of teaching

and learning has frequently investigated teacher conceptions (Bolhuis & Voeten, 2004; Brown, 2004; Hamel, 2003; Huntly, 2003), showing this to be a fruitful field of inquiry.

Central Queensland was chosen as an appropriate location to conduct this research study as most studies on student engagement are conducted in urban areas (Cothran & Ennis, 2000; Louis & Smith, 1992). Secondary teachers were selected because student engagement becomes a stronger focus in policies relating to this educational context (Education Queensland, 2003d; Queensland Government, 2002b) because disengagement is considered most prevalent during middle and senior schooling (Cumming, 1996). English teachers were chosen because they work with all students (English is a required subject) and because their subject relates to literacy, an area of government priority (Department of Education and the Arts, 2006; Education Queensland, 2000a, 2002a).

The final research question developed asks: "What conceptions of student engagement in learning are held by secondary English teachers in Central Queensland?" As this question requires research into conceptions, the phenomenographic approach was considered to be the most appropriate way of conducting the empirical component of this study.

1.4 Using a phenomenographic approach to address the research problem

Using a phenomenographic approach allows researchers to answer questions like the one posed in this study, as phenomenography provides a framework for identifying and mapping different ways people understand phenomena. Phenomenographers adopt a second-order perspective, recording participant understandings with descriptions that

are relational, experiential, content-oriented, and qualitative. Marton (1986) explains

that phenomenographers:

> . . . do not try to describe things as they are, nor do we discuss whether or not
> things can be described "as they are"; rather, we try to characterize how things
> appear to people. (p. 33)

This perspective is useful for generating a model showing the variation in ways teachers

understand student engagement and how these understandings relate to each other.

Conceptions are considered to be the "unit of description" in phenomenography

(Marton & Pong, 2005, p. 335). At times, the term conception has been replaced with

synonyms like "way of experiencing," "way of conceptualising," "way of

understanding," "way of apprehending," and "way of seeing" (Marton, 1996; Marton &

Booth, 1997; Marton, Runesson, & Tsui, 2004). However, recent publications suggest

that the term conception is once again preferred as ". . . none of them [terms listed

above] corresponds completely to what we have in mind; they all do to a certain extent"

(Marton & Pong, 2005, p. 336). The word conception will be used throughout this study

to describe participant understandings.

When conducting phenomenographic analysis, similar conceptions are grouped together

to create *categories of description*. Categories of description are ". . . abstract tools used

to characterize conceptions" (Marton, Dall'Alba, & Beaty, 1993, p. 283). Each

represents a qualitatively different way of experiencing a phenomenon. Conceptions are

seen as synonymous with categories of description because:

> . . . we can have in mind *that which is described* (ways of experiencing) or *the
> way in which it is described* (categories of description). We cannot separate
> them of course. There is no description without something described, nor can
> anything be described without a description. (Marton & Booth, 1997, p. 127)

Once categories of description are established, they are organised, often hierarchically, into the *outcome space*, the major forum for reporting phenomenographic results. The outcome space shows the relationships between participant conceptions.

Within this study, phenomenographic semi-structured interviews were conducted with 20 Central Queensland secondary English teachers. These data were analysed using a phenomenographic approach in conjunction with theoretical and analytical frameworks based on principles of awareness and intentionality (Marton, 1996; Marton & Booth, 1997; Pramling, 1983). According to Marton and colleagues (Marton et al., 1993; Marton & Booth, 1997) these two frameworks, when used together, facilitate in-depth analysis of conceptual parts. Principles of intentionality allow conceptions to be divided into *what* and *how* aspects (Marton, 1996; Marton & Booth, 1997; Pramling, 1983; Pramling & Johansson, 1995). The *what* aspect contains the meanings participants give to the phenomenon while the *how* aspect includes the conceptualised acts facilitating these meanings.

Principles of awareness allow researchers to identify the internal and external horizons of conceptions (Marton, 1994a, 2000; Marton & Booth, 1997). The internal horizon contains the parts of the conception and their relationships, while the external horizon establishes the contexts in which these understandings can exist. While the primary purpose of this doctoral study is to investigate teacher conceptions of student engagement, a secondary purpose is to test if Marton and Booth's (1997) framework can be useful when conducting phenomenographic analysis.

Through phenomenographic analysis, six conceptions were identified within the data relating to the *what* aspect; three categories were found relating to the *how* aspect. These categories are organised hierarchically in the final outcome space because participant awareness expands as categories ascended; data in higher categories is more complex and often critiques conceptions found in lower categories. The variation found in this data indicates that educationists cannot assume that teachers share similar understandings about student engagement; those using the term should use precise definitions to avoid misunderstandings or misinterpretations.

1.5 Reporting this study: An outline of subsequent chapters

This chapter outlines the context of this study and then introduces the research problem and question. Phenomenography is presented as a fruitful approach for use in this study. An outline of the research design is given prior to a brief summary of key results.

Chapter 2 contains a review of academic literature and government documents relating to student engagement. It begins by examining academic literature relating to understandings of student engagement, establishing that most studies are underpinned by behavioural, psychological, or cognitive understandings of engagement, or some combination of the three. This review makes it evident that varying and often incongruent ways of understanding student engagement are present in academic literature. As literature suggests that cognitive engagement is most closely associated with student learning (Nystrand & Gamoran, 1991), a hierarchical model of student engagement is put forward.

The next section of the chapter is a review of academic literature on ways to facilitate student engagement. Developing student skills, building relationships, improving

curriculum and pedagogy, and creating community programs are all suggested as ways to create student engagement. Chapter 2 concludes with a review of relevant supranational, international, Australian, and Queensland government reports and policy documents relating to student engagement. The reviews completed in this chapter establish that understandings of student engagement and strategies proposed to facilitate it are at times incongruent, even within documents from the same government agency. It poses the question of how stakeholders may interpret these diverse understandings.

Chapter 3 builds on Chapter 2 by explaining in more depth why phenomenography is suited to investigating the research question central to this study. The remainder of the chapter is devoted to explicating the theoretical principles underpinning the use of phenomenography within this study. It outlines and then discusses phenomenographic assumptions relating to ontology, epistemology, and language, explaining their implications for the research process. Next, two theoretical and analytical frameworks congruent with phenomenography are introduced. The first is based on understandings of *intentionality*, allowing researchers to separate conceptions into a meaning and way of facilitating that meaning. The second is underpinned by understandings of *awareness*, assisting researchers in identifying the parts of a conception, their relationships, and the contexts where they are embedded. This chapter reviews the different ways these theoretical parts are conceptualised within the field before explicating how they are defined within the context of this study.

Chapter 4 presents the research design and process of analysis. It begins by linking the research design to the theoretical principles discussed in Chapter 3 and outlining how data collection tools are created and used within the empirical study. The second half of

the chapter steps the reader through the stages of analysis undertaken to generate the outcome space. During this section, procedures are reviewed from phenomenographic literature, and then illustrated using data from the study.

Chapters 5 and 6 present the results from the study. Chapter 5 uses data to illustrate the six categories of description aligned to the *what* aspect, showing participant understandings of student engagement. Chapter 6 relates to the *how* aspect and reports data relating to the three categories describing ways teachers suggest engagement is facilitated. These chapters are also used to identify similarities and differences between categories, demonstrating how participant awareness of aspects of student engagement expands as categories ascend in the hierarchy.

Chapter 7 reports the conclusions and implications of this study. It begins with an explanation of how phenomenography has been used to get a fresh look at student engagement. Next, the relationships between *what* and *how* aspect categories are identified and discussed. Key differences between categories are emphasised, particularly in relation to teacher awareness of student learning, students, teaching styles, class structures, and the achievability of student engagement. The implications of the findings of this study are then discussed, followed by an explanation of the contributions this study has made to the phenomenographic approach. The chapter concludes by acknowledging the study's limitations and suggesting areas for future research.

Chapter 2
A review of literature on
student engagement

2.1 Introduction

Within academic literature and government documents, many educationists represent student engagement as an antidote for the problems associated with disengagement. The concept of student engagement is considered fruitful as it ties educational success to "… what students do, not who they are" (Korkmaz, Duffy, Dennis, Cakir, Bunnage, & Bichelmeyer, 2006, p. 1). Student engagement is presumed malleable; most literature suggests that all students, regardless of background, can potentially engage and reap the positive academic and social outcomes correlated with it including academic achievement, learning, high school completion, and belonging (Cambourne, 1995; Finn, 1989; Lamborn et al., 1992; Marks, 2000; Newmann, 1992b; Sirin & Rogers-Sirin, 2004; Willms, 2003). Students who are highly engaged are also thought to learn more than those who are less engaged (Marzano et al., 1997).

At present, however, the usefulness of this concept is questionable because of the multiple and incongruent meanings it carries within academic literature and government documents. McMahon and Portelli (2004) state that the concept's lack of theoretical grounding has caused it to become a ". . . popular, but at times . . . empty and superficial, catch-phrase or slogan" (p. 60). The multiple contexts where student engagement is studied and the variety of theoretical and methodological approaches used to investigate it may contribute to the differences between understandings.

Student engagement is also difficult to define as ". . . engaged students do not all manifest their engagement in the same way. . . . manifestations of student engagement are sundry, ambiguous and elusive" (Nystrand & Gamoran, 1991, p. 263). At present, the many "manifestations" of student engagement found in literature and policy can be interpreted as inconsistency within the field; mapping the commonalities present would be a fruitful contribution to research. Some work has already been done to establish similarities and differences (Fredricks et al., 2004; Smyth, 1980). For example, Fredricks et al. (2004) establish that both single and multidimensional understandings of student engagement are present in academic literature.

While this chapter examines a substantial amount of literature relating to student engagement in learning, this review, like all others, has a limited scope. Concepts of engagement are reviewed in light of their relationship to student learning; this learning is privileged above other potential benefits of engagement and is viewed as the primary purpose of engagement. Also, while writers discussing socio-cultural, cognition, and learning theories at times incorporate the concept of student engagement into their work, this review does not cover this material, instead examining papers citing student engagement as one of their primary key words. As such, there is a range of literature useful to looking at the concept of student engagement through the lenses of other theories and fields that are not explored in this review.

This chapter begins by examining one-dimensional understandings of student engagement, exploring the origins and limitations of each. It continues by exploring multidimensional concepts of student engagement. This review demonstrates that student engagement is interpreted in diverse ways, highlighting the need for those using

the concept to define it explicitly. The literature reviewed has been used to generate the hierarchical model of student engagement presented at the end of these sections. This model represents cognitive engagement as more complex and fruitful than psychological and behavioural engagement.

Next, the multiple ways authors recommend facilitating student engagement are examined. This section relates these ways of facilitating student engagement to the conceptual understandings discussed in the previous section. The chapter then examines how supranational, international, Australian, and Queensland government agencies use the concept of student engagement within government reports and policies relating to education. This section identifies the similarities and differences in how the concept of student engagement is used in various levels of government documents and in relation to diverse educational issues. The chapter concludes by discussing the educational implications of the discord within the literature about meanings of student engagement.

2.2 Single dimensional constructs of student engagement from academic literature

Student engagement is defined in numerous ways throughout academic literature, possibly because of the diverse ways it is theoretically constructed and empirically researched. Throughout the literature, there is no consensus about the best way to delimit one type or facet of engagement from another. However, most authors refer to types of engagement that can be linked to *behavioural*, *psychological*, or *cognitive* aspects of student experience (Anderson et al., 2004; Linnenbrink & Pintrich, 2003; Fredricks et al., 2004). While these classifications are contentious, especially in relation to the boundaries between cognitive and psychological aspects of engagement, the

following sub-sections will identify the distinctions betweens these domains as conceptualised in this study.

2.2.1 Behavioural engagement

Behavioural engagement grew out of the "time-on-task" literature and is used to describe students' participation in classroom activities and acquiescence to school and classroom norms. Initially referred to as *pupil engagement*, *pupil engaged learning time* or *academic engaged time*, the concept was used to study students' rates of participation in classroom activities as a marker of teacher effectiveness (Rosenshine & Berliner, 1978; Smyth, 1980). Participation rates were also correlated with student academic achievement (Cobb, 1972; Good & Beckerman, 1978; Grannis, 1978; McKinney et al., 1975), making "the connection between pupil engagement and achievement . . . well established" (Smyth, 1980, p. 237).

Today, few researchers use exclusively behavioural understandings of student engagement, in part because this early measure did not take into account the affective and cognitive aspects of student experience. However, some researchers still construct engagement as student participation in school tasks (Brooks et al., 2003; Greenwood et al., 2002), drawing on literature of the 1970s and 1980s introduced in Chapter 1 that correlates participation with achievement (Cobb, 1972; Good & Beckerman, 1978; Grannis, 1978; McKinney et al., 1975). For example, Greenwood et al. (2002) explain that student engagement is:

> . . . a composite of specific classroom behaviours: writing, participating in tasks, reading aloud, reading silently, talking about academics, and asking and answering questions. (p. 328)

This definition is used to underpin their quantitative research in American Title 1 elementary schools[1]; their results indicate that individual student tasks like worksheets, paper/pencil activities, workbooks, readers, and computer-based activities are most effective for engaging students. These types of tasks are seen as keeping students working, minimising disruptive behaviour since ". . . if a student is unruly and disruptive, he or she will be unable to respond to academic opportunities. . . . these actions may 'spill over,' preventing the learning of others" (Greenwood et al., 2002, p. 328).

Today, behavioural engagement is seldom used as a stand-alone concept because of its perceived limitations. Many authors question if participation directly correlates to learning (Kuh, 2003; Lankshear & Knobel, 2005; Linnenbrink & Pintrich, 2003; Pope, 2001). For example, Linnenbrink and Pintrich (2003) explain that:

> Simple attention in terms of the students having their eyes on the teacher and not talking to peers may not be enough for learning. . . . learning should not just be "hands on" but also '"minds on." (p. 124)

Researchers suggest that the act of "doing" cannot be equated directly with learning or understanding (Kuh, 2003; Linnenbrink & Pintrich, 2003). This critique is in line with those currently questioning the academic value of common school tasks like worksheets (Newmann, 1992b; Nystrand & Gamoran, 1991).

Behavioural engagement is also considered difficult to measure, especially through observation alone. Recent studies have established a distinction between genuine participation (which may lead to learning) and "doing school" where students participate and appear compliant, but seldom meaningfully engage (Lankshear &

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[1] Schools are labelled Title 1 because demographic information (number of students on free or reduced lunch, etc.) indicates students at the school are 'disadvantaged,' making these schools eligible for additional government funding.

Knobel, 2005; Pope, 2001). For example, Pope's (2001) case study of the in and out of

school behaviours of five students considered exemplary by school staff found that

many were seldom engaged. Pope (2001) notes that these students:

> . . . realize that they are caught in a system where achievement depends more on
> "doing" - going through the correct motions - than on learning and engaging
> with the curriculum. (p. 4)

Pope (2001) explains that Eve, a student who ranked 6th in her grade level at the time of

the study:

> . . . consciously strives to appear as if she is paying attention, even though in
> reality she may be doing other homework assignments or studying for exams.
> For instance, Eve tries to ask a question every ten minutes in her science class so
> the teacher will think she is on task. (p. 41)

This example illustrates how students considered to be behaviourally engaged may

instead be experts on "doing school." Like Eve, they know how to trick teachers into

thinking they are paying attention and working hard. Pope's (2001) study exposed that

many top students do things they are not proud of to achieve "success," learning ". . . to

cheat, kiss up, form treaties, contest school decisions, and act in ways that run counter

to explicit school rules and guidelines" (p. 150).

Lankshear and Knobel's (2005) work confirms that teachers seldom notice off-task

behaviour if the student is proficient at "doing school." Using data from Leander's

ethnographic study of student ICT practices, they show that students are highly adept at

multitasking. They use the example of Zoe, a student who spent the majority of the

observed English lesson on her laptop reading and developing weblogs unrelated to the

class poetry discussion. To maintain the appearance of "engagement," she periodically

changed her screen to a word document, feigned note-taking when the teacher walked

by, and answered questions when called upon. While Lankshear and Knobel (2005)

utilise this example to show student proficiency in multitasking, this anecdote

demonstrates that Zoe, like Eve, has learned how to convince teachers she is behaviourally engaged in classroom tasks when clearly she is not. These examples problematise the concept of behavioural engagement by showing that students who teachers consider to be engaged may not be, suggesting that observations of behaviour are an unreliable way of measuring student engagement.

2.2.2 Psychological engagement

While research prior to and during the 1970s focused primarily on behavioural engagement, in the 1980s and 1990s some researchers introduced the idea that student engagement is a combination of affective factors within the learning environment such as interest, enjoyment, effort, and student feelings of belonging (Cambourne, 1988, 1995). This type of student engagement is considered to be a psychological process (Marks, 2000) and much of the early work drew on literature about motivation and attitudes (Fredricks et al., 2004). Unlike behavioural concepts, which are scarce in 21st century literature, primarily psychological understandings of student engagement continue to underpin research (Di Bianca, 2000; Hufton, Elliot, & Illushin, 2002; Marks, 2000; Shernoff, 2001; Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003; Shernoff & Schmidt, 2006).

The idea that student engagement is more than participatory behaviours is supported by Cambourne's (1988, 1995) research into natural learning within literacy education. Cambourne (1988) suggests that student engagement occurs when pupils consider themselves as potential doers of what is demonstrated, create connections between learning and their own purposes, feel the environment is safe, and are encouraged to learn by someone significant to them. Based on this understanding, positive relationships between the students, their school work, and the environment are

important as supportive relationships lead students to attempt new things and put effort into learning.

Many researchers suggest that interest and enjoyment are important to student participation and learning (Jones, 2001; Shernoff, 2001; Shernoff et al., 2003). For example, Jones stresses the value of fostering curiosity and desire to learn. Shernoff et al.'s (2003) work, underpinned by Csikszentmihalyi's flow theory, suggests that challenging students can increase their interest and engagement in tasks. Shernoff (2001) explains that:

> . . . students are more engaged when they feel more challenged, there is a clear objective, and they are encouraged to demonstrate the full extent of their knowledge and abilities - the exact conditions conducive to flow experiences. (p. 213)

These flow experiences are ". . . based on the culmination of concentration, interest and enjoyment" (Shernoff et al., 2003, p. 158). In work by Shernoff (2001) and Shernoff and Schmidt (2006), engagement is not limited to school or learning experiences; like flow experiences, student engagement is conceptualised as occurring within the context of any activity.

However, psychological engagement is also seen as possessing certain limitations when used as a stand-alone construct. Some academics posit that this concept places too much emphasis on affective factors like student belonging and feelings of success. Skinner and Belmont (1993) note that "educators have plausibly wondered whether it is likely that students who feel good about school may nevertheless fail to learn anything" (pp. 572-573). Overemphasising these affective aspects may push emphasis away from challenging students to learn and take educational risks. While creating a friendly, accepting environment within a school is important, it should be considered as a means

to improving learning, not an end in itself. While work like Cambourne's (1988, 1995) specifies that creating a supportive classroom environment and developing belonging will increase student willingness to take academic risks, the majority of work on psychological engagement does not address this issue, focusing instead on fostering student interest and enjoyment, assumed to lead to learning.

Over-emphasising interest and enjoyment is also viewed as problematic. Researchers like Miller, Greene, Montalvo, Ravindran, & Nichols (1996) argue that students must be taught certain information and skills to be integrated successfully into society. They suggest that educationists should accept that students might not be intrinsically interested in and motivated to learn all necessary content; in these cases, students should be encouraged to value learning for utilitarian reasons.

2.2.3 Cognitive engagement

Cognitive engagement emerged at roughly the same time as psychological engagement, during the late 1980s and 1990s (Ainley, 1993; Lee & Anderson, 1993; Meece, Blumenfeld, & Hoyle, 1988; Skinner & Belmont, 1993; Skinner, Wellborn, & Connell, 1990). It overlaps with literature relating to motivation and learning, examining student learning goals, intrinsic motivation, and use of learning strategies (Fredricks et al., 2004). Many researchers continue to utilise this concept (Greene & Miller, 1996; Kearsley & Shneiderman, 1998; Miller et al., 1996; Roeser, Strobel, & Quihuis, 2002).

Cognitive engagement, unlike previous categories, focuses on the mental processes students undertake when they become involved in learning. Miller et al. (1996, p. 417) list self-regulation, persistence, and deep strategy usage as the definitive signs of student engagement. Roeser et al. (2002) also consider the use of learning and metacognitive

strategies as the primary sign of student engagement as these strategies have been shown to increase the quality of student learning. For example, Ainley's (1993) research suggests that engaged students use deep level strategies while disengaged students are more likely to utilise surface approaches to learning. This difference is important as research demonstrates that deep approaches produce superior learning outcomes (Marton & Booth, 1996; Marton & Saljo, 1976, 1997).

Student effort and investment in learning are considered important for cognitive engagement. For example, Newmann, Wehlage, and Lamborn (1992) define student engagement as:

> . . . the student's psychological investment in and effort directed towards learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote. (p. 12)

Here, effort is constructed differently than in behavioural engagement. While behavioural effort is focused on completing work, cognitive effort is directed towards mastery, showing a deeper level of commitment to, and value of, learning.

While cognitive engagement appears most likely to facilitate learning, it is also most difficult to document accurately in research. As Nystrand and Gamoran (1991) point out, cognitive engagement is ". . . no more visible than thought itself" (p. 263). Indicators of student cognitive engagement can only be gathered by listening to student comments and questions, observing how they solve problems, and evaluating the quality of their work (Linnenbrink & Pintrich, 2003). As cognitive engagement is difficult to investigate, it appears to be the least substantiated by research; although cognition is studied in psychological and neurological research, explicit links are yet to be made between cognitive engagement and findings in these areas.

2.3 Multidimensional constructs of student engagement from academic literature

While researchers continue to utilise the three types of student engagement discussed in the previous section, more are blending versions of these together to form multidimensional constructs. Models that combine types of engagement have fewer limitations as these acknowledge the interplay between the types of student engagement that shape pupil experience. While some models represent all varieties of student engagement as equal, others order them hierarchically.

2.3.1 Three- and four-dimensional models of student engagement

The majority of multidimensional constructs of student engagement combine behavioural, cognitive, and psychological elements to construct a holistic model of student experience (Anderson et al., 2004; Blumenfeld et al., 2005; Fredricks et al., 2004; Linnenbrink & Pintrich, 2003). For example, Anderson et al. (2004) identify four types of engagement: behavioural (classroom and extracurricular participation, attendance); academic (time-on-task, academic learning time); cognitive (self-regulated learning, student responsibility, use of learning strategies to complete a task); and psychological (sense of belonging, relationships with teachers and peers) (p. 110). While Anderson et al. (2004) list four types of student engagement, behavioural and academic engagement could both be classified as types of behavioural engagement as they focus on participation.

Linnenbrink and Pintrich (2003) use the terms behavioural, motivational, and cognitive engagement in their three-dimensional model, although they use these differently from other constructs. They define behavioural engagement as a combination of effort, persistence, and instrumental help-seeking as opposed to the majority of authors who

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construct it as participation in school tasks and activities (Brooks et al., 2003; Greenwood et al., 2002; Rosenshine & Berliner, 1978; Smyth, 1980). While Linnenbrink and Pintrich's (2003) understanding of behavioural engagement is still identified by observing participation and effort, it suggests a greater investment and involvement in learning. Although Linnenbrink and Pintrich (2003) define cognitive engagement in a similar way to others, they use the term motivational engagement instead of psychological or emotional engagement. Their use of the concept of motivation is also different to other authors. For example, while Hufton et al. (2002) consider motivation and engagement to be separate entities which act on each other, Linnenbrink and Pintrich (2003) put forward that motivation and engagement are connected.

Fredricks et al. (2004) construct a three-dimensional model based on data from 44 reviewed studies on student engagement. This literature review suggests that existing research on student engagement can be classified into behavioural, emotional, and cognitive categories (emotional engagement is similar to what has been called psychological engagement within this literature review). Fredricks et al. (2004) argue that all three categories represent important dimensions of student engagement and all should be investigated in studies of engagement. In their model, behavioural engagement is participation in academic, social, and extracurricular activities. Emotional engagement is a student's personal attitudes and reactions towards school, teachers, learning, and peers. Cognitive engagement is personal investment in learning in a focused, strategic, and self-regulating way.

Fredricks et al.'s (2004) model has been used successfully to conduct multidimensional research on student engagement. For example, Blumenfeld et al. (2005) use survey and interview data from over 1,000 grade 3, 4, and 5 students from well-functioning inner city schools to investigate all three types of student engagement. They found that the three types are significantly correlated, but that these correlations were modest, indicating that each reflects different aspects of school experiences. Blumenfeld et al. (2005) suggest that all three types are important to consider when assessing student engagement and that the three have a non-hierarchical relationship.

Fredricks et al.'s (2004) categorisation provides a multidimensional model of student engagement frequently cited within the research community (Blumenfeld et al., 2005; Irvin, 2006; Korkmaz et al., 2006; Shernoff & Schmidt, 2006). However, other research indicates that behavioural engagement is less important to student learning than cognitive and psychological engagement (Nystrand & Gamoran, 1991). While behavioural engagement may be an important precursor for other types of school engagement and may serve certain purposes at school, work by authors such as Pope (2001) illustrates that students can be behaviourally engaged without actually internalising and learning much, if any, of what is being taught. This suggests that a hierarchy may be present as it is quite possible for students to be behaviourally engaged without any cognitive engagement, but not vice a versa.

2.3.2 Hierarchical models

Within the research literature, there are only a few examples of hierarchical models of student engagement (Finn, 1989; Finn & Rock, 1997; Nystrand & Gamoran, 1991; Woodward & Munns, 2003). However, identifying hierarchical relationships between types of student engagement is fruitful as these models help establish the relationships

between varieties of engagement to ascertain which are most associated with increased student learning.

Finn's (1989) hierarchical model of student engagement is most cited. It was developed as part of a review of literature examining reasons why students withdraw from school and identifying potential ways of alleviating their disaffection and increasing school retention. Within it, student engagement is conceptualised as a way of increasing attachment to school. In the review, Finn (1989) identifies three states of engagement (referred to as participatory behaviours), primarily drawing on behavioural understandings of engagement. Level One engagement consists of participation and acquiescence to school rules. Level Two engagement occurs when:

> . . . students initiate questions and dialogue with the teacher and display enthusiasm by their expenditure of extra time in the classroom before, during or after school, or by doing more class work or homework than is required. (Finn, 1989, p. 128)

While many Level Two criteria are still behavioural in nature, some psychological elements are acknowledged such as "enthusiasm" and effort. Level Three engagement occurs when the students participate in extracurricular school activities; this participation has been correlated to improved school retention rates (Finn & Rock, 1997; Fullarton, 2002). While this model is useful for generating a deeper understanding of behavioural engagement, it largely ignores the psychological and cognitive aspects of student engagement considered necessary for learning.

Other researchers put forth hierarchical theoretical models, many based on issues of social justice (McMahon & Portelli, 2004; O'Brien, 2000; Portelli & Vibert, 2002). For example, McMahon and Portelli (2004) suggest that three theoretical positions underpin definitions of student engagement. In the first, the conservative or traditional approach,

teachers determine the criteria for academic success; this approach is based primarily on psychological and behavioural understandings of engagement. McMahon and Portelli (2004) indicate that this viewpoint is problematic as it does not ". . . question what is learned, the reason for learning it, or whose meanings are being learned" (p. 63). They argue that this approach will perpetually reinforce the status quo, limiting the potential for meaningful changes towards social justice.

The second theoretical position is the liberal or student-oriented approach. This approach considers social context as well as behavioural and psychological aspects of student engagement. McMahon and Portelli (2004) claim that this perspective still falls short as it does not ". . . question the purpose of engagement or the implicit assumption that the purpose of education is to preserve the existing social order" (p. 69). They suggest that this position is likely to marginalise groups who do not espouse the middle or upper class Anglo values dominant in education.

The final theoretical position is the critical-democratic approach, McMahon and Portelli's (2004) preferred position. Here they explain that:

> . . . engagement is generated through the interactions of students and teachers, in a shared space, for the purpose of democratic reconstruction, through which personal transformation takes place. (p. 70)

Citing examples of democratic pedagogy (Portelli & Vibert, 2002) and drawing heavily on authors like Freire and hooks [*sic*], they argue that a truly engaging learning experience will be transformational. Only learning experiences that expose the dominant social order and challenge inequalities are considered meaningful and engaging; students, teachers, and communities are considered to need to engage

together to work for social justice. These authors advocate that teachers should use an "engaged pedagogy" which is:

> . . . an approach to teaching and learning that supports teachers as reflective practitioners, as transformative intellectuals and as whole, passionate, caring people. (O'Brien, 2000, p. 287)

While this model creates one map of student engagement's theoretical terrain, it is undermined by McMahon and Portelli's (2004) strong advocacy for the critical-democratic conception of engagement (Irvin, 2004). McMahon and Portelli's (2004) position that the fight for social justice underpins all engaging experiences is extreme. There is a lack of research suggesting that all learning experiences must be transformative, indicating that their theoretical position is ideologically instead of empirically based.

Another more useful hierarchical model divides student engagement into procedural and substantive categories. Procedural engagement is associated with behavioural engagement and substantive engagement describes aspects of psychological and cognitive engagement (Nystrand & Gamoran, 1991; Woodward & Munns, 2003). This model is based on a three-dimensional understanding of student engagement with Woodward and Munns (2003) acknowledging that ". . . engagement operates at cognitive (thinking), affective (feeling) and operative (doing) levels" (p. 3). Procedural engagement occurs when students complete class activities and homework (Nystrand & Gamoran, 1991). Substantive engagement happens when students commit to academic study, manifested by nuances like ". . . a twinkle in the eye . . ." or ". . . rapt attention …," sometimes manifested ". . . years after they leave school" (Nystrand & Gamoran,

1991, p. 263). Substantive engagement is considered higher hierarchically as it is most closely associated with learning (Nystrand & Gamoran, 1991).

Woodward and Munns (2003) argue that there are two additional types of student engagement, both with cognitive, psychological, and behavioural components. They term the first "little e" engagement; it is temporal, occurring when students participate in school tasks and based on procedural engagement. "Big e" Engagement is commitment and emotional attachment to education and is associated with substantive engagement. Woodward and Munns (2003) suggest that schools should try to increase Engagement not engagement, even though in most cases engagement will be embedded within Engagement since daily experiences help construct positive attitudes towards learning.

Both of these models (Nystrand & Gamoran, 1991; Woodward & Munns, 2003) indicate that behavioural engagement is not as educationally fruitful as aspects of psychological and cognitive engagement. However, it is currently unclear exactly what aspects make up "substantive" engagement and Engagement. Little is mentioned about aspects important to cognitive engagement like self-regulation, strategy usage, and deep approaches to learning. These models also lack the clear distinction between psychological and cognitive aspects of student engagement established in current work on this subject (Fredricks et al., 2004).

2.4 Synthesising academic understandings of student engagement: A hierarchical, three-dimensional model

Fredricks et al.'s (2004) three-dimensional conceptualisation of student engagement has become widely accepted and cited in academic literature (Blumenfeld et al., 2005; Irvin,

2006; Korkmaz et al., 2006; Shernoff & Schmidt, 2006). While other researchers use slightly different terminology (Anderson et al., 2004; Irvin, 2006; Linnenbrink & Pintrich, 2003; Nystrand & Gamoran, 1991; Woodward & Munns, 2003), most have similar underlying descriptions of the three types of student engagement. Preliminary research using this model has suggested that these three types of student engagement each represent unique aspects of student experience (Blumenfeld et al., 2005); however, more qualitative and quantitative research are needed to put these findings on a strong empirical footing.

While the existence of these three types of student engagement does appear to be substantiated in academic literature and empirical research, Fredricks et al.'s (2004) model does not take into account research suggesting that cognitive and psychological engagement are more closely associated with learning than behavioural engagement (Nystrand & Gamoran, 1991). This relationship suggests that a hierarchical organisation of behavioural, psychological, and cognitive engagement would best explain the relationship between these three categories, similar to less specific hierarchical models put forward by other authors (Nystrand & Gamoran, 1991; Woodward & Munns, 2003). The diagram shown in Figure 2.1 on the following page could represent such a model.

Unlike Fredricks et al.'s model (2004), the one proposed in this section uses the term psychological engagement instead of emotional engagement. While affective feelings about the school and school community are generally emotional in nature, other aspects of this concept, like commitment to schoolwork, are often based on goal orientations and other psychological phenomena. Other researchers also choose to use the term psychological engagement instead of emotional engagement, hence its use within this

model (Anderson et al., 2004; Marks, 2000; Christenson, 2004). As cognitive

engagement is considered most closely associated with learning, it is placed at the apex

of the model (Nystrand & Gamoran, 1991). Psychological engagement is positioned

below it as it facilitates cognitive engagement, acknowledging the role positive affective

factors have on learning (Cambourne, 1988, 1995). Behavioural engagement is

positioned as the foundation of the model as it is least linked to cognitive engagement

and learning (Lankshear & Knobel, 2005; Pope, 2001).
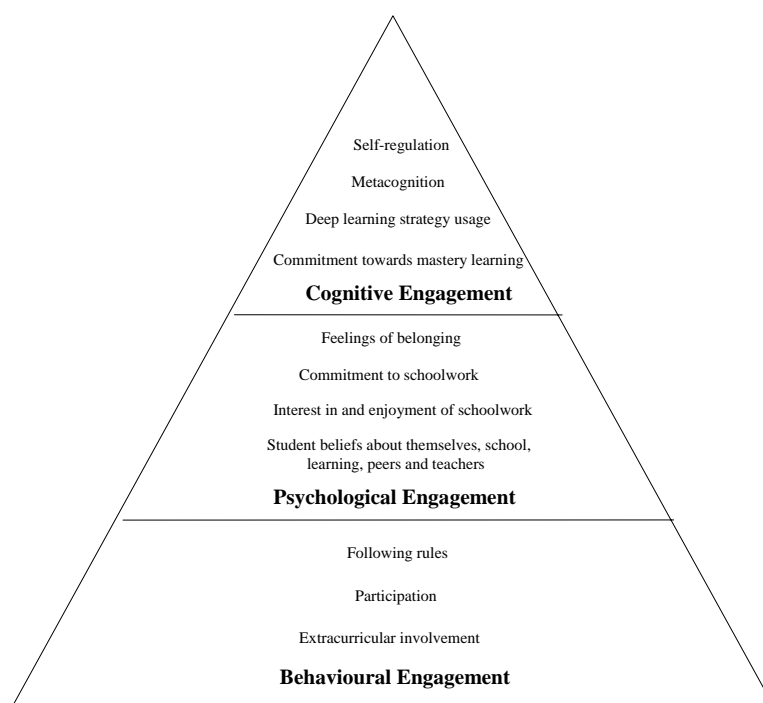
Figure 2.1 - A hierarchical model of student engagement

Throughout this study, this hierarchical, three-dimensional model of student

engagement will be related to understandings of engagement found in academic

literature and government documents, as well as the empirical data found in this study.

Within this model, behavioural engagement is understood to be student participation in

school and extracurricular activities and adherence to school rules. Psychological

engagement includes the affective qualities of student experience like students' beliefs

about themselves, learning, school, teachers, and peers and their interest in and commitment to schoolwork. Cognitive engagement refers to student self-regulation, commitment to mastery learning, and use of deep learning strategies and metacognition.

2.5 Ways of facilitating student engagement found in academic literature

Ways of facilitating student engagement are as varied as the conceptualisations discussed in the previous sections. Many focus on groups often considered disengaged. These include students with special needs (Brooks et al., 2003; McWilliams & Bailey, 1995; Sinclair et al., 1998); minority students (Blumenfeld et al., 2005; Brewster & Bowen, 2004; Cothran & Ennis, 2000); and pupils coming from low socioeconomic backgrounds (Ashiabi, 2005).

Within academic literature, ways of facilitating student engagement can be grouped into four categories. In the first, the emphasis is focused on developing student skills, underpinned by the assumption that disengaged students can (and will) engage if they gain skills needed for successful participation. Within the second, educationists articulate the importance of building student relationships, especially with adults; these relationships are thought to build student self-esteem and sense of belonging. In the third, the emphasis is on improving curriculum and pedagogy to give students more meaningful and challenging learning opportunities. Within the fourth, educationists suggest creating community programs that meet students' physical and emotional needs.

While some of these ways of facilitating student engagement are strongly associated with behavioural, psychological, or cognitive aspects of engagement, many are underpinned by a combination of these understandings. In this section, each way of

facilitating student engagement will be reviewed and linked to corresponding understandings of this concept.

2.5.1 Developing student skills

Research reviewed in this section appears to place importance on helping students develop the personal and academic skills necessary for participation in mainstream education (Brooks et al., 2003; Gut et al., 2004; Guthrie, 2001; Sinclair et al., 1998; Sirin & Rogers-Sirin, 2004). Students are considered to have unique personal and academic needs; they could need assistance developing pro-social behaviour, goal-setting skills, or core academic competencies. Most studies are based on a deficit model of students; students are considered to be "lacking" something needed for engagement and the reported studies are frequently conceptualised or enacted as interventions. In these studies, behavioural engagement appears to be the desired outcome and its value seems unquestioned.

Within this literature, some students, especially those with disabilities, are seen as needing primarily social skills for engagement in mainstream classes (Brooks et al., 2003; Sinclair et al., 1998). For example, Brooks et al. (2004) found that teaching a self-management program to Hannah, a student with Down syndrome and mild mental retardation, significantly increased her engagement in seatwork activities. This program included training in self-monitoring, self-recording, and self-recruitment of reinforcement. Brooks et al. (2004) suggest that creating individual self-management programs and training students to use them can positively affect behavioural engagement.

Other studies indicate that many disengaged students lack core skills needed for participation (Gut et al., 2004; Guthrie, 2001). For example, Gut et al. (2004) focus on improving student reading in the School Engagement Project, hypothesising that reading ability is a significant indicator of engagement in school. They developed a specific set of reading strategies to use with upper primary students called the Academic Engagement Enhancer, including vocabulary development based on phonological awareness and comprehension development through a peer tutoring system. Anecdotal evidence suggests that students are more eager to participate in reading lessons structured this way and are developing reading skills and strategies, although empirical research would be needed to validate these claims.

Within this section, student engagement is seen as best facilitated by helping pupils develop skills they lack. While some of these ways of facilitating student engagement may have implicit cognitive and psychological aims as well, most are designed to elicit participation. While interventions like those discussed here can help develop student skills, some consider interventions where students are removed from their normal classes to be problematic (Blumenfeld et al., 2005). Blumenfeld et al. (2005) found that students receiving remedial help in core skills are usually taken out of music, physical education, or other elective subjects. Often these electives are what the students enjoy most about their school experience, making them further alienated. Programs requiring students to be pulled out of normal classes to learn skills like the ones described by Brooks et al. (2003) can lower student self-esteem and separate them from peers (Allen, 2002). Whole-class strategies like the peer teaching suggested by Gut et al. (2004) show more promise for improving basic academic skills.

2.5.2 Building relationships

Another body of research literature suggests that student engagement is facilitated by positive relationships with adults, including teachers, parents, and community members (Anderson et al., 2004; Cambourne, 1988, 1995; Cothran & Ennis, 2000). These relationships are seen as contributing to student self-esteem and sense of belonging (Dwyer, 1996), goals considered by some as educational ends in and of themselves (Willms, 2003). Here, psychological engagement is thought to be most important as participation is believed to be based on student commitment to schooling.

This strategy for facilitating student engagement is based on research suggesting that positive, supportive relationships with adults, especially teachers, can improve student engagement (Cambourne, 1988, 1995; Cothran & Ennis, 2000; Cushman, 2003). For example, Moje (2000) explains that teachers are able to engage their students, not just by challenging them academically, but also "… by connecting to them personally" (p. 66). Cothran and Ennis (2000) state that:

> Teachers need to learn communication and caring skills that allow them to build a personal relationship with students in order for their professional expertise and curriculum to be effective. (p. 116)

Brewster and Bowen's (2004) research on Latino students indicates that high levels of teacher support significantly reduce problem behaviours and increase school meaningfulness for students. As the demographic variables are not significant within this study, data indicate that students across a range of situations may become more engaged through teacher support. This research is supported by Cambourne's (1995) work, which suggests that learners are more likely to engage if they are free from anxiety and have respect, admiration, and trust for the person asking them to participate. Student-teacher relationships are thought to be enhanced when teachers acknowledge

students' lives outside of school lives and recognise their range of personal discourses (Fecho, 2001; Knobel, 1999).

Relationships with parents and community members are also considered important as engagement ". . . results . . . from the level of social support from peers, parents, and the community beyond school" (Newmann, 1998, p. 91). Lamborn et al. (1992) found that an authoritative (high warmth, high demands) parenting style is most positively correlated with student engagement and they recommend parental involvement in school groups like parent-teacher organisations. Community members are also seen as filling an important role. For example, Anderson et al.'s (2004) intervention, the Check and Connect program, paired at-risk primary and secondary students with a community member who became the student's mentor, case-worker, and advocate. Mentors met weekly with each student, communicating regularly with their families, school staff, and community professionals; many spent time with students outside of school. Empirical results suggest that the program led to higher engagement evidenced by better student attendance, attitudes, and behaviours. Longitudinal data also indicate that students involved in the program are more likely than similar peers to complete school.

The research discussed in this section appears to show that meaningful relationships with adults can facilitate student psychological engagement. However, not all relationships with adults are viewed positively. Hufton et al's (2002) research has identified that some communities are not aligned with the values schools are trying to promote and suggests that those promoting education should begin by ". . . convincing children, their families, and communities that working harder [at school] will produce gains that have both meaning and value" (p. 284). It is considered unlikely that

meaningful relationships will form until student and community values undermining

educational goals are changed. Programs like the Check and Connect program show

promise as data indicate mentors are able to positively influence the attitudes of both

parents and students (Anderson et al., 2004).

2.5.3 Improving curriculum and pedagogy

Many academics recommend facilitating student engagement through improving

curriculum and pedagogy (Aikenhead, 2003; Bousted & Ozturk, 2004; Di Bianca, 2000;

Greenwood et al., 2002; Strong et al., 1995; Uekawa et al., 2001; Wehlage & Smith,

1992; Woodward & Munns, 2003). The content and context of learning are considered

important. Research indicates that the variation in engagement within individual

students is greater than variation between students (Uekawa et al., 2001); both the

nature of tasks and the strategies used to facilitate them can affect engagement.

The differences between proposed changes to curriculum and pedagogy are partially

explained by the understandings of student engagement that underpin them. For

example, Greenwood et al. (2002) appear to use primarily behavioural understandings

of student engagement. Their research found that much of students' class time was spent

in task management and inappropriate behaviour instead of academic responding time.

Greenwood et al. (2002) suggest minimising transitions and using:

> . . . the best instructional tasks for promoting academic engagement . . .
> worksheets, paper/pencil, other media (computer), workbooks and readers. (p.
> 338)

These suggested tasks show a preference for individual seatwork activities and do not

include collaborative group strategies.

Research suggesting that tasks should allow for student creativity, control, and collaboration appears to be underpinned by cognitive and psychological understandings of student engagement (Aikenhead, 2003; Bousted & Ozturk, 2004; Di Bianca, 2000; Strong et al., 1995; Wehlage & Smith, 1992; Woodward & Munns, 2003). For example, Di Bianca's (2000, p. 160) work indicates that the quality of student engagement increases when tasks have real world applications, provide opportunities for feedback and student control, and are cognitively demanding, interactive, and enjoyable. Flexible combinations of education and training are also considered beneficial (Asher, 2005). A case study in the UK found that students obtain higher test scores and better levels of engagement when they are allowed more flexible learning options, primarily with industry partners (Asher, 2005).

Those appearing to align with cognitive and psychological understandings of student engagement recommend teaching styles and strategies that contrast with those put forward by Greenwood et al. (2002). Research indicates that students found traditional teaching methods like lectures and individual seatwork less enjoyable and harder to concentrate on and participate in than other more student-centred activities (Di Bianca, 2000). Collaborative group work is often suggested as an engaging approach as it has the potential for both social interaction and cognitive collaboration (Shernoff, 2001).

Other researchers advocate a completely different type of curriculum delivery, one relying heavily on the principles underpinning the video games and media students access outside of school (Gee, 2003; Prensky, 2005). Prensky (2005) argues that today's children need to be stimulated at school in the same ways they are from their media at home; they must be allowed to make lots of split-second decisions, presented

with multiple simultaneous streams of data, and continually challenged with heavy emphasis on mastery (p. 64). Gee (2003) argues that video games provide an exemplary learning framework; within games, players have new techniques and skills introduced slowly and are given multiple opportunities for mastery in order to complete levels of the game. When skills are mastered, students are quickly moved on to more challenging scenarios. While neither of these authors is saying that schools must be transformed into media saturated environments, they are arguing that pedagogy must be revamped in order to make it more compatible with the ways today's students are accustomed to learning and engaging.

Even within the delivery of more traditional curriculum, teacher actions are considered important to student engagement. Studies suggest that teachers can facilitate student engagement by utilising more authentic discourse and asking more genuine questions (Gamoran & Nystrand, 1992; Nystrand & Gamoran, 1991). An autonomous-supportive style of teaching, where teachers facilitate instead of control the class, is also seen as beneficial to student engagement (Gross & Burford, 2006; Reeve, Jang, Carrell, Jeon, & Barch, 2004). For example, students in Gross and Burford's (2006) study said they were most engaged with:

> . . . teachers who personalized learning, had high expectations, but matched those expectations with high levels of individualized support. (p. 338)

Teacher engagement is also considered to be important (Cushman, 2003; Louis & Smith, 1992). For example, Louis and Smith (1992, pp. 120-121) put forward that teachers should engage with the school, students as individuals, pedagogy, and their content area.

Within this research, different understandings of engagement appear to influence how researchers suggest curriculum and pedagogy should be changed to benefit student engagement. Studies appearing to be underpinned by behavioural concepts suggest maximising the amount of time that students spend physically doing educational tasks (Greenwood et al., 2002). However, studies have shown that students' physical involvement may not lead to learning gains (Newmann, 1992b; Nystrand & Gamoran, 1991); participation is only useful if tasks are well-designed to help students achieve learning outcomes.

Research that appears to be underpinned by cognitive and psychological understandings of student engagement indicates that academic tasks must be changed to provide students with more challenge, purpose, and choice (Di Bianca, 2000; Shernoff et al., 2003; Wehlage & Smith, 1992). However, some of these studies rely on little empirical evidence. For example, writings suggesting that school learning should be adopting principles found in electronic games and media (Prensky, 2005; Gee, 2003) present an interesting hypothesis, but these ideas are still primarily theoretical, lacking concrete examples of how such a curriculum could and should be implemented in schools.

Also, existing research results are at times contradictory. For example, while 75% of students in Newmann's (1992a) mixed methods study reported that engaging tasks require a lot of thinking, suggesting that cognitively challenging tasks engage students, Uekawa et al.'s (2001) qualitative study found that students reported the highest levels of engagement with tasks they indicated were "very easy" and "difficult" (p. 6). If challenge is important for engagement, students should not be reporting it on "very easy" tasks. While some inconsistencies may result from the difference in research

designs, these dissimilarities indicate the need for further research into the appropriate level of challenge required for facilitating student engagement.

Similar inconsistencies arise over the use of collaborative strategies. For example, many research studies suggest that collaborative group work facilitates student engagement (Di Bianca, 2000; Shernoff, 2001). However, Huang (2002) found that students viewed as popular and able by peers are better able to engage behaviourally and cognitively in group work than peers with lower perceived status and ability. This indicates that this strategy may not lead to equitable learning opportunities. Far more empirical data are required to substantiate claims about proposed changes to curriculum and pedagogy.

2.5.4 Creating community programs

Creating school and community programs is seen as another way of facilitating student engagement. A wide range of extracurricular activities and programs are suggested to meet student physical (Ashiabi, 2005) and psychological needs (Finn, 1989; Jordan & Nettles, 1999; Lamborn et al., 1992). While participation in extracurricular activities like sports and clubs is considered to affect student engagement positively, paid employment does not appear to have the same benefits (Lamborn et al., 1992). Lamborn et al. (1992, pp. 171-174) correlated long work hours to less time and effort spent on schoolwork, resulting in lower grades.

Some proposed programs focus on fulfilling student physical needs. Students, especially in low-income areas, are believed to disengage from school because of hunger and the anxiety it brings (Ashiabi, 2005). For example, Ashiabi (2005) found that food insecurity was negatively correlated with school engagement both directly and indirectly through health and emotional wellbeing. This research suggests that to

improve student engagement, current programs providing breakfast and lunch for low-income students should be maintained and that further programs must be designed to improve health and emotional wellbeing.

Other programs are aimed at meeting students' psychological needs by providing belonging and success. Participation in extracurricular and community programs has been found to be positively correlated with participation and belonging at school, decreasing the likelihood of early school leaving (Finn, 1989; Mahoney & Cairns, 1997). Jordan and Nettles (1999) found that students who spent much of their time outside of school studying or participating in structured community activities are more engaged and have clearer goal orientations than peers who spend their out of school time "hanging out" with friends. While those who take part in clubs and leadership activities show higher levels of engagement and achievement than those in sports, all appear to develop a higher sense of belonging in the school and community (Lamborn et al., 1992).

Studies reviewed in this section propose that student psychological and behavioural engagement can be increased through student participation in programs developed to meet student physical needs and foster belonging. However, these studies generally use indicators like grades and attendance (Mahoney & Cairns, 1997; O'Brien & Rollefson, 1995) or generic measures of "belonging" (Fullarton, 2002) to substantiate engagement. At present, none have investigated if cognitive engagement is increased through participation in these programs; measures used cannot show if the student engagement generated is increasing student learning.

2.5.5 Commonality among ways of facilitating student engagement

The previous sections examined research suggesting four main ways student engagement can be facilitated. This review identified that understandings of student engagement appear to shape the ways people envision facilitating engagement. Those relying on behavioural understandings suggest changes designed to increase participation (Brooks et al., 2003; Greenwood et al., 2002). Psychological understandings appear to underpin changes meant to increase student belonging at school and interest in the curriculum (Anderson et al., 2004; Brewster & Bowen, 2004; Finn, 1989; Finn & Rock, 1997). Cognitive understandings are connected to curricular reforms aimed at increasing the challenge and complexity of the learning (Di Bianca, 2000; Gamoran & Nystrand, 1992). These differences highlight the influence of conceptions of student engagement on ways engagement is seen as facilitated.

The strongest commonality through this literature is that student engagement is considered best facilitated by meeting individual pupil emotional, physical, and cognitive needs. When developing student skills, supporting learning at the individual's level is seen as helping pupils participate and engage in mainstream education. One-to-one interaction with caring adults is seen as building relationships and meeting students' affective needs. The majority of research on how to improve curriculum and pedagogy suggests that students' individual cognitive and psychological needs should be met by providing students with control, choice, challenge, and support in their academic pursuits. Providing a wide range of community programs for students to become involved in is considered to help meet physical and emotional needs.

Most of the research reviewed in the previous section puts forward the proposition that student engagement will be facilitated most successfully by catering for the unique physical, emotional and intellectual needs of individual learners. It is often acknowledged that ". . . there is not one unique recipe for all students to achieve high levels of learning and development" (Korkmaz et al., 2006, p. 25); this research suggests that considerable flexibility is necessary to cater for all students as they possess a variety of strengths and weaknesses. Authors like Blumenfeld et al. (2005) put forward that the diverse needs of disengaged students cannot be met by one generic intervention or reform; frequent reform steps like raising standards and cutting time and funding for non-academic subjects can further alienate students needing support to engage and achieve academically. Newmann (1992b) suggests that many initiatives fail because they do not explicate how the reform will improve student engagement and learning; most reforms are generic and do not focus on authentic learning, success for all students, and expanding staff roles to include community involvement.

Despite the concerns raised by authors like Newmann (1992b) about the generic nature of current educational reform, governments around the world are creating changes to schooling through initiatives that promise to facilitate student engagement. Like the literature reviewed above, there are a variety of understandings of student engagement found in these government documents. The following section reviews recent government reports, discussion papers, and policy documents to identify the understandings of student engagement underpinning them and ways they suggest this engagement is best facilitated.

2.6 The concept of student engagement's usage within educational policy

While academic understandings of student engagement broadly shape teaching contexts, government policies can mandate change in schools. As government policies influence state school educational practices, which may influence teacher understandings, it is useful to review understandings of student engagement contained within these documents. Combinations of behavioural, psychological, and cognitive conceptions of student engagement are presumed to influence the nature and goals of the policy reforms.

The Queensland government documents that shape the work environments of teacher participants in this study reside within a national and global policy context. Student engagement has become an international focus, as:

> Developing the predisposition of students to engage with learning and the capacity to do so effectively is an important goal of school education. . . . these objectives are becoming increasingly explicit in national education policies. (Organisation for Economic Co-operation and Development & UNESCO Institute for Statistics, 2003, p. 138)

Student engagement is a policy focus as it is thought to alleviate problems caused by disengagement including truancy, underachievement, and early school leaving (Carrington, 2002; Lamb et al., 2000; McMillan & Marks, 2003; Willms, 2003). Supranational groups like the Organisation for Economic Co-operation and Development (OECD) have focused global attention on student engagement, commissioning reports on student engagement in school and in reading (Kirsch, de Jong, Lafontaine, McQueen, Mendelovits, & Monseur, 2002; Willms, 2003). These documents have influenced the policies of many governments (Department for Education and Skills, 2005a; Department of Education, Science, and Training, 2004).

Within Australia, increasing student engagement, especially within populations considered to be "disengaged," has become a priority, evidenced through government reports (Department of Education, Science, and Training, 2002, 2005c; Luke et al., 2003); discussion papers (Fraillon, 2004; Ministerial Council on Education, Employment, Training, and Youth Affairs Taskforce on Indigenous Education, 2001); and policy documents (Ministerial Council on Education, Employment, Training, and Youth Affairs, 2000b, 2001). These national precedents have encouraged Australian state governments to also address these issues in their own reports (Lamb et al., 2004; Ministerial Advisory Committee for Educational Renewal, 2003); discussion papers (New South Wales Department of Education and Training, 2005); policy documents (Department of Education and the Arts, 2004a; Education Queensland, 2003d; Queensland Government, 2002b); and resource materials (Education Queensland, 2001; Hamilton, 2002).

As a comprehensive review of all government reports and policy is outside of the scope of this review, only documents applicable to secondary schooling and written after 1996 are examined as these will be most relevant to current high school teachers. Representative documents have been selected for in-depth review to create a broad context of how the concept of student engagement is being interpreted. This section first establishes the international context where Australian and specifically Queensland policies are situated by examining reports and policies produced by supranational organisations like the OECD. It then demonstrates the congruence between OECD statements and those found in other international government documents. Next, a sample of indicative Australian reports, discussion papers, and policy documents is reviewed and linked to the broader international context. Finally, key Queensland

Government policy documents and reports are examined and related to national and international contexts.

2.6.1 A supranational context: Understandings of student engagement from the OECD

While individual nations face different educational contexts, many have similar problems to address. Supranational organisations like the OECD identify issues common to member countries and use multinational research projects to map how these are manifested within member and non-member countries, using research to suggest strategies for improvement (Centre for Educational Research and Innovation, 2000; Organisation for Economic Co-operation and Development, 2003, 2004a). Recent OECD work has investigated student engagement and established its importance to positive learning and schooling outcomes (Kirsch et al., 2002; Willms, 2003). This research has influenced OECD policy statements. For example, the OECD Policy Brief *Raising the quality of educational performance in schools* (2004b) draws on the results of several reports (Kirsch et al., 2002; Willms, 2003) stating that:

> Developing the predisposition of students to engage in learning and the capacity to do so effectively are important objectives, especially with an eye to fostering lifelong learning . . . (p. 7)

Policy statements like this often influence member countries' policies and agendas.

Within OECD documents, the concept of student engagement is primarily found in documents relating to literacy (Kirsch et al., 2002; Organisation for Economic Co-operation and Development, 2003; Organisation for Economic Co-operation and Development & UNESCO Institute for Statistics, 2003) and student belonging and participation in school and training (Organisation for Economic Co-operation and Development, 2000; Rumberger & Lamb, 1998; Willms, 2003). Within OECD reports

and policy statements, student engagement appears to have been consistently constructed as a two-dimensional concept with behavioural and psychological components.

Within OECD reports addressing involvement in school, post-secondary training, and work, student engagement is conceptualised as pupil participation and sense of belonging (Organisation for Economic Co-operation and Development, 2000; Rumberger & Lamb, 1998; Willms, 2003). Typical of this group is the OECD report *Student Engagement at School: A Sense of Belonging and Participation- Results from PISA 2000* (Willms, 2003). Student engagement is considered to be the "... *disposition* towards learning, working with others and functioning in a social institution" (Willms, 2003, p. 52). Within the report, student engagement refers "... to the extent to which students identify with and value school outcomes and participate in academic and non-academic activities" (Willms, 2003, p.8). The report suggests that behavioural and psychological aspects of engagement like belonging and participation are important outcomes in their own right as they reflect a disposition towards learning and the ability to function within social institutions.

The quantitative research undertaken as part of this OECD report found that internationally, 25% of students indicated a low sense of belonging (20.7% in Australia) and 20% had a high rate of absenteeism (18.3% in Australia) (Willms, 2003). Some students categorised as "disengaged" had moderate to high literacy levels, indicating that alienation from school goals is not always caused by school failure. The authors put forward that the data variation between schools indicates that policy and school culture can raise engagement. The report concludes by suggesting that student engagement can

be facilitated through a strong discipline climate, good student-teacher relationships, and high academic expectations.

However, its research design limits its explanatory power. While a large sample of 224,058 15-year-old students from 43 countries is used, the research does not utilise measures that can establish the presence of student engagement as defined by the report. Sense of belonging is assessed from responses to six statements on a four-point scale including: "I feel like I belong; I feel lonely; I do not want to go to school; I often feel bored at school" (Willms, 2003, p. 64). Participation is measured using student tardiness and truancy records from the two weeks prior to the survey. Neither indicator can accurately measure student engagement as defined in the report; school attendance does not show the extent to which students "participate in academic and non-academic activities" and the questions asked do little to illuminate the extent to which "students identify with and value school outcomes" (Willms, 2003, p.8).

The behavioural and psychological measures of student engagement used in the reports discussed above (Organisation for Economic Co-operation and Development, 2000; Rumberger & Lamb, 1998; Willms, 2003) are similar to those used by the OECD when investigating student engagement in literacy practices (Kirsch et al., 2002; Organisation for Economic Co-operation and Development, 2003; Organisation for Economic Co-operation and Development & UNESCO Institute for Statistics, 2003). Within OECD reports, the ". . . concept of 'engagement' in reading . . . encompasses both reading practices and attitudes toward reading" (Organisation for Economic Co-operation and Development, 2003, p. 100). Reading engagement is defined as:

> . . . the time that students report reading for pleasure, the time students spend reading a diversity of material, and students' interest in, and attitudes towards,

reading. (Organisation for Economic Co-operation and Development & UNESCO Institute for Statistics, p. 127)

Unlike the previous set of reports (Organisation for Economic Co-operation and Development, 2000; Rumberger & Lamb, 1998; Willms, 2003), these reports do mention that learned cognitive reading strategies and "reading practices" are important for gains in literacy, citing that "cognitive and non-cognitive components of reading engagement clearly go hand in hand" (Kirsch et al., 2002, p. 121); however, these cognitive strategies are not examined or measured through the research conducted. Instead, the research focuses only on the behavioural and affective aspects of student reading experiences. For example, in *Reading for change: Performance and engagement across countries* (Kirsch et al., 2002), reading engagement was measured through student responses ". . . to questions covering time spent on reading, interest in and attitude towards reading, and diversity and content of reading" (p. 107). These measures only focus on student interest and taste in reading and capture self-reported quantification about time spent reading; they do not indicate what strategies students use while reading or the reasons why students read.

While the OECD uses some broad definitions of student engagement within its work, these definitions appear to be based on primarily behavioural and psychological understandings of this concept (Organisation for Economic Co-operation and Development, 2000; Rumberger & Lamb, 1998; Willms, 2003). Within OECD research, these broad understandings are translated into narrow research measures, raising questions about what the empirical findings can say about student engagement as defined in the documents (Kirsch et al., 2002; Willms, 2003). However, despite these issues, there is considerable evidence that OECD understandings influence government

policies and agendas throughout the world; this relationship will be explored in the subsequent section.

2.6.2 An international context: Linking OECD understandings of student engagement with those in international government documents

Within OECD documents, student engagement is examined within whole-school and literacy contexts. While some international governments do discuss student engagement in literacy (Armbruster, Lehr, & Osborn, 2003; Department for Education and Skills, 2005c; Office for Standards in Education, 2001), this concept is mainly discussed within documents relating to student retention, attendance, and behaviour (Finn, 2006; GHK Consulting, Holden McAllister Partnership, & IPSOS Public Affairs, 2004; Higham & Yeomans, 2006; Market and Opinion Research International, 2004; University of Birmingham & Institute of Education, 2006). As documents of this second type are more prevalent, they will be the focus of this section.

The influence of the OECD's two-dimensional construct of student engagement can be seen in the government reports and policies of many English-speaking member countries like the United Kingdom and the United States. For example, the United States report *The adult lives of at-risk students: The roles of attainment and engagement in high school* (Finn, 2006) uses an almost identical definition of student engagement as Willm's (2003) report. Student engagement is conceptualised as having ". . . a behavioural component, participation, and an affective component, sometimes called identification with school" (Finn 2006, p. 8). Within the empirical research conducted as part of this report, four measures were used: ". . . attendance, classroom behaviour, extracurricular participation, and students' perceptions of the usefulness of school subjects" (Finn, 2006, p. vii). Three out of four of these measures relate to aspects of

behavioural engagement; only one, "student perceptions," acknowledges any psychological aspects of engagement. These measures ignore cognitive aspects of engagement completely. This focus on behavioural aspects is representative of many other international government reports (Campbell, Voelkl, & Donahue, 2000; O'Brien & Rollefson, 1995).

Other reports appear to utilise aspects of psychological engagement (Bhabra, Dinos, & Ghate, 2006; Office for Standards in Education, 2002), congruent to Willms' (2003) claim that developing a sense of belonging with an institution is a desirable outcome of student engagement. For example, in the British report *Young people risk and protection: A major survey of secondary schools in On Track areas* (Bhabra et al., 2006), one premise for the research was that:

> Satisfaction with school, as a measure of the extent to which children may feel attached to and engaged with school, has been identified as a protective factor in relation to poor outcomes in later life. (p. 131)

Bhabra et al. (2006) constructed student engagement in primarily psychological terms, discussing student attachment and satisfaction with school. Their empirical research also used psychological measures. In a survey:

> . . . pupils were asked five questions that explored their views of school and school subjects, designed to tap levels of satisfaction with school, as a proxy for attachment to and engagement with school. Questions were related to interest in school subjects, the importance of school for later life, feelings of enjoyment of school and efforts at school work. (Bhabra et al., 2006, p. 82)

In this study, most pupils report high levels of engagement, although older students record lower levels than younger pupils. These measures show higher levels of student engagement than OECD research indicates (Willms, 2003). The report suggests that student engagement is best facilitated by offering emotional support to students considered disengaged.

Most international government reports drew on similar understandings and measures of student engagement as those put forward by the OECD, with few seeming to utilise aspects of all three types of student engagement. The United States National Research Council and Institute of Medicine report entitled *Engaging schools: Fostering high school students' motivation to learn* (2004) is the only one that appears to investigate aspects of behavioural, psychological, and cognitive engagement. The report is based on a scholarly review of literature and gives recommendations on how to best go about:

> . . . motivating adolescents to be engaged - cognitively, behaviourally, and emotionally - in their coursework and in the broader array of school-based activities. (National Research Council & Institute of Medicine, 2004, p. 9)

This report contains in-depth analysis of aspects relating to cognitive, behavioural, and psychological engagement. It recommends that smaller schools and learning communities should be established, testing should be holistic and based on problem solving, tracking should be abolished, schools should be more involved with students' communities, and student learning should be more closely monitored to create optimal academic challenge.

Many policy documents and discussion papers based on the reports discussed above send mixed messages about the intended outcomes of student engagement (Department for Education and Skills, 2004, 2005a, 2005b). For example, the white paper *Higher standards, better schools for all: More choice for parents and pupils* (Department for Education and Skills, 2005b) states that:

> Well-planned and well-delivered lessons inspire and engage pupils, minimizing the risk that a minority will lose interest and drift into low-level disruption. There is no excuse for such bad behaviour, but it is also every school's responsibility to ensure its pupils receive a tailored education, matching their individual strengths and weaknesses. Our proposals to personalise learning . . . are an important plank in our overall strategy to instil good behaviour in every school. (p. 89)

This passage is representative of how many international government policies utilise the concept of student engagement (Department for Education and Skills, 2004, 2005a, 2005b). While this passage talks about ways teachers can "inspire and engage pupils" and "personalise learning" to match student "individual strengths and weaknesses," it suggests that the most important outcome of student engagement is good behaviour. Increasing engagement will prevent students from "losing interest and drifting into low-level disruption," improving the chance of instilling "good behaviour in every school."

Many policies talk explicitly about engaging students in learning, but in these the primary goal of student engagement is often school retention not student improvement (Department for Education and Skills, 2004, 2005a). For example, *14-19 Education and Skills: White paper* (Department for Education and Skills, 2005a) states:

> The burning challenge we face is to transform this picture, so that every young person is engaged by the learning opportunities they have, many more continue in education, and dropping out by the age of 17 becomes increasingly rare. (p. 24)

While this passage starts off talking about making sure "every young person is engaged by learning opportunities," student "learning" is not the explicit goal. The goal is to have more "continue in education," preventing students from "dropping out by the age of 17." This kind of engagement is believed to be facilitated by increasing vocational education opportunities (Department for Education and Skills, 2005a; Higham & Yeomans, 2006).

Internationally, the concept of student engagement is primarily discussed in conjunction with issues such as student attendance, retention, and behaviour (Finn, 2006; GHK Consulting et al., 2004; Higham & Yeomans, 2006; Market and Opinion Research International, 2004; University of Birmingham & Institute of Education, 2006). Like the

OECD reports (Kirsch et al., 2002; Willms, 2003), most government reports and policies on student engagement are underpinned by behavioural and psychological understandings of engagement, with few including cognitive aspects of engagement in their evaluation (National Research Council & Institute of Medicine, 2004). Many policy documents send mixed messages about the outcomes of student engagement; most appear directed toward improving student behaviour and attendance (Department for Education and Skills, 2004, 2005a, 2005b). Student learning appears to be an implicit goal of participation and school completion, a trend that continues in many Australian government documents.

2.6.3 A national context: Concepts of student engagement in Australian government documents

Like the international reports and policies reviewed in the previous section, within Australia the concept of student engagement is often used when discussing student attendance, retention, and behaviour, especially in populations considered to be disengaged like boys, Indigenous students, middle schooling students, and those transitioning between secondary schooling and work (Department of Education, Science, and Training, 2002, 2003b, 2004, 2005b). Within Australian government reports, many relating to literacy and middle schooling appear to acknowledge the importance of aspects of cognitive engagement (Department of Education, Science, and Training, 2003a; Luke et al., 2003; Pendergast et al., 2005), while those dealing with vocational and Indigenous education seem to align with the psychological and behavioural understandings found in most international documents (Fraillon, 2004; Fullarton, 2002; Marks, Fleming, Long, & McMillan, 2000; Strategic Partners & Centre for Youth Affairs and Development, 2001). Although many reports appear to acknowledge that student engagement is a three-dimensional concept, this complex

understanding is seldom found in Australian government discussion papers and policy documents.

Within government reports, many addressing literacy, numeracy, and middle schooling discuss what they term as "intellectual" or "cognitive" engagement (Department of Education, Science, and Training, 2003a; Luke et al., 2003; Pendergast et al., 2005). This group of documents advocates for ". . . a stronger and more sustained focus on the intellectual engagement and intellectual demand expected of students" (Luke et al., 2003, p. 5). Typical of this group is Luke et al.'s report (2003) *Beyond the middle: A report about literacy and numeracy development of target group students in the middle years of schooling*. It suggests the need for:

> . . . a more systematic emphasis on intellectual demand and student engagement in mainstream pedagogy that moves beyond . . . current foci on increased participation rates and basic skills. (Luke et al., 2003, p. 8)

The authors argue that pedagogical reform is necessary to engage learners in cognitive processes and advocate for authentic learning and assessment opportunities instead of standardised testing. They acknowledge that this way of facilitating student engagement goes against international trends focused on "participation rates and basic skills" and suggest that increasing "intellectual demand" is more likely to lead to improvements in student learning.

Luke et al.'s (2003) report bases its recommendations on reviewed literature and empirical research. It maps current strategies for literacy and numeracy in middle schooling found in Australian state government reports and policy documents. It then presents data from classroom observations on how implemented policies and programs facilitate students' "intellectual engagement," using Education Queensland's *Productive*

Pedagogies (2001) as an analytical framework. Based on their scholarly review and empirical research, they suggest using whole-school pedagogical reform to improve outcomes for all learners instead of practices like tracking. Collaboration within and between schools is considered necessary for successful implementation of whole-school literacy and numeracy strategies. These recommendations are consistent with other international government reports that appear aligned with three-dimensional understandings of student engagement (National Research Council & Institute of Medicine, 2004).

Many of Luke et al.'s (2003) ideas are moved forward in *Developing lifelong learners in the middle years of schooling* (Pendergast et al., 2005). Pendergast et al. (2005) review literature and conduct school case studies and student surveys to investigate how middle schooling can be used to increase engagement and encourage lifelong learning. Their research indicates that:

> . . . there is a need to "up the ante" intellectually in schools, there is a need for the learning to be engaging, interesting and connected to things that matter in the world of students. Increasingly, "fun" is seen as an important if accidental by-product of programs, and "pleasure" and "satisfaction" can, and should be derived from sustained engagement in interesting learning activities. (Pendergast et al., 2005, p. 58)

Here, they suggest that students will be more engaged in school and learning if there is intellectual challenge; fun, pleasure, and satisfaction should be the by-products, not the focus, of school experiences.

While the reports reviewed above appear to focus on cognitive aspects of student engagement, putting forward the argument that if students are intellectually challenged, then social and behavioural gains will also occur, other reports place more importance on psychological aspects of engagement (Fraillon, 2004; Fullarton, 2002; Marks et al.,

2000; Strategic Partners & Centre for Youth Affairs and Development, 2001). This group of reports is focused primarily on issues of school retention, citing student disaffection as a major cause of early school leaving and disengagement.

For example, Fullarton's (2002) report *Student engagement with school: Individual and school-level influences* indicates that student involvement in school and community activities leads to higher school completion rates and levels of satisfaction with school. Student engagement is considered evidenced by participation in extracurricular school activities, drawing on Finn's (1989) taxonomy of participatory behaviours. This participation is seen as facilitating students' sense of belonging with the school and community, considered to be an important school outcome here as in OECD and international reports (Bhabra et al., 2006; Finn, 2006; Willms, 2003). In this report, quantitative research is used to measure student engagement. The study gathers survey data on rates of participation in extracurricular activities and compares these to other variables like student demographic characteristics, levels of achievement, and sense of belonging to establish that extracurricular involvement does appear to increase student engagement as conceptualised in the study.

While some reports draw on psychological understandings of student engagement, many associate engagement with participation, especially when discussing early school leaving, post-secondary experiences in the workplace, and Indigenous students (Lamb et al., 2000; Lamb & Rumberger, 1999; McMillan & Marks, 2003). For example, the report *School leavers in Australia: Profiles and pathways* (McMillan & Marks, 2003) states that young people need to be ". . . engaged in some form of education or training" (p. 87). McMillan and Marks (2003) explain that:

> Disengagement from school is not the same as disengagement from education, as evidenced by the level of participation by non-completers in post-school education and training. (p. 87)

Within this document, student engagement is undefined as a concept, but is associated with "participation"; when pupils are participating in school or training, they are considered engaged.

Student engagement is also constructed primarily in behavioural terms within reports about Indigenous students (Department of Education, Science, and Training, 2002, 2005b; Ministerial Council on Education, Employment, Training, and Youth Affairs Taskforce on Indigenous Education, 2000b; Powers and Associates Pty. Ltd, 2003). The goal of many of these reports is to come up with ways ". . . to re-engage and retain more Indigenous students to Year 12, or its vocational education equivalent" (Department of Education, Science, and Training, 2005b, p. iii), situating these reports within literature looking at engagement as a way to prevent early school leaving.

Within many reports, data on school attendance and retention, along with anecdotal evidence of learning gains, are used to measure student engagement rather than appropriate empirical measures of learning gains. For example, in the report *Breaks in the road: Evaluation of the Indigenous youth partnership initiative (IYPI) final report* (Powers and Associates Pty. Ltd, 2003), the authors explain that:

> . . . improvements in school attendance rates are a reasonable corollary to improvements in retention, and may be more in keeping with IYPI aims as an indicator of educational engagement. (p. 42)

This statement constructs "educational engagement" as "school attendance rates" and "retention," a primarily behavioural concept of student engagement. The authors suggest that vocational education is one way of facilitating Indigenous student

engagement as this learning is more contextualised within their world; this connection is seen as making students more likely to attend school and participate in classes.

Unlike the work discussed earlier within this section (Luke et al., 2003; Pendergast et al., 2005), Powers and Associates Pty. Ltd. (2003) advocate for early establishment of vocational education tracks within schools, arguing that:

> The reasons for these barriers to early access to accredited VET in schools are largely based on an aversion to "streaming" students too early in their education, thereby restricting choices and pathways. While this is a legitimate concern, there is clearly a need to ensure that educational systems remain responsive to individual needs – put simplistically, premature streaming may be a lesser evil than the student's total disengagement from education. (p. 92)

Powers and Associates Pty. Ltd. (2003) suggest that streaming students into vocational pathways is a viable option for Indigenous students who do not wish to attend university. Vocational pathways are perceived as helping students develop job skills and continue in some form of learning instead of disengaging completely from education (Department of Education, Science, and Training, 2002, 2003c).

While some Australian government reports appear to utilise cognitive understandings of student engagement (Department of Education, Science, and Training, 2003a; Luke et al., 2003; Pendergast et al., 2005), almost all proposed reforms in Australian discussion papers and policy documents are designed to increase aspects of psychological or behavioural engagement. While some policies do relate engagement to student learning (Department of Education, Science, and Training, 2004, 2005a; Ministerial Council on Education, Employment, Training, and Youth Affairs, 2001, 2005), most dealing with vocational, male, and Indigenous education make only implicit links between student engagement and learning, connecting engagement to behavioural indicators like attendance and retention (Department of Education and the Arts, 2005b; Department of

Education, Science, and Training, 2003b, 2004). For example, in his speech,

Underpinning prosperity: Our agenda in education, science and training, Nelson

(2005), the Minister for Education, Science, and Training, outlined government funding

of $103.9 million to:

> . . . improve the career choices of young people and increase levels of student engagement and school retention by adding professional careers advice to each Local Community Partnership. (p. 9)

Here, career advice and integration between schools and communities is seen as

potentially raising "school retention."

Within policy on Indigenous students, student engagement appears conceptualised as

participation and belonging (Ministerial Council on Education, Employment, Training,

and Youth Affairs, 2000b; Ministerial Council on Education, Employment, Training,

and Youth Affairs Taskforce on Indigenous Education, 2001). Within these documents,

"engagement is regarded as the most influential factor in school improvement"

(Ministerial Council on Education, Employment, Training, and Youth Affairs Taskforce

on Indigenous Education, 2000a, p. 23). Discussion papers suggest that it is important to

". . . ensure continuing participation and engagement in education and training" for

Indigenous youth (Ministerial Council on Education, Employment, Training, and Youth

Affairs Taskforce on Indigenous Education, 2001, p. 17). Within discussion papers,

contextualising learning in familiar settings is seen as increasing the likelihood of

participation.

Policy statements also utilise behavioural and psychological understandings of student

engagement (Ministerial Council on Education, Employment, Training, and Youth

Affairs, 2000a, 2000b). For example, in *A model of more culturally inclusive and*

educationally effective schools (Ministerial Council on Education, Employment,

Training, and Youth Affairs, 2000a), it states:

> Integral to engagement is relationships: teachers with students, teachers with each other, teachers with parents, the school with the community, students with students and the student with the curriculum. (p. 3)

Here, a complex system of "relationships" is seen as the basis of engagement.

Behavioural outcomes are sought as a result of these relationships. For example, another

related policy articulated the goal of:

> . . . enrolling all compulsory-aged Indigenous children and expecting all Indigenous children to attend school regularly, be actively engaged and participate in a meaningful and confident manner. (Ministerial Council on Education, Employment, Training, and Youth Affairs, 2000b)

Although engagement is based on "relationships," students must "attend school

regularly" and "participate" to be considered engaged.

Within Australian government reports, student engagement appears to be constructed as

both two- and three-dimensional concepts. Reports on literacy, numeracy, and middle

schooling seem to draw on cognitive understandings of engagement, advocating for

pedagogical reform to increase intellectual challenge and the elimination of student

streaming (Department of Education, Science, and Training, 2003a; Luke et al., 2003;

Pendergast et al., 2005). Reports on vocational education and Indigenous education

appear to align with behavioural and psychological understandings, endorsing streaming

and programs designed to facilitate interaction between the school and community

(Fraillon, 2004; Fullarton, 2002; Marks et al., 2000; Strategic Partners & Centre for

Youth Affairs and Development, 2001).

At a policy level, almost all documents utilise psychological and behavioural understandings of engagements, with only implicit reference to cognitive aspects within reform (Department of Education, Science, and Training, 2004; Ministerial Council on Education, Employment, Training, and Youth Affairs, 2000a, 2000b; Ministerial Council on Education, Employment, Training, and Youth Affairs Taskforce on Indigenous Education, 2001). By using primarily psychological and behavioural understandings of student engagement, these policies reflect the trends apparent in the global context (Finn, 2006; Willms, 2003).

2.6.4 A state context: Student engagement in Queensland government documents

While the supranational, international, and national documents reviewed in previous sections have little direct impact on the teaching contexts of participants in this study, they influence the policies put forward by the Queensland Department of Education and the Arts and its subsidiary, Education Queensland. The previous sections have established that nationally and internationally, while some government reports appear to work from a three-dimensional conception of student engagement, most government reports, discussion papers, and policies are based on primarily behavioural and psychological understandings of engagement.

Within Queensland, reports seem to work from a three-dimensional understanding of student engagement, including cognitive, psychological, and behavioural aspects. Student engagement is considered within a range of contexts including middle and senior schooling, literacy, remote and rural education, vocational education, and Indigenous education. Policy documents put forward a more complex understanding of student engagement than their international counterparts, although the concept is more

narrowly defined in policies related to Indigenous and rural and remote education. This section will begin by reviewing government reports on middle and senior schooling, literacy, and Indigenous education. It will then examine a range of government discussion papers and policies in these areas, comparing these to their national and global counterparts.

The middle years of schooling, when students are between 9 and 14 years old, has become a major government focus as research suggests disengagement with school begins in upper primary school (Cumming, 1996). Within reports discussing middle schooling, student engagement is constructed in primarily psychological and cognitive ways (Ministerial Advisory Committee for Educational Renewal, 2003; Pitman et al., 2002). For example, the report *Middle phase of learning: A report to the minister* (Ministerial Advisory Committee for Educational Renewal, 2003) draws on research suggesting that:

> . . . students in the Middle Phase of Learning also need to be challenged intellectually to remain engaged and school activities need to be relevant, purposeful and connected to students' experience outside of school. (p. 9)

Within this report, engaged students are thought to need to be "challenged intellectually" in learning that is "relevant," "purposeful," and "connected to student experience." These three qualities are also considered important for learning in reports on gifted and talented education (Freebody, Watters, & Lummis, 2003).

Position Statement 5 of this report (Ministerial Advisory Committee for Educational Renewal, 2003) indicates that middle school reform requires creating an ethos in which:

- Teachers know each student in their care and are responsive to individual needs; teachers reflect on their pedagogy and its effectiveness (or otherwise) in engaging students in learning that is relevant, challenging, and enjoyable.

- Students' achievement in literacy and numeracy is monitored across the middle phase of schooling, with timely intervention strategies matched to classroom practice to ensure progress in this area for all students.

- Intellectually demanding and meaningful curriculum, effective pedagogy, and assessment strategies are aligned.

- Time, space, teaching expertise, and other resources such as ICTs are used flexibly to best meet the needs of students in this phase of schooling. (p. 15)

This position statement suggests pedagogical changes for improving student engagement as it focuses on areas like student-teacher relationships, curriculum reform, and flexible use of resources, similar to other Australian reports (Luke et al., 2003; Pendergast et al., 2005).

However, embedded within this report is a focus on "monitoring," indicating a move towards increasing accountability. The report suggests the need for ". . . seamless transfer of information on student engagement and academic achievement within and across primary and secondary schools within the sector. . ." (Ministerial Advisory Committee for Educational Renewal, 2003, p. 6). It is unclear within the document what measures would be used to report "information on student engagement."

Reports on senior schooling carry mixed understandings of student engagement. While some seem to focus primarily on cognitive and psychological aspects (Pitman et al., 2002), others appear to draw on psychological and behavioural understandings (Lamb et al., 2004). For example, Lamb et al's (2004) report *Staying on at school: Improving student retention in Australia - Report for the Queensland Department of Education and the Arts* seems to use primarily behavioural and psychological concepts of engagement. Lamb et al. (2004) examine causes of disengagement and early school leaving, conducting a literature review and empirical research project to construct models of how

student experience influences school retention. In their report, they differentiate between school engagement and academic engagement, two of the four dispositions they suggest lead to school completion. Academic engagement is the disposition towards preparation and application through completing tasks like homework. School engagement includes student attendance, behaviour, participation in school activities, and attitudes towards the school and teachers.

The report looks primarily at the employment outcomes of retention. It identifies that "… higher retention does not automatically confer benefits either on individuals or on communities" suggesting that "quality retention" where students are prepared for a transition into employment should be the focus (Lamb et al., 2004, p. 150). Lamb et al. (2004) argue that schools should promote all pathways leading to further education or full-time employment as:

> Whether or not these alternatives are equivalent in a cognitive sense to the senior certificate is arguably not the issue, but rather whether they produce valuable and perceptible benefits that build on school. (p. 152)

The authors suggest that for many students vocational pathways leading to employment may be more engaging and socially "valuable" than traditional education pathways not linked directly with full-time employment. Whether or not pathways are "equivalent in a cognitive sense" is considered unimportant.

Another report on senior schooling looks at using cognitive challenge to engage and retain young people at school (Pitman et al., 2002). Unlike the previous report, *The senior certificate: A new deal* (Pitman et al., 2002) focuses on the quality of the students' learning experience instead of its employment outcomes, arguing that worthwhile learning:

- is appropriate to the Senior Stage of Education

- engages students in purposeful and intellectually stimulating activities. (p. 52)

While some worthwhile learning may help students achieve employment outcomes, employment is not seen as the sole purpose of education. Student engagement is considered to be facilitated through "purposeful and intellectually stimulating activities" (Pitman et al. 2002, p. 52). The report suggests that the intellectual challenge, connectedness, and purposefulness of student learning will be increased through the implementation of new pedagogies, similar to the conclusions reached by other reports that appear to draw on three-dimensional understandings of student engagement (Luke et al., 2003; National Research Council & Institute of Medicine, 2004; Pendergast et al., 2005). It argues that a new, flexible Senior Certificate is necessary so that a broad range of learning within different environments can be recorded, acknowledging that individual pathways best meet learner needs.

While reports on literacy also focus on raising the intellectual quality of student experiences, these suggest implementing standardised whole-school approaches instead of personalised instruction (Education Queensland, 2000a, 2000b). The proposed whole-school approach focuses around:

> . . . listening, speaking, reading, viewing and writing that engages students in cognitively demanding and intellectually rich work. (Education Queensland, 2000a, p. 7)

The authors suggest that multiliteracies, especially those based around emergent modes of technology, are an important but often ignored part of "literacy."

While the authors clarify that the implementation of any approach requires teacher innovation and flexibility to meet student needs, measures of accountability like

standardised testing suggested in the document indicate a push towards increasing the

uniformity of teaching practices (Education Queensland, 2000a). These measures are

logical considering the stance taken in the report that:

> . . . time on task, and high levels of student engagement can lead to improved
> educational results, even where those outcomes are fairly traditionally and
> narrowly defined. (Education Queensland, 2000a, p. 8)

Many of the measures suggested by this report to improve "accountability" like

standardised testing continue to be "fairly traditionally and narrowly defined," despite

proposed revisions to such tests.

Within reports on Indigenous education, student engagement seems to be constructed in

primarily behavioural and psychological ways, with the onus placed on the teachers and

administrators of the school (Ministerial Advisory Committee for Educational Renewal,

2004). For example, in *Report on Indigenous education* (Ministerial Advisory

Committee for Educational Renewal, 2004) an accountability matrix is written to divide

responsibility for improvement among educational stakeholders. It asks teachers to

answer questions like:

> To what extent is your performance as a teacher contributing to Indigenous
> underachievement/absenteeism/lack of engagement in the classroom?
> (Ministerial Advisory Committee for Educational Renewal, 2004, p. 16)

Here "lack of engagement" is tied to behavioural aspects like "underachievement" and

"absenteeism," both of which are partially blamed on the teacher. This construct is

similar to those used in national reports on Indigenous education (Department of

Education, Science, and Training, 2002, 2005b; Ministerial Council on Education,

Employment, Training, and Youth Affairs Taskforce on Indigenous Education, 2000b;

Powers and Associates Pty. Ltd, 2003).

Within Queensland discussion papers and policies, engaging students in learning is frequently cited as an educational goal (Department of Education and the Arts, 2004a, 2005a, 2005b; Education Queensland, 2005; Queensland Government, 2002a, 2002b). The most prominent of the current policies relating to secondary schooling is *Education and Training Reforms for the Future* (ETRF), which contains directives about both middle and senior schooling. The *Strategic plan 2005-2009* (Department of Education and the Arts, 2005b) explains that:

> These reforms [ETRF] will prepare young people for school, engage, challenge and support students through the early and middle phases of learning, improve access to ICT skills for students and teachers and expand senior schooling pathways that lead to further education, training and work. (p. 23)

These reforms are designed to "engage," "challenge," and "support" students, showing acknowledgement of cognitive and psychological aspects of engagement.

While ETRF reforms include initiatives on preparing children for school and using technology to enhance engagement in learning (Education Queensland, 2004; Queensland Government, 2002b), this review will only address middle and secondary reforms as they are most relevant to high school education. The middle schooling part of the reform focuses primarily on pedagogical changes. The discussion paper *The middle years of schooling in Queensland: A way forward* (Carrington, 2002) clearly indicates that engaging students cognitively is a focus of reform, explaining that:

> Students in the compulsory years may well be physically present in classrooms, but too many of them are "absent" in ways that range from passivity and disinterest through disruptive behaviour and violence through to truancy and early leaving. (p. 11)

Within this discussion paper, while attendance and school completion are viewed as important, there is a focus on what actually happens at schools, asking educators to make school intellectually challenging and connected to student life experiences. It indicates that while current students may be "physically present" in their education and

training programs, they may still be "absent" and resistant to learning; increasing

cognitive and psychological engagement appears to be a priority.

The policy documents and implementation resources on middle schooling maintain a

focus on cognitive engagement (Education Queensland, 2003c, 2003d). In *See the*

future: The middle phase of learning state school action plan (Education Queensland,

2003d)*,* there is an explicit emphasis on pedagogy, underpinned by the understanding

that ". . . students in the Middle Phase of Learning need to be challenged intellectually

to remain engaged" (p. 4). Within middle schooling reforms, the focus ". . . is on student

engagement and achievement rather than physical structures or setting up 'middle

schools'" (Education Queensland, 2003d, p. 4). The policy calls for lower class sizes,

integration of subject areas through combined planning time, emphasis on student

achievement and accountability, and internal restructuring to create communities of

learners that foster belonging.

The senior schooling component of ETRF aims to smooth students' transitions from

school to work or further study by providing flexible education and training pathways

and a new senior certificate that recognises both vocational and academic learning. The

changes this reform proposes are primarily structural (Office of Youth Affairs

Department of Education and Training & Education Queensland, 2002; Queensland

Government, 2002a, 2002b). Within the Senior Phase of Learning, the aim:

> . . . is to ensure that young people embarking on their Senior Phase of Learning
> have the grounding to be able to achieve success in their chosen path and are
> given every opportunity to engage in a personally rewarding program of studies.
> (Queensland Government, 2002b, p. 16)

These reforms include the creation of a new Senior Certificate that records both

academic and vocational learning. Students also complete a new Senior Education and

Training Plan in year 10, designed to get students to set career goals. The *Youth Participation in Education and Training Act of 2003* (Queensland Government, 2003) is also tied to these reforms. This law requires young people to be involved in full-time education, work, or training until the age of 17 or until appropriate qualifications have been obtained, similar to reforms being put into place in the United Kingdom (Department for Education and Skills, 2005a).

While ETRF reforms appear to draw on primarily cognitive and psychological understandings of student engagement, some aspects of the middle and senior schooling reforms do not reflect these complex understandings. For example, while the *Youth Participation in Education and Training Act of 2003* (Queensland Government, 2003) is part of a broader agenda of creating youth pathways tailored to students, the Act itself mandates attendance in educational programs unless the student can find work. While having students involved in some form of learning or "earning" until the age of 17 is a worthwhile goal, behavioural engagement in the form of attendance still appears to be a primary intent of the reforms, important enough to mandate attendance by law.

The push for further accountability and reporting also seems potentially incongruent with some of the stated policy aims. For example, *See the future: The middle phase of learning state school action plan* (Education Queensland, 2003d) mandates that data on student engagement be recorded, stating that "assessment and reporting requirements and accountability for student performance and engagement will be strengthened in state schools" (p. 9). However, it is not specified within these documents how "engagement" would be assessed and reported. Other Queensland policies appear to recommend standardised testing and academic results as ways of "assessing" (Education

Queensland, 2000a, 2000b). These types of "assessment" are incongruent with personalised learning.

A focus on assessing and reporting student engagement is concerning in light of some Education Queensland published research on the ETRF reforms (Department of Education and the Arts, 2004b; Education Queensland, 2003a, 2003e). For example, research conducted to gather preliminary student responses to the ETRF reforms used narrow measures, seemingly inconsistent with understanding of student engagement found in the policy documents. Middle schooling students were asked the following two questions "regarding maintaining students' engagement in learning":

1. To what degree are the current learning opportunities at your school relevant and interesting to you?

2. What can we do to make sure that young people stay interested in learning and do well in the middle phase of schooling? (Education Queensland, 2003a, p. 16)

Here the interview questions suggest that engagement in learning is a function of how relevant and interesting the student's "learning opportunities" are. The focus of these questions appears to be on psychological aspects of student engagement instead of the cognitive understandings discussed in the documents (Carrington, 2002; Education Queensland, 2003c, 2003d). This research highlights the importance of using appropriate measures of student engagement, a point already made when analysing other reports about this concept (Kirsch et al., 2002; Willms, 2003).

While documents relating to ETRF appear to utilise primarily cognitive and psychological understandings of engagement, definitions of student engagement put forward in other Queensland documents do not appear to align with these understandings. For example, *Productive Pedagogies* (Education Queensland, 2001),

the pedagogical framework used within Queensland state schools, includes academic engagement as a dimension of a supportive classroom environment. Academic engagement is identified by:

> . . . on-task behaviours that signal a serious psychological investment in class work; these include attentiveness, doing the assigned work, and showing enthusiasm for this work by taking initiative to raise questions, contribute to group activities, and help peers. (Education Queensland, 2001, p. 1)

Unlike the descriptions of student engagement in other documents, indicating a cognitive focus, this definition relies on behavioural and psychological markers like "on-task behaviours" and "enthusiasm." While intellectual challenge and curriculum connectedness are also part of the greater framework, these are not considered part of academic engagement as defined by the document.

Other ways of facilitating student engagement are also present in Queensland policies. For example, current literacy policies mandate whole-school approaches and more accountability, primarily through standardised testing (Department of Education and the Arts, 2006; Education Queensland, 2002a, 2002b). Within this set of policies, meeting standards is the primary focus, not student engagement. For example, an aim within literacy learning is:

> . . . to assess, track and improve literacy learning outcomes for all students in the context of diverse backgrounds and abilities. (Department of Education and the Arts, 2006, p. 3)

This statement reflects policy focus on "assessment" and "tracking," as raising accountability may help "improve literacy outcomes."

While the policies acknowledge that "there is no one approach that will meet the needs of all students" (Department of Education and the Arts, 2006, p. 2), there is a major focus on "whole-school literacy planning" with an emphasis on improving standardised

test scores. For example, the *Literacy the key to learning: Framework for action 2006-2008* (Department of Education and the Arts, 2006) states:

> Effective literacy learning practices that have led to improved performance in the 3, 5 and 7 Testing Program and in school-based assessment in both primary and secondary schools will be documented and disseminated. These practices will demonstrate alignment between whole-school, classroom and intervention programs. (p. 7)

This statement clarifies that "effective literacy learning" will be judged by "performance in the 3, 5 and 7 Testing Program" and marks received "in school-based assessment."

Within literacy policies, student engagement appears to be primarily seen as psychological, achieved by connecting schoolwork to students' home literacy practices and utilising "new" literacies based primarily on emerging technology. For example, in the policy based resource *Literate futures: Reading* (Anstey & Anstey and Bull Consultants in Education, 2002), teachers are asked to answer questions like "Do the technologies used in your classroom engage your students in similar or different tasks and technologies to those prevalent in their community and home life?" (p.5), and "How can you make your literacy and reading tasks simulate or engage students in real-life literacy and reading?" (p.7). These questions demonstrate that the focus of these reforms is on connecting literacy practices and making them "real-life."

Within policies on Indigenous and rural and remote education, while many discuss the importance of "relevant and engaged learning," the stated policy goals are retention, attendance, and increased achievement as measured by grades and standardised testing (Education Queensland, 2000d, 2003b). For example, in *Rural and remote education framework for action* (Education Queensland, 2003b), it explains that:

> To maintain and improve the attendance, retention and achievement of students in rural and remote communities, the curriculum must be relevant and engaging and meet the diverse needs of students. (p. 3)

While the policy suggests that strategies like multimodal delivery of curriculum may improve student-teacher relationships, potentially increasing psychological aspects of student engagement, intellectual challenge is only mentioned once within the document.

Within Education Queensland policies and reports, while those relating to middle and senior schooling appear to focus on improving cognitive aspects of student engagement, those relating to literacy, rural and remote education, and Indigenous education seem to pursue psychological and behavioural outcomes of student engagement. These two sets of policies appear contradictory in some ways. For example, while ETRF policies are advocating individualised learning pathways, especially in senior schooling (Queensland Government, 2002a, 2002b), literacy policies are working to implement more uniform, whole-school approaches to learning (Department of Education and the Arts, 2006; Education Queensland, 2002a, 2002b).

Across policies, there is a push towards increased measurement of student engagement and learning. At present, it is unspecified how this will be done, raising concern as some government research appears to use measures that are poorly aligned with intended outcomes (Education Queensland, 2003a; Willms, 2003). If measures like those used in these studies were implemented on a wider scale to "assess" engagement (Education Queensland, 2003a; Willms, 2003), it is unlikely that useful data reflecting behavioural, psychological, and cognitive aspects of student engagement would be obtained.

2.6.5 Conclusions about understandings of student engagement within educational policy

Several conclusions can be drawn based on the government reports and policy documents reviewed in this section. First, it is clear that government reports and policies influence each other. For example, strong similarities exist between measures of student engagement used in Willms' (2003) OECD report and Finn's (2006) United States Government report.

It is also apparent that many groups of policies lack internal consistency. Within many documents, it seems that:

> On one hand, they [teachers] are urged to follow a set of teaching procedures designed to attain high levels of pupil engagement by concentrating upon whole class settings, while at the same time pursuing a path aimed at maximizing the meaningfulness of learned content to pupils by having them work in individualized settings. (Smyth, 1980, p. 239)

Differing positions appear to be based on conflicting understandings of student engagement. For example, reports advocating tracking appear to draw on primarily behavioural understandings of student engagement (Powers and Associates Pty. Ltd, 2003), while those rejecting tracking seem to focus on student psychological and cognitive engagement (Luke et al., 2003; National Research Council & Institute of Medicine, 2004). Smyth (1980) recommends an ". . . eclectic approach of individual seatwork, small groups, and whole class [instruction]" (p. 239). His attempt to "compromise" is indicative of the way most policies operate. While policies talk about changing education, they do not suggest significant structural alteration to the way schooling is enacted.

Also, many proposed pedagogical changes lack ". . . congruence with other aspects of the school system and its context" (Matters 2005, p. 27). Matters (2005) suggests that

pedagogical reforms cannot be successfully implemented without ". . . a powerful

assessment system and the development of schools as learning organisations" (p. 26).

These issues are generally avoided within current reforms.

There is also a need for more consistent use of concepts within policy documents. For

example, Matters (2005) notes that "Queensland education's message system lacks

coherence" (p. 28). As Luke et al. (2003) explain, "there is a pressing need for . . . a

common language for talking about evidence of general school climate improvement

and of social outcomes" (p. 100). A "common language" about student engagement in

learning is needed before the concept will be useful within a policy context. While a

three-dimensional model of student engagement is supported by the academic research

discussed earlier in this chapter, most policies appear to rely on a two-dimensional

construct (Department of Education, Science, and Training, 2003b; Education

Queensland, 2000d, 2003b; Ministerial Council on Education, Employment, Training,

and Youth Affairs, 2000b). The three-dimensional model explained earlier in this

chapter (Irvin, 2006) is fruitful as it better shows the complexity of student engagement.

However, consistent use of any model of student engagement would improve coherence

and consistency between policies.

Finally, accurate measures of student engagement are needed. Internationally,

educational stakeholders are seeking to quantify student engagement, evidenced by the

commercial success in the United States of the National Survey of Student Engagement,

sold to universities to establish data about the engagement of their students (Korkmaz et

al., 2006; Kuh, 2001, 2003; Viadero, 2004). Most current government research appears

to utilise measures of student engagement that are much narrower than definitions found

in their corresponding documents (Education Queensland, 2003a; Willms, 2003). The academic literature reviewed at the beginning of this chapter suggests that assessment of student engagement should be informed by data on student cognitive, psychological, and behavioural engagement (Blumenfeld et al., 2005). Development of measures that could accurately record such data would be timely in light of Queensland government plans to record and transfer data about student engagement between schools and districts (Education Queensland, 2003d). Until such measures are developed, it is unlikely that "assessments" of student engagement will provide data useful for educators.

2.7 Chapter summary

This chapter has reviewed academic literature and government reports and policy documents about student engagement. Academic literature contains both single and multidimensional constructs of student engagement. Behavioural, psychological, and cognitive types of engagement are used individually in research as single-dimensional constructs and are also related together into multidimensional models. Behavioural engagement can be defined as participation in school and extracurricular activities and adherence to school rules. Psychological engagement is related to student attitudes towards and feelings about learning, school, teachers, and peers and their interest in and commitment to schoolwork and learning. Cognitive engagement is considered present when students self-regulate when learning and use deep-level learning strategies. Research suggests that these three types of engagement have a hierarchical relationship (Irvin, 2006; Nystrand & Gamoran, 1991), with cognitive engagement considered most powerful as it is most closely associated with learning.

Four ways of facilitating student engagement were identified in academic literature, each underpinned by different understandings of engagement. Engagement is seen as facilitated by:

- Developing student skills

- Building relationships

- Improving curriculum and pedagogy

- Creating community programs

Each way of facilitating student engagement is underpinned by different understandings of this concept. Conceptions of student engagement affect how educationists propose it is facilitated. While many strategies are put forward, most are supported by little empirical research. More work must be done in this area to provide empirical support establishing that proposed strategies are fruitful.

The review of government reports and policy also identified incongruent understandings of student engagement. Most government reports and policies appear aligned with psychological and behavioural understandings of engagement put forward by the OECD (Willms, 2003), although some seem to acknowledge the importance of cognitive engagement (Luke et al., 2003; National Research Council & Institute of Medicine, 2004; Pendergast et al., 2005). Consistent use of any model of student engagement in government work would improve coherence between documents.

This chapter establishes that understandings of student engagement are incongruent within academic literature and government documents. As these bodies of literature are supposed to guide teachers and teacher educators, this finding is disconcerting. It remains unclear how secondary school teachers understand these highly debated

concepts. As mentioned in Chapter 1, few studies consider teacher perspectives on student engagement or their role in facilitating it, making this a gap in the literature (Cothran & Ennis, 2000; Louis & Smith, 1992; Waeytens et al., 2002).

The following chapter will introduce phenomenography, an approach that has not been previously used to investigate student engagement. This approach can map the qualitatively different ways participants understand contested phenomena like student engagement. The following chapter explicates why phenomenography would be a worthwhile approach to use for investigating teacher conceptions of student engagement in learning. It will then examine the theoretical principles underpinning the use of the phenomenographic approach within this study, reviewing phenomenography's ontology and epistemology, before identifying phenomenographic understandings of language, intentionality, and awareness.

Chapter 3
Phenomenography:
Theory and practice

3.1 Introduction

In the previous chapter, varied and at times incongruent understandings of student engagement are identified within academic literature and government documents. Different understandings of student engagement often lead to conflicting strategies being promoted to facilitate it. For example, while some researchers suggest that individual seatwork activities like worksheets, silent reading, and workbooks facilitate student engagement (Greenwood et al., 2002), others recommend activities encouraging peer interaction and allowing students opportunities for control and choice (Di Bianca, 2000; Strong et al., 1995). The inconsistent use of this concept throughout all bodies of literature reviewed raises the question of how teachers might understand student engagement. Given the variation within the literature, it seems likely that teachers may also hold a range of understandings about student engagement.

The phenomenographic approach is particularly suited to investigating the concept of student engagement. Phenomenographic data can be used to create theoretical models that map the variation between ways people understand phenomena, establishing logical relationships between their conceptions (Marton, 1986). While many different conceptions of student engagement have been identified, clearly articulated relationships between them have not been established. Identifying these relationships allows researchers to determine the most useful understandings to use in reforms and

interventions, as has been done with conceptions of teaching and learning (Prosser &

Trigwell, 1997b; Trigwell & Prosser, 1996).

After explaining why phenomenography is particularly suited to answering the research

question posed in this study, theoretical understandings of conceptions are examined.

Important ontological and epistemological assumptions related to conceptions are

explained, and then phenomenographic understandings about how language is used to

articulate these conceptions are explored.

The second half of the chapter examines two theoretical frameworks relating to the

structure of conceptions (Marton & Booth, 1997). These frameworks are being used, in

part, to test their utility for future phenomenographic work. The first framework is

based on phenomenographic understandings of intentionality, while the second is on

understandings of awareness. Both frameworks are congruent with phenomenographic

analysis as they focus on different aspects of conceptions. This section will review

theoretical and empirical work related to these frameworks before articulating how they

will be utilised within this study.

3.2 A phenomenographic approach

Although some have referred to phenomenography as a method (Hasselgren, 1996),

most consider it to be a research approach because:

> . . . it is not a method in itself, although there are methodical elements associated
> with it, nor is it a theory of experience, although there are theoretical elements to
> be derived from it. (Marton & Booth, 1997, p. 111)

Phenomenography can be used to identify and map the qualitatively different ways

people experience the phenomena in their world (Marton, 1988b), an area of research

autonomous from other domains of inquiry (Marton, 1981b). A phenomenon can be

defined as ". . . the thing as it appears to us" (Marton, 2000, p. 105). These "things" can

be both concrete, such as a physical object or structure, and abstract, like an emotion or

type of human interaction.

Marton (1994b) defines phenomenography as:

> . . . the empirical study of the limited number of qualitatively different ways in
> which various phenomena, and aspects of, the world around us are experienced,
> conceptualized, understood, perceived, and apprehended. (p. 4424)

This definition highlights several key assumptions within phenomenography. First, it

reinforces that phenomenographic results must be based on empirical data. Second, it

establishes that a phenomenon can be experienced in a limited number of qualitatively

different ways. Third, the five descriptors at the end of the sentence highlight the many

ways people are assumed to interact with phenomena. Phenomena can be experienced,

conceptualised, understood, perceived, and apprehended; these words are used

interchangeably in phenomenographic literature.

Phenomenographic results help researchers identify conceptions within a sample of

people that may shape behaviour within that group. Knowing what people discern (or do

not discern) about phenomena allows researchers to design situations where important

features can be brought into awareness, potentially changing people's understandings

(Booth, 1997; Lo, Marton, Pang, & Pong, 2004; McLean, 2001; Pang & Marton, 2003).

The logical relationships between conceptions established in a phenomenographic

outcome space help researchers identify the most complex conceptions to use in reforms

(Prosser et al., 2005).

The interpretations of phenomenography used in this study are primarily those from the approach's founders, Marton, Saljo, Svensson, and Dahlgren (Marton, 1981a; Marton & Saljo, 1976). There are many reasons why this approach is suited to addressing this study's research question, as outlined in the following section.

3.3 Strengths of using a phenomenographic approach to study student engagement

There are several reasons why phenomenography is a useful approach for investigating teacher conceptions of student engagement in learning. First, phenomenography has not been previously used to research student engagement. Authors have indicated the need for more qualitative studies of student engagement; this study will help fill this gap (Fredricks et al., 2004). Second, phenomenography has been used previously to create useful theoretical models of contested concepts (Bruce, 1996; Cope, 2000; Kirk, 2002; Loughland, Reid, & Petocz, 2002). Logical and often hierarchical relationships between conceptions are established in phenomenographic results, useful for identifying the most complex ways of understanding a phenomenon. Within phenomenography, complex understandings are valued as they represent a wider and more complete awareness of the aspects of the phenomenon. Third, phenomenography has been instrumental in important findings on teaching and learning (Boulton-Lewis, Smith, McCrindle, Burnett, & Campbell, 2001; Marton & Booth, 1997; Marton & Saljo, 1976; Prosser & Trigwell, 1997b; Watkins, 2004), showing that phenomenographic results can be used to make important contributions to knowledge.

3.3.1 A qualitative approach to student engagement

Fredricks et al. (2004) identify the ". . . narrow array of methods used to study engagement" (p. 86), many of which are quantitative approaches. While quantitative methods are useful for establishing correlations within large data sets, descriptive data

about student engagement are also necessary. Qualitative data give researchers access to participant voices (Barnes, 1992). By examining participants' actual words, new insights about phenomena can be obtained and readers can be exposed to conceptions different to their own (Dall'Alba, 2000).

Most studies reviewed in Chapter 2 are quantitative in design and utilise surveys or questionnaires to run statistical analysis. These studies aim to identify variables considered important to student engagement or to determine the statistical significance of relationships between variables. While data are generally collected through surveys, some use innovative approaches like the Experience Sampling Methodology where participants answer questions when prompted by a beeper, giving researchers data about participant feelings at various stages of a lesson or experience (Di Bianca, 2000; Shernoff, 2001; Shernoff et al., 2003; Uekawa et al., 2001). Analytical techniques include analysis of variance (Finn & Rock, 1997; Shernoff, 2001); hierarchical linear modelling (Finn & Voelkl, 1993); regression analysis (Brewster & Bowen, 2004; Miller et al., 1996; Skinner & Belmont, 1993); person-centred analysis (Roeser et al., 2002); path analysis (Ashiabi, 2005); and cluster analysis (Ainley, 1993). Throughout quantitative research, the experience of the large sample group is the focus.

A comparably small number of studies utilise a qualitative design. Many of these use case studies (Asher, 2005; Brooks et al., 2003; Newmann et al., 1992), although a range of other designs are also utilised (Bousted & Ozturk, 2004; Cothran & Ennis, 2000; Hufton et al., 2002). For example, Cothran and Ennis (2000) use constant comparison to match interview data with classroom observations, while Bousted and Ozturk (2004) analyse student work, classroom observations, and interviews. Qualitative investigations

allow researchers to represent participants using their own words, letting readers have greater access to participant discourses and understandings. Some studies also combine qualitative and quantitative methods (Huang, 2002; Newmann, 1992a).

Fredricks et al. (2004, p. 86) note there is a need for ". . . research that takes a qualitative approach to understanding the phenomenology of engagement." A phenomenographic approach would be fruitful, first because it has not been used before and second because it would be able to elicit the rich, qualitative data insufficiently represented in student engagement literature. While phenomenography focuses on the collective group, similar to quantitative research, it uses participant voices to illustrate categories, making it possible for the reader to access participants' language (Barnard, McCosker, & Gerber, 1999). Research conducted using phenomenography also has the potential to uncover new understandings of student engagement, unlike quantitative measures that are restricted to testing for predetermined variables.

3.3.2 An established way to contribute to knowledge

Phenomenography was also selected because it can make valuable contributions to knowledge. Phenomenographic studies have contributed significantly to understandings in education and other fields like the health sciences (Barnard et al., 1999; Jormfeldt, Svedberg, & Arvidsson, 2003; Sjostrom & Dahlgren, 2002; Soon & Barnard, 2001; Svedberg, Jormfeldt, & Arvidsson, 2003). Research using a phenomenographic approach has made particularly substantial contributions to knowledge about teaching and learning that have influenced understandings of student engagement (Ainley, 1993; Åkerlind, 2004).

The concept of deep and surface learning is perhaps the most recognised phenomenographic contribution to educational research. When investigating why students achieved dissimilar understandings of the same material, Marton and Saljo (1976) found that students use different approaches. They identify two levels of processing, deep and surface. When utilising deep level processing, ". . . the student is directed towards the intentional content of the learning material"; with surface level processing, ". . . the student directs his attention towards learning the text itself" (Marton & Saljo, 1976, p. 7). The deep approach has been correlated with significantly better learning outcomes, making it the more desirable approach for students to utilise (Marton & Saljo, 1997).

Many have built on this work. For example, Biggs (1987) uses the concept of deep and surface approaches to learning to underpin his own 3P model of learning, where *presage* factors lead to a *process* and finally to a *product*. This theory forms the basis of the *Learning process questionnaire* (LPQ) and *Study process questionnaire* (SPQ), now adapted for use with high school teachers and students (Kember, Biggs, & Leung, 2004). The LPQ and SPQ have generated useful information about how deep and surface approaches affect learning (Dart, Burnett, Purdie, Boulton-Lewis, Campbell, & Smith, 2000). For example, research indicates that students utilising a deep approach are more aware of the learning opportunities that teachers presented to them (Campbell et al., 2001).

The concepts of deep and surface learning are used in student engagement literature, especially in relationship to cognitive engagement. Ainley's (1993) work indicates that engaged students are more likely to utilise deep approaches to learning and attain better

learning outcomes. Literature describing how to foster a deep approach to learning is similar to explanations of how to elicit cognitive and psychological engagement. For example, Dart, Burnett, Boulton-Lewis, Campbell, Smith, & McCrindle (1999) suggest teachers must:

- provide opportunities for teacher-student interaction

- show concern for the personal welfare and social growth of the students

- encourage students to be active participants in the learning process

- emphasise the use of skills and processes of inquiry. (p. 146)

Teacher actions identified here are similar to student engagement literature suggesting the importance of teacher-student relationships (Brewster & Bowen, 2004), student participation in decision making (Reeve et al., 2004), and the development of cognitive skills and strategies (Woodward & Munns, 2003).

Åkerlind's (2004) investigation of teachers' experiences of teaching shows that the concept of student engagement has also started to permeate phenomenographic work. Her study found four ways of experiencing teaching:

1. a teacher transmission focused experience

2. a teacher–student relations focused experience

3. a student engagement focused experience

4. a student learning focused experience. (Åkerlind, 2004, p. 367)

In the first category, teachers impart knowledge to passive students by organising material and making it entertaining. In the second category, teachers motivate pupils, learning from their students and feeling personal satisfaction from teaching. In the third category, teachers cater for engaged students by using real-world examples and interactive learning strategies. In the final category, teachers foster independent, critical,

and creative thinking in students. Within this categorisation, thinking is prioritised over student engagement.

Phenomenography is a widely used approach that has made significant contributions to the field of education, especially in the areas of teaching and learning (Dall'Alba, 1991; Martin & Balla, 1991; Prosser & Trigwell, 1997a; Trigwell & Prosser, 1996). There are growing numbers of researchers using what Bowden (1996) terms *developmental phenomenography*, where research is used to inform projects designed to improve aspects of the participants' lives. For example, phenomenographic data on a New South Wales university staff's conceptions of graduate attributes were used to rewrite the university policy statements, aligning policy with staff goals for graduates (Barrie, 2004). This example is relevant as it shows how phenomenographic results can be used to make policies that are more in line with stakeholder understandings, a possible use for the results of this thesis.

Phenomenography is useful for investigating people's understandings of phenomena and can generate productive theoretical models to map differences in experience. This approach can be fruitfully used to investigate student engagement because it is qualitative and it has a history of useful contributions to knowledge.

3.4 Areas outside the scope of phenomenographic inquiry

Phenomenography is particularly suited to addressing the question posed in this study. However, this approach can only be used to investigate certain kinds of questions. It is useful for identifying conceptions and creating theoretical models showing relationships between them (Marton & Booth, 1997). Phenomenography cannot be used to match individuals to conceptions, measure a conception's prevalence, or test if a conception is

present within a specific case. However, it can be combined with other approaches to create qualitative and quantitative data-collecting tools that can be used to investigate questions outside of phenomenography's scope (Åkerlind, Bowden, & Green 2005; Patrick, 1998; Prosser, 2000; Prosser et al., 2005; Prosser & Trigwell, 1997a, 1997b; Trigwell, 2000a, 2000b; Trigwell & Prosser, 1996, 1997; Trigwell, Prosser, & Ginns, 2005; Trigwell, Prosser, & Waterhouse, 1999; Yu, 2003, 2005).

While phenomenography can be used to identify the range of conceptions within a population, it cannot align individual participants with these conceptions (Åkerlind et al., 2005; Barnacle, 2005), even though some work identified as phenomenographic has matched participants to conceptions (Boulton-Lewis et al., 2001; Eklund-Myrskog, 1998; Trigwell & Prosser, 1996). Marton (1992) explains that:

> If our understanding of the world is described in experiential terms, and if experiential descriptions depict relations between the individual and the world, then we cannot say an individual *has* a certain understanding. We must speak instead of understanding in a dispositional sense. When encountering (or thinking about) a phenomenon, the individual has the capability of understanding it in a certain way (or in certain ways). (pp. 260-261)

When using phenomenography, "we cannot say an individual has a certain understanding." The conception a person has articulated does not necessarily match up with the person's understanding (or capability for understanding). What a person says represents one way the person is able to understand the phenomenon at that moment. The conception articulated could be institutionally sanctioned or commonly expressed by others in the community. As conceptions articulated may not represent the participant's personal position, phenomenography is used to ". . . explore the range of meanings within a sample group, as a group, not the range of meanings for each individual within the group" (Åkerlind, 2005, p. 323). Because participants are not linked to specific conceptions, the prevalence of a conception cannot be quantified.

In addition, individuals cannot be linked to a specific conception because many articulate multiple conceptions. In one study that classified individual participants to categories, the researchers found that participants ". . . made statements . . . which fell into more than one category" (Boulton-Lewis et al., 2001, p. 46). Marton and Pong (2005) argue that individuals cannot be assigned to categories because participant understandings change within interviews due to inter-contextual and intra-contextual conceptual shifts. Inter-contextual shifts occur when something in the interview context changes. For example, a new question about the phenomenon could be introduced which prompts the participant to describe another conceptual understanding. Intra-contextual shifts occur when participants reflect on their own responses and modify or add to what has been previously said. In Marton and Pong's (2005) study on price and trade, participants made frequent inter-contextual and intra-contextual conceptual shifts, but failed to see these often contradictory positions as problematic. Participants saw each response as embedded in a specific context, unrelated to previous examples.

While phenomenography can produce useful theoretical models, it is unable to match individuals to specific conceptions, identify the presence of a conception in a specific case, or make statements about the prevalence of a conception. A phenomenographic approach can only be used to help identify the range of conceptions present within a population. As conceptions are the focus of phenomenographic research, it is necessary to explore how they are theoretically situated, a question which is explored within the next section.

3.5 Theoretical assumptions about conceptions

Conceptions are the focus of phenomenographic research. They are sometimes referred to in phenomenographic literature as "ways of experiencing," "ways of conceptualising," "ways of seeing," or "ways of apprehending" (Marton & Pong, 2005, p. 336). Conceptions are ". . . neither fixed nor stable in meaning . . .," being ". . . dynamic and dependant on the context and situation in which they are apprehended" (Kirk, 2002, p. 57). As people's conceptions are constantly changing, a theoretical understanding of conceptions is necessary to study them effectively.

Early phenomenographic studies are said to be aligned with Gestalt-psychological theory's ". . . general assumptions and observations concerning the human mind . . ." (Uljens, 1996, p. 103). It appears that these early studies do not possess ". . . any elaborated theoretical stance" (Uljens, 1996, p. 103), and are driven by data not theory. As researchers made sense of empirical data relating to student conceptions of learning (Marton & Saljo, 1976; Saljo, 1979), they began to align phenomenography with some pre-existing theoretical principles, many from Husserl's understandings of classical phenomenology.

Some suggest phenomenography lacks explicit theoretical grounding (Richardson, 1999; Webb, 1997). Because of misunderstandings about phenomenography's theoretical framework:

> … the challenge to those engaging in phenomenographic research, then, is to clarify and justify what their research involves ontologically, epistemologically and methodologically. (Dall'Alba, 1996, p. 11)

Works including Svensson's (1997) article *Theoretical foundations of phenomenography* have contributed significantly to outlining phenomenography's

previously implicit theoretical framework. This article and other phenomenographic

works (Barnard et al., 1999; Marton, 1996; Marton & Booth, 1997; Sjostrom &

Dahlgren, 2002; Uljens, 1996) are drawn on in the subsequent sections to explain the

ontological and epistemological assumptions underpinning this study.

3.5.1 Ontological assumptions about conceptions

Phenomenographic understandings about conceptions are based on the ontological

assumption that a non-dualist world exists (Marton, 1981a, 1994b; Sjostrom &

Dahlgren, 2002; Svensson, 1997). This viewpoint is called a *constitutionalist*

perspective (Trigwell & Prosser, 1997). According to this perspective, there is no

differentiation between an objective "real" world and a subjective experienced world.

The subject and object (phenomenon) are linked, not separate, existing together in a

space that is both subjective and objective (Barnard et al., 1999). Marton (2000) argues

that:

> . . . experiences, conceptions, understandings, etc., (terms which I have used
> interchangeably) refer to subject-object relations of an internal nature. Our world
> is a world which is always understood in one way or in another, it cannot be
> defined without someone defining it. (p. 115)

The world is a described world; the way humans conceptualise it creates knowledge

about it and therefore "reality." When a person is born, "the child is incorporated into

the world and the world becomes a part of the child" (Pramling, 1996, p. 84); the

internal relationships between the individual and their world allow development of

personal and collective knowledge in the form of conceptions.

As conceptions are based on changing experiences, this theory suggests there is no fixed

"reality." This means:

> . . . there is no way of arriving at a final description of anything, because a
> description relates what that thing is for someone, and thereby depicts it as seen
> through someone's previous experiences. (Marton & Booth, 1997, p. 101)

People's conceptions of phenomena change with time. However, within any population, there will be a limited number of ways a phenomenon can be experienced due to current social, philosophical, geographical, economic, and cultural conditions (Marton & Booth 1997).

Aligning with this ontological stance, phenomenographers use a second-order perspective, orienting towards and reporting on ". . . people's ideas about the world (or their experience of it)" (Marton, 1981a, p. 178). This differs from the commonly used first-order perspective where researchers make statements about the world and try to discover how something "really is" (Sjostrom & Dahlgren, 2002). Using a second-order perspective allows researchers to:

> . . . find out the different ways in which people experience, interpret, understand,
> apprehend, perceive or conceptualize various aspects of reality. (Marton, 1981a,
> p. 178)

It also lets researchers create descriptions that are ". . . autonomous in the sense that they cannot be derived from descriptions arrived at from the first-order perspective" (Marton, 1981a, p. 178).

Working from the second-order perspective, people's conceptions of phenomena become the central form of knowledge and ontologically, these ". . . have an experienced reality" (Marton et al., 1993, p. 283). As phenomenographers do not attribute an ontological status to objects, the purpose of this type of research is ". . . finding out how their [a phenomena's] ontological status is experienced" (Marton, 1996, p. 166). Within phenomenography:

> . . . metaphysical beliefs and ideas about the nature of reality and the nature of knowledge do not come first. What comes first are more specific assumptions and ideas directly related to the specific character of the empirical research. (Svensson, 1997, p. 164)

Since phenomenography is not affiliated with a specific metaphysical position, researchers may position themselves within paradigms like materialism or idealism when conducting phenomenographic research (Svensson, 1997).

3.5.2 Epistemological assumptions about conceptions

Most phenomenographic epistemological assumptions are linked to its ontology and focus on the nature of conceptions and their relationship to knowledge and reality (Gerber & Bruce, 1995). One key epistemological assumption is that ". . . humans differ as to how the world is experienced, but these differences can be described, communicated and understood by others" (Sjostrom & Dahlgren, 2002, p. 340). People are assumed to develop different conceptions because of variation in their lived experiences (Bowden & Marton, 1998; Marton & Booth, 1997).

Svensson (1997) lists six assumptions considered fundamental to a phenomenographic understanding of conceptions; these are both epistemological and ontological in nature:

1. Knowledge has a relational and holistic nature

2. Conceptions are the central form of knowledge

3. Scientific knowledge about conceptions cannot be considered "true" as it is ever changing and should be judged on fruitfulness instead of "truth"

4. Scientific knowledge about conceptions must be grounded in description

5. Scientific knowledge about conceptions is based on delimitations and holistic meanings of conceptualised objects

6. Scientific knowledge about conceptions is generated from processes of differentiation, abstraction, reduction, and comparison of meaning. (p. 171)

The first of these assumptions suggests that knowledge is created through human activity and thinking, making knowledge ". . . an internal relationship between person and world" (Marton, 1996, p. 176). Knowledge is shaped by the world external to the person as this world influences human thought (Barnard et al., 1999). Barnard et al. (1999) explain that this relational view of knowledge is fundamental to phenomenography, differing from ". . . empiristic and positivistic assumptions about knowledge, which view knowledge as a closed mental system" (p. 218). Within phenomenography, conceptions are asserted to be the primary way people express their understandings; these become the central form of knowledge.

The last four assumptions relate to scientific knowledge. The first proposes that scientific knowledge about conceptions cannot be considered truth (Svensson, 1997). Because scientific knowledge frequently changes due to new human experiences, fruitfulness instead of truth is considered to be the best criterion for judging knowledge. Detailed description is required to judge the fruitfulness of people's conceptions and data relating to phenomena should be viewed holistically and analysed closely. Phenomenography uses differentiation, abstraction, reduction, and comparison of meaning to analyse data; these processes link to steps in phenomenographic analysis, and will be further explored in Chapter 4.

3.5.3 Implications of theoretical assumptions about conceptions for the research process

The phenomenographic assumptions described in this section influence the research process. By accepting the existence of a non-dualist world, researchers must resist positivist notions of "truth" and "reality," acknowledge that participant viewpoints represent versions of reality, and record those viewpoints faithfully. Bracketing is a key

step in this process (Ashworth & Lucas, 1998, 2000; Marton, 1994b). It is the "unnatural" but necessary separation of the researcher and the world. The process allows researchers to see data from the second-order perspective as judgments on the validity of the participant's perspective are suspended (Ashworth & Lucas, 1998). Bracketing is a safeguard to ensure that researchers do not examine data from their own point of view.

Phenomenographic understandings of bracketing developed from Husserl's concept of the epoché in phenomenology (Ashworth & Lucas, 1998, 2000). Bracketing is the process where researchers suspend judgment, setting aside preconceived ideas they hold about the phenomenon before examining the data (Marton, 1994b). This process is often insufficiently explained in published studies (Ashworth & Lucas, 1998, 2000).

Ashworth and Lucas (1998, 2000) identify the kinds of facts, assumptions, judgments, and questions that researchers must put aside during analysis. Throughout the analytical process, researchers are not allowed to use knowledge of previous research findings and theoretical structures. Personal values and assumptions may not be used to shape analysis (Ashworth & Lucas, 2000). Researchers can only make judgments on exactly what was said by the participant (Bowden, 2005), and initial categorisations must be probed to establish that they genuinely fit the data (Patrick, 2000). These steps were adopted throughout the research process in an effort to make sure that data were not being manipulated to match preconceived ideas.

If data match preconceived ideas, researchers must search for other interpretations so data are not forced into pre-established categories. Without bracketing, researchers risk:

- adding or adjusting categories where this is not supported by the data

- imposing a logical framework on data where this is not justified

- analysing the data from the researcher's or content expert's framework, so that the interpretation of the data is skewed towards an accepted or expert view of the phenomenon. (Walsh, 2000, p. 23)

Phenomenographers must suspend judgment on a response's accuracy, instead comparing and contrasting participant conceptions to establish their relationships.

Some phenomenographers argue that researchers should work in groups as an individual working alone may not sufficiently bracket preconceived ideas, probe the data, or question results (Barnacle, 2005; Bowden, 2005; Walsh, 2000). However, phenomenographers also acknowledge that high quality studies have and can be done by individual researchers when appropriate precautions are taken (Åkerlind, 2002). To satisfy readers, researchers working alone must explicate more thoroughly the steps taken to bracket preconceived ideas, as is done in Chapter 4 of this dissertation.

There are many ways researchers working alone can probe categories to ensure they fit the data. For example, solitary researchers can obtain feedback from supervisors or critical friends. They can present works in progress. For example, a preliminary outcome space was presented at a phenomenography interest group symposium for critical review (Irvin, 2005b). Providing large passages of data to support categorisation can also help substantiate categories, as has been done in Chapters 4, 5, and 6.

While this section has outlined general ontological and epistemological assumptions about conceptions that guide phenomenographic inquiry, it has not yet addressed how psychological phenomenon like conceptions can be shared with others. The next section

outlines phenomenographic understandings of how language is used to express
conceptions.

3.6 Phenomenographic assumptions about relationships between language and conceptions

Since researchers access conceptions through spoken and written language, it is
necessary to understand phenomenographic assumptions about language. One
assumption is that ". . . language, culture and human experience are inextricably
intertwined" (Saljo, 1997, p. 177). As these three elements are "intertwined," it is
assumed that language can be used to express human experiences and conceptions.

Language provides a way for people to communicate their experiences; however, lack
of access to a full range of expression and the constraints of social practices may limit
what people can express. These limits are considered necessary because ". . . we need to
be able to reduce the indefinitely varied phenomena of the world into a manageable
number of phenomena of similar types" (Marton et al., 2004, p. 26) in order to
communicate effectively. This section will further examine how human language
facilitates and limits access to human conceptions of the world.

3.6.1 Using language to describe conceptions

While words do not exist to describe everything present within the world, human
cultures have created ways of expressing key differences; these will vary across
cultures, depending on what is deemed important within the society. A frequently cited
example is an Eskimo language with seven words for snow; while these distinctions are
unnecessary in English, the subtle changes in snow that these words describe affect
aspects of Eskimo life (Marton et al., 2004).

Human experience also shapes language. Existence in a non-dualist world means that "we cannot describe a world that is independent of our descriptions or of us as describers" (Marton & Booth, 1997, p. 113). Marton et al. (2004) suggest that:

> . . . language plays a central role in the construal of experience, that is it does not simply represent experience, as is widely perceived, but more importantly, it constitutes experience. (p. 25)

New words are constantly being created to describe innovations in thought, technology, and experience.

The same word or phrase may carry a range of conceptual meaning (Alvegard & Anderberg, 2006; Anderberg, 2000b; Anderberg & Johansson, 2006; Svensson & Alvegard, 2006). Anderberg and Johansson (2006) explain that:

> Phenomenography neither supposes an identity to exist between the meaning of an expression and a concept within a conceptual system, nor that meaning is given by a discourse. … we [phenomenographers] expect a variation of meaning over different uses of the same expression. (p. 3)

Within phenomenographic research, variation in meaning is assumed; people using similar words are not assumed to share the same understandings.

3.6.2 Limitations of language

The limitations language places on what can be said are problematic for phenomenographic research. For example, Saljo (1997) suggests that a:

> . . . limited number of qualitatively different ways can just as easily be accounted for by the fact that there are a limited number of ways of talking about a phenomenon that are perceived relevant in a particular situation. (p. 178)

He argues that people's abilities to describe their lived experiences are limited by both language and social practices (Saljo, 1996).

As language provides a finite set of words to describe experiences, some conceptions and experiences may fall outside the language's descriptive power. This actually occurs

within phenomenography. The Swedish word *uppfattning*, used in original Swedish phenomenographic work, does not have a directly corresponding term in English; conception is the closest translation (Marton, 1996; Saljo, 1997, p. 186). Even the word uppfattning fails to match what phenomenography founders hoped to describe, leading to the myriad of synonyms for the term *conception* (Marton & Pong, 2005).

Social practices and their corresponding discourses also can potentially limit the use of language. For example, Saljo (1997) explains:

> . . . we have access to nothing but what people communicate (or what they do), and one should be extremely cautious of considering this as indicating a way of experiencing rather than, for instance, a way of talking. (p. 178)

He argues that in phenomenography the specific circumstances under which people communicate and the motives behind what is (or is not) said are not questioned. However, as phenomenography examines collective, not individual, conceptions, the circumstances surrounding what is said have less significance; as long as conceptions articulated can be found in the population under study, data are useful.

3.6.3 Implications of phenomenographic understandings of language for phenomenographic research

Phenomenographic assumptions about language must be taken into account in phenomenographic research. While descriptions will always be limited by the person's lack of access to a full range of expression, this does not preclude people from creating descriptions illustrating important differences they see between one conception and another. Phenomenographers acknowledge that participants may not describe their understanding of phenomena in a complete, holistic way, suggesting that sometimes:

> . . . a specific conception cannot be seen in its entirety in data obtained from a single individual, but only within data obtained from several individuals. The data obtained from each individual express some important aspect of the particular conception. (Sandberg, 1997, p. 206)

Describing the "whole" that the fragments belong to is one of the goals of phenomenographic analysis (Marton et al., 1993, p. 285).

As language and culture are intertwined, values also impact how people use language; some ways of speaking are condoned and others rejected within social situations (Gee, 1996; Gee, Michaels, & O'Connor, 1992). For example, within interviews participants may utilise specific discourses and have culturally motivated reasons for responses, but within this study, this is not viewed as a weakness. Patrick (2000) identifies that ". . . phenomenographic analysis helps us to see that what teachers say is not purely idiosyncratic; rather, the teachers are participating in different discourses" (p. 123), thereby acknowledging that participant statements are shaped by discourses existing within the population under study. However:

> . . . the meaning expressed [by a participant] cannot be assumed to be equal to meanings given in a cognitive system or social language or discourse system. (Svensson & Alvegard, 2006, p. 13)

Data must be analysed to identify the meanings participants give to their expressions. As meaning cannot be assumed, data must remain associated with its context throughout analysis.

Processes can be used to negate some of Saljo's (1997) concerns about data representing ways of talking not conceptions. The best way of mitigating this concern is to make sure that interview questions are sufficiently open and do not lead participants to adopt a specific discourse. In addition, following the guidelines for phenomenographic interview outlined in Chapter 4 can minimise researcher influence on data. Also, as discussed in section 3.4, participants should not be directly correlated with individual conceptions (Åkerlind et al., 2005; Barnacle, 2005). The next sections of

this chapter explore how conceptions identified with data are structured and can be analysed.

3.7 Theoretical understandings about the structure of conceptions

As phenomenographic researchers assume that conceptions are the central form of knowledge (Marton, 1996; Marton et al., 1993; Svensson, 1997), phenomenographers have developed theoretical and analytic frameworks that allow for further analysis of these conceptions. While original studies use conceptions as units of analysis (Marton, 1981a; Marton & Saljo, 1976; Saljo, 1979), later studies divide conceptions into smaller parts (Bruce, 1996; Marton et al., 1993; Pramling, 1983).

Phenomenographers have developed two frameworks to explain how conceptions are structured. While both are based on phenomenological principles, phenomenographers ". . . use them [the principles] somewhat differently, stretching them to meet our own approach" (Marton & Booth, 1997, p. 87). Much of the explanation of these frameworks has been done by Marton (1996), the "… self-nominated . . .'voice'. . . for phenomenography" (p. 163). One framework, based on theoretical understandings of intentionality, breaks conceptions into *what* and *how* aspects (Pramling, 1983). Later work correlates the *what* aspect with a direct object and the *how* aspect with an act and indirect object (Marton & Booth, 1997). Another framework uses theoretical understandings of awareness to identify the referential and structural aspects of conceptions (Marton, 1988a). The structural aspect can be divided into an internal and external horizon (Marton et al., 1993). These two frameworks are congruent and can be used together to analyse different aspects of people's conceptions.

To date, few phenomenographic studies have used both frameworks simultaneously (Marton et al., 1993), making it fruitful to conduct further research testing the utility of using these two frameworks together. Marton and Booth (1997) show the relationship between these two frameworks using the diagram of a conception of learning in Figure 3.1.
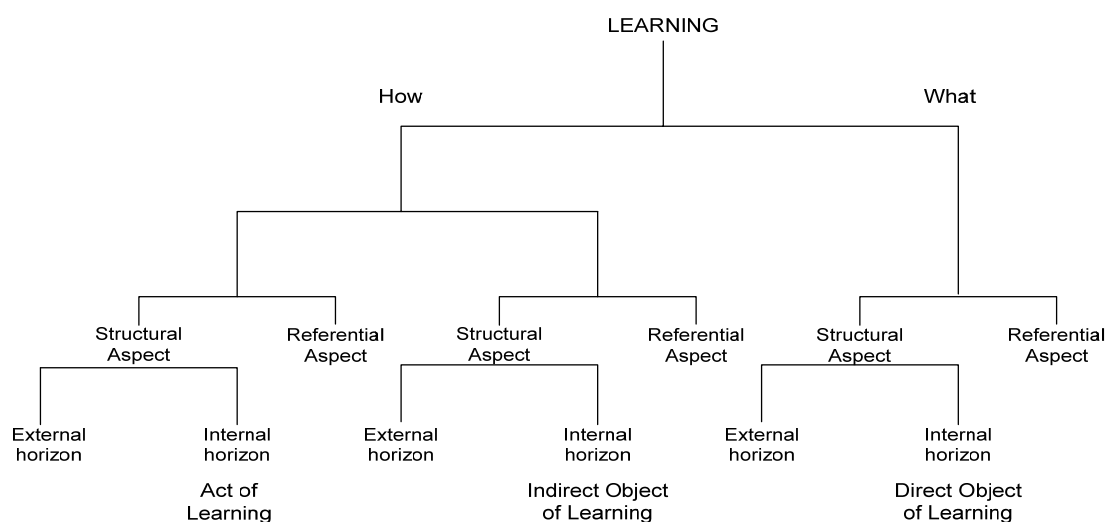
Figure 3.1 - Diagram of conceptions of learning from Marton & Booth (1997, p. 91)

This complex framework is put forward as a theoretical model of the structure of a conception. However, Marton and Booth (1997) provide little explanation as to why intentionality and awareness should be used concurrently when analysing conceptions; theoretically justifying their framework is outside the scope of this thesis, but would be an interesting area for future research. They propose that their framework based on intentionality (*what* and *how* aspects) provides the meaning of the conceptions while their framework based on awareness (internal and external horizons) contributes the structure of the conception. Marton and Booth (1997) cite that the two are interdependent saying "Structure presupposes meaning, and at the same time meaning presupposes structure" (p. 87). They claim that this framework provides the necessary meaning and structure for conceptions, although they do cite that "It would be

overwhelmingly tedious if every learning experience were described with all its aspects on all occasions" (Marton & Booth, 1997, p. 92). However, it is necessary to establish that all these conceptual parts can be identified within a set of data to substantiate that their theoretical model can, in fact, be made operational.

An obstacle to implementing this framework however, is the contested nature of many of these theoretical parts. The following sections will review literature to establish the variation in understandings about these conceptual parts prior to articulating how they are interpreted within this study.

3.8 The structure of conceptions according to phenomenographic understandings of intentionality

Many phenomenographers divided conceptions into *what* and *how* aspects based on understandings of intentionality (Bruce, Buckingham, Hynd, McMahon, Roggenkamp, & Stoodley, 2004; Drew, Bailey, & Shreeve, 2002; Marton et al., 1993; McKenzie, 2003; Pang, 2003; Uljens, 1996). This framework allows researchers to differentiate between the meaning given to the phenomenon and conceptualised acts facilitating that meaning.

In the beginning of this section, there is an explanation of the phenomenographic understandings of intentionality that underpin the *what* and *how* aspects. Following this explanation is a review of original research utilising this framework and an examination of more recent work dividing the *what* and *how* aspects into further analytical parts. The multiple meanings now associated with these conceptual parts are then analysed before descriptions of how these aspects are used within this study are given.

3.8.1 Phenomenographic understandings of intentionality

Theoretical understandings of intentionality evolved from work by philosophers including Aristotle, Descartes, Plato, and Parmenides (Siewert, 2003). Intentionality is used to explain differences between psychological phenomena and non-psychological phenomena (Marton & Booth, 1997).

Phenomenographic interpretations of intentionality draw primarily on Brentano's 19th-century work (Marton & Booth, 1997). Brentano put forward that all psychological phenomena refer to objects beyond themselves, making all psychic acts intentional (Marton & Booth, 1997). For example, the concept of learning cannot exist without an object, something to be learned because ". . . experience is always the experience of something, and conceptualisation is always the conceptualisation of something" (Marton, 1988a, p. 67). As conceptions are psychological entities, this theory suggests that each must have an object. The *what* and *how* aspects are used within phenomenography to identify the person's understanding of the phenomenon's meaning and their conceptualisation of acts facilitating this meaning.

3.8.2 Structuring conceptions based on principles of intentionality

According to phenomenographic understandings of intentionality, conceptions have *what* and *how* aspects. The *what* and *how* aspects were first used by Pramling (1983). In Pramling's (1983) work on children's conceptions of learning, she allows students to talk about learning in a variety of contexts by asking general questions like, "Tell me something you have learnt," and "Is there something your teacher wants you to learn?" (p. 92). These questions are unlike those asked in previous phenomenographic studies where discussion was based around solving a problem or interpreting a text (Marton, 1981a; Marton & Saljo, 1976).

Pramling (1983) argues that within a child's conception of learning there is a *what* aspect ". . . dealing with what the children perceive as learning" and a *how* aspect ". . . dealing with the children's ideas of how particular learning comes about" (p. 88). Pramling (1983) identifies that in much of the early phenomenographic work (Marton, 1981a; Marton & Saljo, 1976) the *what* aspect is fixed as participant conceptions are based on a shared text or problem; the additional complexity of Pramling's (1983) study is ". . . caused by not fixing the *what* aspect. It varies as a consequence of letting the child choose the phenomenon to be talked about" (p. 146).

Pramling's (1983) final outcome space includes three categories relating to the *what* aspect and three to the *how* aspect. Children see themselves as learning to do, to know, or to understand. Correspondingly, they see learning as occurring by doing, by perceiving, or by thinking. When discussing the correlation between *what* and *how* aspects, Pramling (1983) explains:

> Theoretically, all these combinations are possible (i.e. any of the "what" categories can be combined with any of the "how" categories). . . . But there is some trend towards a certain correlation i.e. learning TO DO takes place primarily by DOING; learning TO KNOW takes place primarily by PERCEIVING. Logically, learning to UNDERSTAND comes about in the first hand by THINKING. (p. 107)

While these relationships are logical, she explains that they cannot be proved empirically using phenomenographic data. However, Pramling (1983) clarifies that ". . . all categorization of the *how* aspect of learning has been made from a particular *what* aspect" (p. 105).

In Pramling's (1983) study, the *what* aspect refers to the meaning participants give the phenomenon. The *how* aspect refers to the acts the participants conceive of "doing" to

facilitate that conceptual meaning. For example, for some learners, learning to do (*what*) is conceived as being accomplished by doing (*how*) (Pramling, 1983).

Marton et al. (1993) utilise this framework to investigate Open University students' conceptions of learning. Marton et al. (1993) divided conceptions of learning into ". . . what is learned and how it is learned" (p. 278). They identify six conceptions of learning in the data, each with *what* and *how* aspects. They also use a framework based on awareness to identify the internal and external horizons of the *what* and *how* aspects. Some conceptions had more than one *how* aspect, indicating that participants saw multiple ways of facilitating the particular meaning of learning. For example, there were two *how* aspect categories related to Category E (Learning is seeing something in a different way). Material could be seen in a different way by gaining knowledge or facts or by applying previously learned skills (Marton et al., 1993, p. 291). These two subcategories describe different participant acts used to "see something in a different way."

3.8.3 Making finer distinctions relating to the *what* and *how* aspects

While the early work establishes that conceptions have *what* and *how* aspects, later research utilises principles of intentionality more explicitly. Marton and Booth (1997) suggest that the *what* aspect has a direct object and the *how* aspect is composed of an act and its indirect object. Marton and Booth (1997) explain that when examining conceptions of learning the direct object is "… content that is to be learned" (p. 84). The indirect object refers to "…*what* the act of learning aims at" (Marton & Booth, p. 84) and the act relates to "… the way in which the act of learning is carried out" (p. 84).

While the majority of studies utilising this framework investigate learning, the

framework can be applied to conceptions of any psychological phenomenon (Marton &

Pang 1999; Pang, 2003). Marton and Pang (1999) explain that:

> It [a way of experiencing something] contains both a *what* aspect which
> corresponds to the object itself and a *how* aspect which relates to the act, and can
> be couched in terms of [a] dynamic relationship between the two aspects of the
> phenomenon, i.e. the structural aspect and referential (or meaning) aspect. (p. 4)

While this passage is ambiguous about the relationship between the *what*, *how*,

structural, and referential aspects, it clearly states that all "ways of experiencing

something" have *what* and *how* aspects.

McKenzie (2002, 2003) uses this framework to investigate university lecturers'

conceptions of teaching, demonstrating that it can be applied to fields other than

learning. McKenzie (2003) argues that "the experience of teaching, like learning, also

has *how* aspects - acts and indirect objects and *what* aspects - direct objects" (p. 39). In

McKenzie's (2003) study, the *what* aspect's direct object is what is taught; depending

on the teacher's focus this could be content, students, or a combination of the two. The

how aspect has an act and indirect object; she suggests that these together form

something similar to an approach, with the act being the strategy aspect and the indirect

object the intention.

In McKenzie's (2003) first category:

> . . . teaching means that the teacher transmits information to the students and
> tries to make it interesting. Teaching is described using terms like transmitting,
> transferring, delivering, giving or passing on of information or knowledge.
> Teachers have the subject knowledge and the aim of teaching is to pass the
> knowledge on so that students have it. . . The act of teaching is one of
> transmitting. . . . [and] also includes trying to make the material or presentation
> interesting or entertaining and observing the students to see whether they are
> attentive and interested. The indirect object of teaching is to have passed on the
> knowledge so that students have it, usually in the form of notes…. The direct

> object of teaching has a taken for granted quality. It is the knowledge which needs to be passed on, and which exists in the teachers' knowledge and the syllabus. (pp. 128-129)

In this category, within the *what* aspect of the conception, teaching means "that the teacher transmits information to the students and tries to make it interesting"; the direct object, the content knowledge teachers pass to students, is embedded within this meaning as it is the "information." The *how* aspect is divided into the act and indirect object. The act of teaching involves transmitting information in an interesting way and observing students for reactions. The indirect object or intent is to have passed knowledge to students.

3.8.4 Different understandings of the *what* and *how* aspects

While the studies explored in the previous sections share similar understandings of the *what* and *how* aspects, not all researchers explain *what* and *how* aspects in this way. Marton and Booth (1997) "… note that there are different ways of using the terms *what* and *how* …" (p. 33). While these conceptual parts may be slightly adapted to suit the phenomenon under study, some meanings put forward appear incongruent with other understandings in the literature.

Some suggest that the *what* aspect is the referential aspect of the conception, providing meaning, while the *how* aspect is the structural aspect, providing context for the conception (Friedrichsen & Strang, 2003; Kirk, 2002; Reid & Petocz, 2004). This stance is not surprising given some early explanations of these aspects. For example, when discussing conceptions of learning, Marton (1988a) explains:

> We could say that the outcome represents the "what" aspect of learning and the approach represents the "how" aspect. Furthermore . . . it seems reasonable recursively to discern the "what" and "how" aspects again within both, in terms of their referential and structural aspects. (p. 66)

This passage and its corresponding diagram shown in Figure 3.2 suggest that structural and referential aspects can be considered synonymous with *what* and *how* aspects.
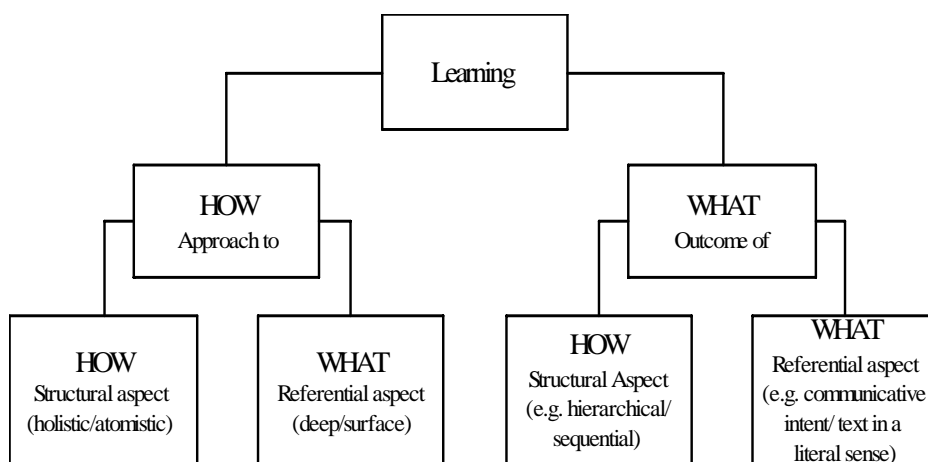
Figure 3.2 - Diagram of the structure of categories describing learning from Marton (1988a, p. 66)

Marton and Booth (1997) use the *what* and *how* aspects in a different way still, explaining:

> … the how aspect of learning has its own aspects of how and what, the former referring to the experience of the way in which the act of learning is carried out (we will refer to this now as the act of learning), the latter referring to the type of capabilities the learner is trying to master (which we are calling the indirect object of learning). (p. 84)

Here, *what* and *how* are also used to describe the act and indirect object, not the structural and referential aspects, or to make distinctions between the meaning and approach. Although later in the book they no longer refer to the act and indirect object as *how* and *what*, this discrepancy could cause confusion for the reader.

There is also disagreement about what phenomenological principles are linked to the *what* and *how* aspects. Uljens (1996) suggests that a conception has *what* and *how* aspects because someone ". . . is always aware of something (*what*) and . . . aware of this something in some way (*how*)" (p. 107). He explains that the phenomenographic *what* and *how* correspond loosely to the phenomenological concepts of noema,

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discovered by analysing what the data are about, and noesis, found by analysing how

the subjects refer to what they are communicating about (Gurwitsch, 1964).

Early work by Marton (1988a) appears aligned with Uljens' (1996) description as

Marton says that the noematic (that which is experienced) and the noetic (the act of

experiencing) appear to have ". . . a structural similarity . . . [with] our own way of

distinguishing between the "what" and "how" aspects of learning" (p. 67). However,

this correlation is later refuted in Marton's (1996) response to Uljen's (1996) article *On*

the philosophical foundations of phenomenography where Marton says that:

> When we describe qualitatively different ways of experiencing or understanding
> poverty, romantic love or Santa Claus, we describe these differences in terms of
> differences in the structural and the referential aspects (these, rather than the
> how and what aspects correspond to the noesis and noema in phenomenology) of
> our experience as objects of experience. (p. 165)

Marton (1996) suggests that Uljens has been confusing the structural and referential

aspects with the *what* and *how* aspects.

The ambiguity in many early publications has led to a wide range of understandings of

the *what* and *how* aspects. While many of these phrasings carry similar meanings, the

lack of precision in wordings has led to disagreement within the field about exactly how

this framework should be applied to data. While most authors suggest that the *what*

aspect corresponds to the meaning or object of the phenomenon, what the *how* aspect

corresponds to remains unclear. Table 3.1 shows how the *how* aspect is described in

incongruent ways, called the structural component of the conception, an act, an

approach, a process, and a way of understanding.

Table 3.1 - Understandings of the *what* and *how* aspects

Author	The *what* aspect	The *how* aspect
Cope (2000, p. vi)	The depth of understanding of the phenomenon	The approach to learning about the phenomenon
Eklund-Myrskog (1998, p. 302)	The meaning content	The way of understanding the object
Friedrichsen and Strang (2003, p. 567)	The object in the experience	The structure of the phenomenon
Hyrkas and Paunonen-Ilmonen (2001, p. 495)	What people are interested in	How the study subject is constructed of different conceptions of the phenomenon under study
Karner, Goransson, and Bergdahl (2003, p. 45)	The object of attention	The way a person learns, thinks, and actually acts to learn something
Lindberg (2003, p. 23)	Directed on the object for thinking, which can be either physical or psychological in nature; limited by intentionality	The process that leads to the *what* aspect; how we look upon something
Pramling and Johansson (1995, pp. 132, 135)	Views	Methods
Rovio-Johansson (1999, p. 6)	Object	Act

When examining Marton and Booth's (1997) more complex framework including the act and direct and indirect objects, similarly imprecise wordings exists. Once again, this is probably due in part to ambiguous wording in foundation texts. For example, in this passage, Marton and Booth's (1997) description of the indirect object of learning remains unclear:

> The principal object is the direct object: the content that is being learned. But in addition to that there is a sort of indirect object that refers to the quality of the act of learning, and which, in its simplest form, refers to what the act of learning aims at. (p. 84)

While this statement contains a precise definition of the direct object, its explanation of the indirect object indicates this term refers both to the "quality of the act" and "what the act of learning aims at."

Within the field, there is now a wide range of interpretations of this framework. While some researchers conceptualise the indirect object as the intent behind an act (Booth, 2002; Drew et al., 2002), others use it to describe qualitative differences in the quality of the act (Anderberg, 2000a; Anderberg & Svensson, 2001). Some researchers only identify the direct and indirect objects during analysis (Anderberg, 2000a; Anderberg & Svensson, 2001; Joughin, 2003). Table 3.2 illustrates some of the ways authors describe these conceptual parts.

Table 3.2 - Understandings of the direct object, act, and indirect object of a conception

Author	Direct Object	Act	Indirect Object
Anderberg (2000a, p. 7)	Content	(Not acknowledged)	Quality of the act
Booth (2002, p. 2)	Content	Act of the approach	Driving force of the approach
Ellis, Marcus, and Taylor (2005, p. 242)	Outcome	Act/Strategy	Type of capabilities being developed
McKenzie (2003, p. 41)	What is taught (students, material, or relation between them)	Strategy	Intention

Tables 3.1 and 3.2 highlight the variation in how the *what* and *how* aspects and the act, direct object, and indirect object are defined within phenomenographic studies. In some studies, the direct object and *what* aspect are considered synonymous. For example, Booth (2002) builds:

> … a model of the experience of learning analysed as content (what or direct object), approach (how), in its turn analysed into act and driving force (indirect object). (p. 2)

Here Booth indicates that the *what* and direct object are interchangeable while the act and indirect object are separate entities, a further adaptation of this framework. Given

this variation, researchers must explicate the specific meanings given to these terms within the context of their studies.

3.8.5 The *what* and *how* aspects as conceptualised in this study

Within this study, both *what* and *how* aspects as well as their corresponding act, direct object, and indirect object will be identified and analysed within the data because they make up half of the framework being tested in this thesis. This complex framework is considered useful as it separates meanings from the ways participants conceptualise facilitating those meanings and allows researchers to identify intents underpinning acts. In light of the imprecise ways the conceptual parts of this framework have been defined, it is necessary to clarify the definitions utilised in this study. This study will draw on understandings of the *what* and *how* aspects found in work by Pramling (1983). In Pramling's study (1983), the *what* aspect refers to what students conceptualised learning to be and the *how* aspect relates to how they conceptualised facilitating that conceptual meaning. For example, "doing" facilitates learning "to do" (Pramling, 1983, p. 107). In this study the *what* aspect is conceptualised as the meaning participants give to the phenomenon, in this case what teachers conceptualise student engagement to signify. The *how* aspect contains the acts conceptualised as facilitating meaning, in this case how teachers conceptualise facilitating student engagement.

While Pramling (1983) did not include the direct object, act, and indirect object within her analysis, in this study it would be fruitful to separate the conceptualised teacher acts from their stated intentions. This distinction would further illuminate why teachers are conceptualising these acts as being beneficial for student engagement. McKenzie's (2003) interpretation of this framework is utilised; in her work the direct object is what is to be taught, the act refers to the conceptualisation of strategies used when teaching,

and the indirect object represents the teacher's intents. Within this study, the direct object refers to what is to be engaged. It is student engagement throughout all categories, set by the nature of the interview questions; this will be discussed further in Chapter 5. The act refers to the teachers' conceptualisations of acts they can undertake to facilitate the direct object (student engagement). Finally, the indirect object is used to describe the intents that underpin the teachers' conceptualisations of these acts.

While a theoretical and analytical framework based on understandings of intentionality is useful, at present, incongruent interpretations exist within the field. In order to use this framework, researchers must explicate how it is being utilised within their study as has been done in this section. The next section will examine the second framework based on theoretical understandings of awareness and indicate how it is used in this study.

3.9 The structure of conceptions according to phenomenographic understandings of awareness

A framework based on understandings of awareness is used in many phenomenographic studies (Booth, 2002; Bruce, 1996; Cope, 2000). This theoretical and analytical framework allows researchers to identify conceptual parts and the contexts in which they are embedded.

This section begins by introducing the principles of awareness underpinning this framework, drawing primarily on phenomenological work by Gurwitsch (1964). Next, it introduces the structural and referential aspects and explores the differing understandings of these parts. It finishes by explicating how these concepts will be interpreted and used in this study.

3.9.1 Phenomenographic understandings of awareness

Within phenomenography, the structure of awareness can be thought of as ". . . a relationship between the person and the object of consciousness" (Booth, 1997, p. 141). According to Marton and Booth (1997), humans are constantly aware of infinite amounts of information and ". . . in a sense we could say we are aware of everything all of the time" (p. 98). Used synonymously with the term consciousness (Marton, 2000), awareness is assumed to be ". . . the totality of a person's experiences of the world, at each point in time. It is all that is present on every occasion" (Marton et al., 2004, p. 19). Variation occurs because people are not aware of everything in the same way; if they were, everyone's experiences of the world would be identical (Marton, 1996).

Awareness is assumed to be layered because:

> . . . whenever people attend to something, they discern certain aspects of it, and by doing so pay more attention to some things and less attention or none at all to other things. (Marton et al., 2004, p. 9)

People ". . . can discern entities and aspects," but can only ". . . be focally aware of a few simultaneously" (Marton & Booth, 1997, p. 123), preventing people from being able to "fully" experience an object. What people choose to attend to shapes their experience of the phenomenon (Marton, 1993).

Gurwitsch (1964) developed the layered model of awareness that became the basis of the phenomenographic framework. In his model, human consciousness is divided into three domains: the *theme*, *thematic field*, and *margin*. Gurwitsch (1964) uses the term theme to describe the object held in focal awareness or the "focus of his attention" (p. 4). Thematic field describes ". . . the totality of those data, co-present with the theme, which are experienced as materially relevant or pertinent to the theme and form the

background or horizon out of which the theme emerges as the center" (Gurwitsch, 1964, p. 4). The margin includes what coexists with the theme without being related to its content or meaning. The theme, thematic field, and margin are considered:

> . . . a gradated thing, margin merging with more peripheral aspects of the thematic field, and the more prominent aspects of the thematic field being allied with the periphery of the theme. (Booth, 1997, p. 141)

These domains are considered fluid with aspects potentially transitioning between them.

Marton (2000) uses the example of the reader reading his article to explain how the domains from Gurwitsch's (1963) theory can be applied:

> . . . the text is the theme and issues such as pedagogy, phenomenography, phenomenology and questions of qualitative research methodology in general, belong to the thematic field. The same theme can, of course, be seen against the background of different thematic fields. Furthermore, there are things that coexist temporally and spatially with the reading of the text, such as the room where the reader is sitting, the readers' marital woes, etc. All that coexists with the theme, without being related to it by dint of the content or meaning, Gurwitsch calls the margin. (p. 110)

In this example, Marton's text is the theme. This theme can appear against a range of thematic fields. For example, a researcher with a particular interest in phenomenological theory will likely attend more to those aspects of the text, whereas a high school teacher may pay more attention to the research's implications for pedagogy, teaching, and learning. The margin includes things the reader is cognisant of that are unrelated to the text.

Research using Gurwitsch's (1964) theory of consciousness suggests that differences in the way participants discern the structure of the theme can affect their interpretation of its meaning (Linder & Marshall, 2003). For example, Svensson (1984, cited in Marton et al., 1993) identifies that students' different understandings of a text are based on how they structure its component parts. In his study, students examined a text about social

welfare containing an anecdote about a family. While some students correctly identified that the text was about social welfare, others became focused on the anecdote, claiming that the text was primarily about the family. Svensson (1984, cited in Marton et al., 1993) suggests that these two understandings of the text came about because the students structured the text differently; while some discerned that the anecdote is used to illustrate a key point, making it subordinate, others view the family's story as the main focus of the passage.

3.9.2 Structuring conceptions based on awareness

While phenomenographic understandings of awareness are based on Gurwitsch's (1964) model, different terminology is used. While Gurwitsch (1964) uses the theme, thematic field, and margin to describe the parts of a conception, phenomenographers refer to structural and referential aspects (Marton, 1988a). Marton and Booth (1997), using the example of a deer in the woods, explain:

> . . . an experience has a structural aspect and a referential (or meaning) aspect . . . . to experience something in a particular way, not only do we have to discern it from its context, as a deer in the woods, but we also have to discern its parts, the way they relate to each other, and the way they relate to the whole. Therefore, on seeing the deer in the woods, in seeing its contours, we also see parts of its body, its head, its antlers, its forequarters, and so on, and their relationships in terms of stance. The structural aspect of a way of experiencing something is thus twofold: discernment of the whole from the context on the one hand and discernment of the parts and their relationships within the whole on the other. Moreover, intimately intertwined with the structural aspect of the experience is the referential aspect, the meaning. In seeing the parts and the whole of the deer and the relationships between them we even see its stance - relaxed and unaware of our presence or alert to some sound unheard by us - and we thus discern further degrees of meaning. (p. 87)

In this example, they explain that the structural aspect of a conception describes the parts of the phenomenon and their relationships as well as the contexts in which they are embedded. Although the structural aspect is separated from the referential aspect during analysis, they remain tightly connected as:

Structure presupposes meaning, and at the same time meaning presupposes structure, and since both occur simultaneously, it is impossible to separate a meaning from its context. (Marton & Booth, 1997, p. 98)

Some phenomenographers divide the structural aspect into the internal and external horizons, terms borrowed from phenomenology (Marton, 1988a, Irvin 2005c). In early definitions, the internal horizon refers ". . . to the parts that a phenomenon itself is seen to have and to the relations seen between those parts," while the external horizon refers ". . . to the relations a phenomenon is seen to have to other aspects of a greater whole of which the phenomenon is part" (Marton, 1988a, pp. 68-69). This definition is vague, especially concerning the external horizon. It does not identify what the "whole" is or how the relationship between parts of the phenomenon and this whole differ from relationships within the internal horizon.

Later publications also lack clarity. Marton and Booth (1997) describe the internal horizon as ". . . the parts and their relationships together with the contours of the phenomenon" (p. 87). Here, what the "contours of the phenomenon" refer to is ambiguous. The external horizon:

. . . refers to the way in which the phenomenon we experience in a certain way is discerned from its context, and to be more precise we should add, how it is related to its context as well. (Marton & Booth, 1997, p. 89)

While this definition establishes that the external horizon can be used to discern the phenomenon from its context, context remains undefined.

These horizons are more clearly illustrated through Marton and Booth's (1997) example of a deer in the woods:

Thus, the external horizon of coming on the deer in the woods extends from the immediate boundary of the experience - the dark forest against which the deer is discerned - through all other contexts in which related occurrences have been

experienced (e.g. walks in the forest, deer in the zoo, nursery tales, reports of hunting incidents, etc.). The internal horizon comprises the deer itself, its parts, its stance, its structural presence. (p. 87)

In this example, the external horizon includes the physical context where the deer is found as well as other places where real or imaginary deer exist. This context forms a backdrop against which the deer can be discerned. The deer's relationship with this context lends particular meanings to the deer; being in the woods, it is most likely a wild deer. Context appears to be both abstract and concrete; while zoos and forests are physical settings, nursery tales exist in a more abstract world of fiction. The internal horizon is composed of the observable parts of the deer and how they relate together, allowing the observer to make distinctions in meaning about this particular deer concerning its age, gender, health, etc. The boundary between these two horizons delimits the phenomenon from its context (Cope, 2000).

In this example, the deer, its parts, and its context are physically present for observers to see. However, most phenomena are psychological. Psychological phenomena are often fragmented; the phenomenological concept of *appresentation* is helpful for explaining how people can make complete understandings based on fragmented parts (Marton & Booth, 1997). Appresentation refers to the way that people use past experiences with an object or phenomenon to recreate it as a whole, even if only fragments of the phenomenon are present in the current situation. In other words, "that which is not seen or visible is appresented . . ." and:

> . . . although phenomena are, as a rule, only partially exposed to us, we do not experience the parts as themselves, but we experience the wholes of which the parts are parts. We do not experience silhouettes but phenomena (material or conceptual) in all their complexity of space and time. (Marton & Booth, 1997, p. 100)

People fill gaps in knowledge about phenomena by referring to previous experiences or drawing on cultural understandings; meaning can then be ascribed to the constructed whole.

Marton (2000) uses the example of a person looking at a green apple to explain the concept of appresentation:

> When looking at a green apple lying on the table we do not only experience the side of it which is turned against us, but we experience its continuation: the back - and underside, which we actually do not see. We even "see" its weight and its sourish taste, etc. We simply experience an apple with its many different aspects. (p. 114)

Drawing on past experiences with apples helps the viewer attribute meanings to the apple currently under observation.

3.9.3 Different understandings of the structural and referential aspects

While the previous section outlined the dominant interpretation of how awareness can be used to examine the structure of conceptions, other phenomenographers interpret these aspects differently. Inconsistent use of these terms within the field is largely due to the ambiguity of early definitions, discussed in the previous section. Also, while Marton and Booth's (1997) example of the deer is helpful in illustrating structural and referential aspects, it describes a physical not psychological phenomenon; psychological phenomena lack the tangible physical structure afforded by the deer.

This ambiguity over how this framework should be applied has led to multiple interpretations of the nature of these conceptual parts. For example, some researchers continue to confuse the structural and referential aspects with the *what* and *how* aspects (Karner et al., 2003; Kirk, 2002), likely drawing on Marton's (1988a) early explanations discussed in the previous section. Table 3.3 identifies some of the varied ways the

structural and referential aspects of conceptions are described. Many

phenomenographers describe the referential aspect as some form of meaning and the

structural aspect as the order or structure used to get that meaning.

While many phenomenographers have similar general understandings of the structural

and referential aspects, this is not the case with the internal and external horizon. The

external horizon is particularly contested, probably due partly to the ambiguous

definitions and limited examples available.

Table 3.3 - Understandings of the referential and structural aspects

Author	Referential Aspect	Structural Aspect
Bruce (1996, p. 6-2)	Global meaning associated with the conception	Shows how that meaning is constituted through a particular arrangement of parts of the conception
Cope (2000, p. 17)	The meaning inherent in the structure	The internal and external horizons
Karner et al. (2003, p. 45)	The overall meaning; part of the how aspect	The individual's ability to organise information, comprehend the whole from a context, and discern the parts and their relationships within this context
Kirk (2002, p. 56)	The 'what' aspect; meanings that are attributed to what is experienced by those who experience it	The 'how' aspect; the way that 'what' is experienced and its component parts are delimited and related to each other
Linder and Marshall (2003, p. 273)	Meaning dimension	Structural dimension
Tan and Prosser (2004, pp. 270-271)	Meaning discerned from the structure of each conception within themselves and against each other	Thematic emphasis obtained by discerning the theme in each conception against its context, as well as the relationships between its constituent parts

Even in applications of this framework, such as Marton et al.'s (1993) study of conceptions of learning, the use of the external horizon remains unclear. Within Marton et al.'s (1993) study, external horizons are identified for both *what* and *how* aspects of conceptions, although often both aspects shared the same external horizon. External horizons are described broadly. For example, in Category 1 (Learning is increasing one's knowledge), Category 3 (Learning is applying), and Category 5 (Learning is seeing something in a different way), the external horizon for both the *what* and *how* aspects was said to be the student's life world. Other categories had similarly broad external horizons. For example, Category 2 (Learning is memorising and reproducing) has some educational control or assessment as its external horizon. While the external horizon for Category 2 is more specific than Categories 1, 3 and 5, it still lacks a precise boundary; it is unclear what "educational controls" might include. This study did not make fine distinctions or use sufficient data to illustrate clearly how classifications relating to the external horizon are made.

While some current understandings of internal and external horizons appear to be derived from definitions put forward by Marton and colleagues (Rovio-Johansson, 1999), others appear to be based purely on understandings of awareness (Barnard et al., 1999; Edwards, 2004). Some of this variation is captured in Table 3.4.

Some phenomenographers appear to classify data into these horizons based on how clearly participants describe and appear to understand the conceptual parts (Barnard et al., 1999; Bruce et al., 2004; Edwards, 2004); while concepts and parts within the internal horizon are considered to be clear and in focus, concepts and parts in the external horizon are fuzzy or blurred.

Table 3.4 - Understandings of the referential aspect, internal horizon, and external horizon

Author	Referential Aspect	Internal Horizon	External Horizon
Barnard et al. (1999, p. 222)	An experience or understanding	Designated characteristics of a phenomenon based on understanding that is both clear and accepted; delimited in relation to related parts of a conception	The outer boundary of understanding, where explanation and ideas become fuzzy or unclear
Bruce et al. (2004, p. 147)	Critical differences in meaning	The focus of the participants' attention, or that which is figural in awareness and simultaneously attended to	That which recedes to the ground, essentially the perceptual boundary associated with participants' ways of seeing
Cope (2000, p. 34)	Meaning	The aspects of the phenomenon simultaneously present in the theme of awareness and the relationships between these aspects	The thematic field and the margin
Reid and Petocz (2004, p. 49)	Conceptual understanding	'How' aspect of learning consisting of three component parts: the actor, the act, and the object acted upon	The students' 'lived world'
Rovio-Johansson (1999, p. 7)	Meaning aspect	The parts and their relations to the whole, which they constitute	The relation between the object and the context

For example, in Edwards' (2004) study of student experiences of information searching, within the first category, the focus is on the search topic and she explains that:

> . . . within the internal horizon circle, the worldview is clear and in focus. The internal horizon shows us the primary focus of this experience. Here, the primary focus is the topic, with a strong focus on the search box or search window. (p. 110)

While this conceptualisation of the internal horizon is similar to that of Marton and Booth (1997) in that the parts of the conception (search box, search window, topic) are present within the horizon, she also addresses the clarity with which participants express these parts.

Edwards' (2004) conceptualisation of the external horizon is different to Marton and Booth's (1997). Edwards (2004) explains that:

> . . . within the external horizon limits, the lens is not as clear, nor the items within it in focus. In this experience, the unfocussed outer lens shows us there is only ad hoc attention to planning a search strategy. (p. 111)

Here, the external horizon is not used to establish a context for the phenomenon; instead it helps identify ideas remaining conceptually unclear to participants. These ideas are not pulled together to form a defined context; they remain on the edge of the conception within Edwards' diagrams.

Cope's (2000) use of the external horizon in his study of student conceptions of information systems is different again. While his understanding of the internal horizon is almost identical to Marton and Booth's (1997), his description of the external horizon links directly to Gurwitsch's (1964) layers of awareness, providing another interpretation of context. Cope (2002a) explains that:

> The external horizon consists of the thematic field and the margin, that is, all experiences that are part of awareness at a particular instant but which are not thematic. The external horizon as an area of awareness forms the context in which the theme sits. (p. 68)

This explanation of context is far more abstract than examples given by Marton and Booth (1997). As Cope (2002a) draws the margin into the external horizon, this

suggests that parts unrelated to the phenomenon could exist within the context; within Gurwitsch's (1964) margin are thoughts unrelated to the phenomenon like the person's age, gender, or health.

In practice, Cope (2000) uses only concepts and parts related to the phenomenon to create the context within the external horizon. He utilises this horizon to explicate what the phenomenon is and is not. For example, in Cope's (2000) first category, "A personal search through a static information source," the external horizon:

> Delimits an IS to a personal search of a source of static information. The person is **not** considered to be part of the IS, but the process of searching is. (p. 115)

As categories ascend, increased participant awareness may mean that aspects previously part of the external horizon become part of the internal horizon (Cope & Prosser, 2005).

3.9.4 The structural and referential aspects as conceptualised in this study

While the primary focus of this doctoral study is on teacher conceptions of student engagement, a secondary purpose is to investigate the utility of using frameworks based on principles of awareness and intentionality simultaneously within phenomenographic research. As there are clearly divergent understandings of awareness, it is necessary to clearly explicate how this framework is used within this study. Marton and Booth's (1997) conceptualisations are primarily utilised, however Cope's (2002) work is used when defining the external horizon because of the previously discussed limitations in Marton and Booth's (1997) definitions and examples.

Within this study, the referential aspect refers to the meaning participants attribute to the phenomenon, in this case, the meaning attributed to student engagement. The structural aspect is divided into internal and external horizons. The internal horizon includes parts

participants considered to be integral to student engagement and the relationships between these parts. The external horizon describes the contexts where the meaning can exist. Context is defined as the environment, physical or perceived, where participants suggest the phenomenon can be present. Descriptions of this context must include things appearing in the environment that are not part of the phenomenon but that may affect it in some way.

3.10 Chapter summary

This chapter examines the phenomenographic approach, explaining why it is particularly suited to investigating the research question posed in this study. Phenomenography is a useful approach to address the research question because it is a qualitative approach that allows researchers to identify and map variation and can be used to make useful contributions to knowledge.

As within phenomenography conceptions are considered to be the central form of knowledge, the majority of the chapter focuses on theoretical understandings of conceptions. After reviewing the general ontological and epistemological assumptions that underpin phenomenographic work, assumptions about the relationship between language and conceptions are examined. Two frameworks useful for analysing conceptions are then reviewed, one based on principles of intentionality and the other on understandings of awareness. Both will be used simultaneously to investigate if it is useful to use both together when conducting phenomenographic research. These sections explicate how the elements of these frameworks are defined for the purposes of this research project. Figure 3.3 shows how these frameworks fit together within this study.

Student Engagement

How Aspect
How student engagement
is facilitated

What Aspect
What student
engagement means

Structural
Aspect

Referential
Aspect

Structural
Aspect

Referential
Aspect

Structural
Aspect

Referential
Aspect

External
horizon

Internal
horizon

External
horizon

Internal
horizon

External
horizon

Internal
horizon

Act of
Learning

Indirect Object
of Learning

Direct Object
of Learning

Figure 3.3 - The structure of conceptions of student engagement

The next chapter will describe the research design and explain how it is used to answer

the research question. The second half of the chapter will explicate the process of

analysis used to generate the outcome space presented in Chapters 5 and 6.

Chapter 4
Research design
and analytical process

4.1 Introduction

The research design described in this chapter was developed to address the question:

"What conceptions of student engagement in learning are held by secondary English teachers in Central Queensland?" As this question is concerned with conceptions, a phenomenographic approach is considered appropriate for this study.

Unlike many research traditions, there is no "template" of phenomenographic procedures. Marton (1986) explains:

> . . . we cannot specify exact techniques for phenomenographic research. It takes some discovery to find out the qualitatively different ways in which people experience or conceptualize specific phenomenon. (p. 42)

As the research process is one of discovery, researchers may need to use a range of techniques to uncover participant understandings of the phenomenon. Researchers using a phenomenographic approach ". . . research objects in a sense of creating methods adapted to the objects" (Svensson, 1997, p. 162). Hence, it is important to describe the tools used and explain why they are appropriate for investigating the phenomenon under study.

This chapter begins by describing the research design, drawing on the theoretical assumptions and frameworks discussed in Chapter 3. The second part of the chapter explains the process of data analysis, reviewing literature describing the analytical steps, then illustrating each step using empirical data from the study.

4.2 Creating the research design

Once a phenomenographic approach had been selected to answer the research question, data collection tools were generated. These were then tested in a pilot study and systematically reviewed throughout the entire data collection process. This section explains why specific data collection tools were chosen and how these tools were tested and used during data collection and analysis.

4.2.1 Phenomenographic semi-structured interview

Phenomenographic semi-structured interviews are the most common data collection tool used in phenomenographic research. They are described as deep and open:

> . . . open means that while a structure might be planned in advance, to approach the phenomenon in question from a various interesting perspectives, the interviewer is prepared to follow unexpected lines of reasoning that can lead to fruitful new reflections. . . . deep means that particular lines of discussion are followed until they are exhausted and the two parties have come to a mutual understanding. (Booth, 1997, p. 138)

The nature of phenomenographic interview requires the researcher to often adopt a "naïve" stance to encourage participants to fully articulate their perspective.

While phenomenographic semi-structured interviews are very similar to non-phenomenographic semi-structured interviews, phenomenographic ones have two defining characteristics. First, the focus of a phenomenographic interview is always on uncovering participant conceptions about a specific phenomenon. Questions are designed to encourage participants to think and reflect (Pramling, 1996). Second, phenomenographic interviews seek to draw out participant understandings by bringing participants to a level of meta-awareness and reflection about the phenomenon being discussed (Marton & Booth, 1997, pp. 129-130). Questions asked allow participants "… to account for their actions within their own frame of reference, rather than one imposed

by the researcher" (Entwistle, 1997, p. 132). As data are collected using a second-order perspective, participants must be encouraged to reflect on thoughts, understandings, and experiences. Sometimes this reflection occurs spontaneously, but other times the researcher must probe to elicit this type of response.

Phenomenographic semi-structured interview was chosen over forms of data collection like written responses (Bruce, 1996); focus groups (Hyrkas & Paunonen-Ilmonen, 2001); and video taped observations (Rovio-Johansson, 1999) as this tool allows researchers to seek clarification during data collection. Questions can be used like, "Could you explain that to me further?", "What do you mean by that?", and "Is there anything else you'd like to say about that?" (Bowden, 1996, p. 59). This iterative process allows researchers to elicit maximum depth from participant responses. However, researchers must be careful what they ask participants as questions cannot be used to lead someone to state a particular point of view.

4.2.2 Constructing phenomenographic questions

Semi-structured interviews, unlike structured ones, use few pre-planned questions. The majority are *uptake* questions created during the course of the interview to build on and probe what a participant has already said. Although participants should be allowed to speak freely, the interviewer must retain some control of the subject matter to assure that the jointly understood topic remains the phenomenon under investigation. This can be done by using questions designed with a figure-ground relationship (Marton et al., 2004). Within a question, the ground is assumed to be shared knowledge, while the figure provides the dimension for variation. For example, the question "Have you stopped working on your thesis?" [2] presupposes that you have been working on your

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[2] After Marton et al. (2004, p. 30).

thesis and queries whether you have stopped the action or not. In other words, "working on your thesis" is ground and "have you stopped" is figure.

The wording of questions is important because ". . . language . . . plays an important role in not only representing the structure of awareness, but also in changing it" (Marton et al., 2004, p. 30). Questions used during interviews must primarily use words spoken by participants to avoid introducing concepts into their awareness that may change the way they explain conceptions.

Eight questions were designed for the pilot study. These questions asked about participants' understandings of student engagement and probed for these conceptions' parts and contexts to establish the internal and external horizons. Bruce's (1996) second eliciting device from her PhD study of information literacy served as a model for the first question. Her device, "Tell the story of a time when you used information effectively" (Chapter 5, p. 22) was modified into, "Tell the story of a time when students were engaged in your class." This device focused primarily on the *what* aspect of student engagement and was designed to get teachers to situate their understandings in a concrete setting, allowing both structural and referential aspects to be introduced. Getting participants to establish a concrete setting is considered important because Marton and Pong (2005) found that:

> . . . the two aspects [structural and referential] could only be distinguished when the interviewees discussed concrete cases and not when they gave abstract conceptual answers. (p. 345)

The second question, "Why do you think these students were engaged?" provided follow-up and was designed to stimulate meta-awareness and reflection on the anecdote shared initially.

The third question, "What specific strategies do you use to foster student engagement?" was designed to gather information on the teachers' understandings of how to facilitate student engagement (*how* aspect) by getting them to explain their role in engaging students. They were asked to talk about this in concrete terms through the request for "specific strategies." The fourth question, "Are there some students who seem to be more or less likely to engage in the classroom?" was asked because ". . . in order to experience something, a person must experience something else to compare it with" (Marton et al., 2004, p. 16). This question encouraged participants to more specifically define and explain the reasons for student engagement by contrasting them with causes of disengagement.

Question five was also a modification of one of Bruce's (1996) questions. Bruce's eliciting device, "Describe your picture of an effective information user" (Chapter 5, p. 22), became "Describe your picture of an engaged student." This device was used to get participants to identify the parts they saw as comprising student engagement to establish the internal horizon of the *what* aspect. Question six, "What does student engagement mean in a school context?" was designed to get participants to speak directly about the meaning of student engagement, similar to questions found in other studies (Saljo, 1979). While some researchers find direct questions like this problematic as these can force participants to narrow their understanding into a concise definition (Bowden, 1996, p. 58), this question was designed to allow participants to reflect on their understanding of student engagement. This question also related to the context of student engagement (the external horizon), as participants were generally asked to explain what "school context" meant in follow-up questions.

The last two questions of the pilot study asked about participant understandings of the current Education Queensland policies that provide direction on how to facilitate student engagement. The first question was designed to gauge participant knowledge of current reforms, asking, "How familiar are you with current Education Queensland reforms? Have you read them, attended training, etc.?" The second asked was, "What are these policies trying to change to promote higher levels of student engagement in school?" These eight questions were trialled in the pilot study.

4.2.3 The pilot study

In September 2004, after ethical clearance had been obtained from Education Queensland and Central Queensland University[3], a pilot study was conducted. Three high school teachers were interviewed using the trial questions appearing in Figure 4.1 below. The group included two females and one male. One of the females was a first year teacher and the other had ten years of experience. The male teacher was completing his second year of teaching.

4.2.4 Results of the pilot study

After data had been transcribed from the initial interviews, they were analysed according to phenomenographic protocol. The interview questions were then evaluated based on whether they had elicited participant data useful for answering the research question. Once these data were analysed, it became apparent that not all teachers were equating the term student engagement with student engagement in learning. However, this unexpected result was considered important and data continued to be collected about conceptions of student engagement seemingly unrelated to learning.

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[3] See Appendix A

Figure 4.1 - Pilot study participant handout

While most questions worked well, problems were detected with questions four, seven and eight. When asked question four, participants seemed to experience difficulty talking about engaged and disengaged students simultaneously. In the main study, this question was separated into two questions: "Are there some students who seem more likely to engage?" and "Are there some students who seem less likely to engage?"

Questions seven and eight failed to provide useful data. Preliminary results indicated most teachers were generally unaware of policies and reforms, although they were familiar with some when prompted with program names and descriptions. This line of questioning was significantly modified for the final study. While question seven was retained, it was rewritten to focus on specific policies, reading:

> Of all current policy reform documents, the Education and Training Reforms for the Future package most explicitly articulates engaging students in learning as its goal. How familiar are you with this set of policies? Have you read them, attended training, etc.?

A diagram of relevant ETRF policies was created to prompt participants.

Question eight was replaced by an eliciting device similar to one used in Irvine's (2002) phenomenographic study of parent conceptions of early childhood education. In Irvine's study, participating parents read two policy excerpts before being asked, "What do you think about this view of parents in ECEC?" (p. 12). In this study, the eliciting device was used to get participants to reflect on ways Education Queensland documents suggest student engagement could be facilitated. Participants were asked to read Position Statement 5 from *The Middle Phase of Learning: A Report to the Minister* (Education Queensland, 2003d, p. 15), reviewed in Chapter 2 of this thesis. They were then asked a series of reflective questions about their practice compared to the policy objectives. The new prompt read:

> Read Position Statement 5 from *The Middle Phase of Learning: A Report to the Minister*. This statement outlines key elements to achieving engagement and success for students that underpin the Middle Phase of Learning documents.

- According to this Position Statement, what sorts of things do you believe teachers like yourself should be doing to increase student engagement?

- Which of these things do you feel that you are already doing? How well do you think you are doing them?

- What kind of changes might you make in your teaching practice to increase student engagement?

The new participant sheet also included questions on demographic information including age group, number of years teaching, subjects taught, and school site[4].

While the revised question four was useful in the final study, even the modified forms of questions seven and eight revealed little useful data relating to the research question. As data analysis occurred simultaneously with data collection, once it became clear

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[4] The revised interview schedule is located in Appendix C

these last two questions were not eliciting useful data on understandings of student engagement, they were no longer asked; data generated from them were disregarded.

4.3 Implementing the research design

Following the pilot study, phenomenographic semi-structured interview was selected as the data collection tool for the main study. While the initial research design included multiple interviews with each participant to confirm results, after closer reading of phenomenographic literature, this design was rejected as it conflicts with the theoretical principles used in this study.

According to phenomenographic assumptions about language discussed in Chapter 3, conceptions identified within data are representative of understandings within the sample group at the time when the interviews take place (Marton et al., 2004). As access to language changes, the ways conceptions are described are likely to change as well. Follow-up interviews should be viewed as a new set of data, unable to confirm the original set, even though they are likely to be similar. For this reason, member checking is not standard practice within phenomenographic research (Åkerlind, 2002). Also, it becomes difficult to confirm interpretations without associating individual participants with specific categories, raising the issues about the truth of participant data discussed in Chapter 3.

Each participant took part in a phenomenographic semi-structured interview lasting approximately forty-five minutes. As the first set of interview data elicited sufficient information to establish that a range of conceptions was present within the sample population, no further data collection was deemed necessary. The following sections

will explain how participants were selected and how their data were transcribed and organised.

4.3.1 Selecting the sample

Within this study, sample size was not initially set. During phenomenographic studies, data must be gathered until *saturation* is reached, occurring when the researcher is satisfied that the data collected illustrate the full variation of conceptions present within the sample. Samples sizes needed to reach saturation vary. While Patrick (2000) interviewed 33 teachers about conceptions of the object of study, Trigwell (2000a) interviewed 15 people when studying conceptions of phenomenographic research. Soon and Barnard (2001) only interviewed two participants when investigating HIV patients' conceptions of counselling.

When choosing participants, specific criteria were used. Each had to be a current secondary school teacher working in Education Queensland's Central Coast District and teaching English. Current secondary school teachers were defined as those working part- or full-time instructing students in grades eight to twelve, excluding retired teachers, teachers working in administrative positions, and teachers temporarily working elsewhere (at a university, district office, etc). Teachers were only recruited from Education Queensland schools, ensuring all participants were working under Queensland government policies. Education Queensland's Central Coast District was selected partially out of convenience, but also because educational research is seldom conducted in regional areas. This district includes schools in Rockhampton, Yeppoon, Biloela, Gladstone, and Moura. English teachers were defined as those who had taught Junior English, Literacy, English Communications, or Board English within the previous year; these teachers did not have to be English trained.

English teachers were selected for two reasons. First, these teachers work with all students as English is a required subject. Second, English is the secondary subject where most literacy skills are taught, which is important as improving literacy is considered a government priority (Department of Education and the Arts, 2006; Education Queensland, 2000a, 2002a).

Participants were recruited from three high schools. All English teachers at the schools were informed of the nature of the project and were invited to participate. Eighteen participants volunteered and were accepted into the study. At the conclusion of these interviews, an additional 3 participants were recruited as the primary researcher was unsure if saturation had been reached. One participant later withdrew from the study, leaving a sample of 20. Within the sample, 7 teachers were male and 13 were female. Tables 4.1 and 4.2 give some demographic information about participants, provided to show the variation present within the sample.

Table 4.1 - Participant age

Age	20-24	25-29	30-35	35-39	40-44	45-49	50-54	55-59	60-64
Number of participants	2	2	2	5	1	3	3	1	1

Table 4.2 - Participant teaching experience

Years teaching experience	1-5	6-10	11-15	16-20	21-25	26-30	30+
Number of participants	6	6	1	2	2	1	2

Although the sample was composed of English teachers, it became apparent very early on in the study that these teachers considered themselves to be teachers of other subject areas as well. In interviews they often shared anecdotes of experiences they had teaching a range of subjects including maths, drama, history, music, and the arts. Some also discussed primary teaching experiences. Although "English" teachers had been selected, it seemed wrong to pigeonhole participants with that title as their other subject areas also played heavily in their identity and experiences as a teacher. Therefore, in this study, teachers are referred to as secondary teachers as opposed to English teachers.

4.3.2 Collecting and transcribing data

Between October 2004 and February 2005, all participants took part in a semi-structured interview of approximately forty-five minutes, recorded to audiotape. To protect identity, all selected a pseudonym to use during the interview process. In three cases, the interview was conducted during two sessions to suit participant schedules. Detailed summaries were written after each interview to record each participant's key points. These notes helped identify when saturation had been reached and were referred to regularly during the data collection phase.

Simultaneously to data collection, transcription began. Participants' words were transcribed verbatim for meaning. Other sounds, like pauses or noticeable changes in tone of voice, that contributed to meaning were also included in the transcript. Words used to describe these sounds were placed in brackets so they would not become confused with the actual text.

All transcripts were checked multiple times against the audio recording for accuracy. While data were not edited during the analytical process, after analysis, quotations selected to represent categories were edited grammatically to assist readers. For example, Christine's passage below was edited as follows for the final draft of the thesis:

> Original- Christine: Um, well, I've got to sort of think about my three classes this year if you're talking about me personally and at various times, some kids will be more engaged than other kids, but I can't think of anybody who is always not engaged. I can think of some kids who always appear to be engaged, but whether they are or not is a different matter. But um, with that English communication class there are like, a couple of kids in there in particular that have been extremely difficult to engage because um, they don't want to be at school, they've got problems going on in their own little lives and they're very, um, like you know. (CH1.034)

> Edited version- Christine: . . . At various times, some kids will be more engaged than other kids, but I can't think of anybody who is always not engaged. I can think of some kids who always appear to be engaged, but whether they are or not is a different matter. But with that English communication class, there are a couple of kids in there in particular that have been extremely difficult to engage because they don't want to be at school. They've got problems going on in their own little lives. (CH1.034)

In the second version of the passage, place-keeping words like "um," "well," and "like you know" have been deleted. Punctuation has been added for readability. The ellipsis at the beginning of the passage indicates that a phrase or sentence has been omitted. In this case, the leading sentence was been omitted as it does not relate to the meaning of the passage.

4.3.3 Organising the data

After transcription, all utterances were numbered so they could easily be located within the data using a system recommended by Lankshear and Knobel (2004). An example of this system is present below:

> CH1.003 Interviewer: Why do you think they were engaged?

> CH1.004 Christine: Because it was something they wanted to do and they had a choice as to what they did. So basically they were interested in it; they had a choice

The CH in the code refers to Christine, the participant's pseudonym. The number 1 specifies that these data come from her first interview. The three decimal places are used to count each utterance within the interview; there were between 100 and 1000 turns in most.

After labelling data, transcripts were read multiple times. Key concepts related to student engagement were underlined. As the interviews had generated hundreds of pages of data, the computer software program NVivo was utilised, primarily as a data management system. NVivo was considered, "just a tool for analysis," because:

> . . . good qualitative analysis still relies on good analytical work by a careful human researcher, in the same way that good writing is not guaranteed by the use of a word processor. (Gibbs, 2002, p. 13)

NVivo is a version of the program NUDIST, developed in the 1990s. It was selected because it offered tools useful for data organisation and phenomenographic analysis (Gibbs, 2002; Walsh, 2003). It is a code and retrieve program that allows researchers to mark passages with codes (called nodes) within the transcripts (called documents), and then retrieve data coded to that node into a separate document where they can be analysed. This separate document could be considered a "pool of meaning" in line with Marton's (1986) descriptions of the process of phenomenographic analysis.

The program also has useful data management tools. For example, Data Bites are internal annotations that can be added to documents to record researcher comments. They are not visible when reading the document unless the researcher clicks on their icons, so they do not confront the researcher and potentially influence new reflections.

Coding can also remain invisible in the document, allowing fresh readings of transcripts. Revisiting a "blank" document minimises the influence of previous coding. Different sets of coding can then be compared by making all coding visible.

While NVivo has many analytical tools, few were used as its role was primarily for data management. The software was not introduced until transcripts had been read multiple times and key themes had been identified and highlighted by hand. Data Bites were used to record the contexts of utterances before they were removed into pools of meaning. Using electronic copies of transcripts facilitated easy movement between documents.

Once data had been labelled, phenomenographic analysis began. The next sections outline the stages of analysis: creating categories of description, discerning the internal and external horizons, and ordering the outcome space.

4.4 Process of analysis: Creating categories of description

Ashworth and Lucas (1998) articulate that many phenomenographic studies do not sufficiently describe the analytical process, recommending:

> . . . that greater consideration be given to the process of phenomenographic research, that the reporting of phenomenographic research should be more explicit about the nature of the process engaged in . . . (p. 429)

Other researchers agree that phenomenographers seldom sufficiently explain their analytical process (Francis, 1993; Hasselgren & Beach, 1997). To fulfil this recommendation, the subsequent sections aim to explicate the process of phenomenographic analysis used in this study.

The phenomenographic process begins by establishing categories of description. Four analytical processes, introduced in Chapter 3, are used to create these categories of description: differentiation, comparison of meaning, reduction, and abstraction (Svensson, 1997). This section reviews literature describing how to create categories of description and then illustrates this process using data from this study.

4.4.1 Creating categories of description: Procedure

When conducting phenomenographic data analysis, the first task is to bracket pre-existing ideas, explained more thoroughly in Chapter 3. Phenomenographic analysis within this study follows Marton's (1986) procedures. This process begins with differentiation. After several readings of the data, "utterances found to be of interest for the question being investigated are selected and marked" (Marton, 1986, p. 42). Sjostrom and Dahlgren (2002) recommend basing judgments on three indicators:

1. Frequency - how often an idea is articulated

2. Position - where the statement is positioned; often the most significant elements are found in the introductory parts of an answer

3. Pregnancy - when participants explicitly emphasise that certain aspects are more important than others. (pp. 341-342)

Once data relating to conceptions have been identified, passages are analysed and interpreted within their contexts before being removed to create *data pools*. The focus of this stage of analysis is on detecting conceptions articulated by multiple participants. Data pools with similar meanings are grouped together into *pools of meaning*. An individual utterance then has two contexts: its original interview and its grouping (Marton, 1986).

Not all phenomenographers agree that passages of data should be removed from transcripts. Bowden (2000a, 2000b, 2005) proposes that utterances must remain within their contexts to avoid losing the intended meaning of the statements. In his own phenomenographic studies, Bowden (2000b) only analyses transcripts as wholes because keeping utterances contextualised is difficult ". . . to do if a cut-and-paste construction of the pool of meaning is undertaken" (p. 12). He warns that using Marton's (1986) approach can allow researchers, especially novices, to unwittingly misinterpret data.

However, Bowden's (2000a, 2000b, 2005) techniques are not always practical because of the volume of data generated in some studies. Working with only complete transcripts may hinder high quality analysis by limiting a researcher's ability to efficiently compare and contrast meanings. Bowden's (2000a, 2000b, 2005) method is also problematic when multiple conceptions arise within one participant's data set, an issue occurring in many studies (Bruce, 1996; Cope, 2000; Marton et al., 1993; Marton & Pong, 2005). Marton's (1986) technique allows multiple conceptions to be identified and placed into different pools of meaning for further analysis. Also, working with whole transcripts can lead to an individual instead of collective focus (Åkerlind, 2002).

It is, however, important to be aware of the problems associated with removing utterances from their contexts. Research suggests that utterances can take on other meanings in different situations (Svensson & Theman, 1983). While quotations may be removed to form the pools of meaning, judgments on their meaning should consider the original context (Marton, 1986) and the full transcript must be frequently consulted when making judgements about an utterance's meaning.

Once the data have been preliminarily analysed, comparison of meaning takes place between pools. Pools of meaning are scrutinised to detect their distinguishing features, often leading to movement between pools. Data are continually sorted and re-sorted and the criteria of categories are ". . . tested against the data, adjusted, retested, and adjusted again" (Marton, 1986, p. 43).

Reduction is the next stage in the process, occurring as data are condensed so important features can be discerned. During this process ". . . borderline cases are examined, and eventually criterion attributes for each group are made explicit" (Marton, 1986, p. 43). As criteria are developed, there is ". . . a decreasing rate of change and eventually the whole system of meanings is stabilized" (Marton, 1986, p. 42). Once each pool has a set of criteria and the system of meaning is stable, conceptions found in the pools of meaning are abstracted into categories of description (Marton, 1981a). Categories of description must fulfil the following criteria in order to be considered high quality:

- Individual categories should each stand in clear relation to the phenomenon so that each category tells something distinct about a particular way of experiencing the phenomenon.

- Categories have to stand in a logical relationship with each other, a relationship that is frequently hierarchical.

- The system should be parsimonious, meaning that as few categories should be explicated as is feasible and reasonable for capturing the critical variation in the data. (Marton & Booth, 1997, p. 125)

Once preliminary categories of description are established, data can be split into separate *what* and *how* sub-pools. Utterances placed in the *what* sub-pool relate to the meaning of the phenomenon, while *how* data show how the participant conceptualises this meaning as being facilitated (Pramling, 1983). As some passages contain elements

of both *what* and *how* aspects, they may be coded to both, like this passage describing a conception of learning:

> S: It's to increase your knowledge . . .
>
> E: Hmm . . . could you say something further?
>
> S: Well, you kind of start with a small bag and there is not much in it, but the longer you live, the more you fill it up . . . (Saljo, 1979, p. 13)

The participant begins by explaining that learning is quantitatively increasing knowledge (*what*) and goes on to explain that this occurs when people accumulate knowledge (*how*). Criteria are developed to describe the features of each aspect (*what* and *how*) and horizon (internal and external). These aspects and horizons are part of the category of description, helping to elucidate further distinctions between categories.

Marton's (1986) descriptions of the process of creating categories of description become less explicit in later papers, showing perhaps a trend towards greater flexibility. However, more recent texts continue to use terminology like "pools of meaning" (Marton & Booth, 1997), indicating that this procedure is still preferred, even though it is ". . . tedious, time-consuming, labor intensive and interactive" (Marton, 1986, p. 43).

4.4.2 Creating categories of description: An example of process

This section illustrates how the procedures described in the previous section were executed. Throughout the process of analysis, care was taken to bracket preconceived ideas. Several steps were used to minimise researcher subjectivity. First, during data collection and preliminary analysis, no academic literature about student engagement was read; scholarly reading was limited to methodological papers. The theoretical model presented in Chapter 2 was developed primarily from reading that followed the qualitative data analysis; only a small amount of preliminary reading was done prior to

the qualitative study. Second, analysis was conducted from the second-order perspective. The researcher tried to faithfully record and interpret data from the participants' perspectives. Participant data were not judged against the researcher's values or existing knowledge, although they were compared with other participant data. Third, no codes were generated prior to looking at the data; all were developed from the transcripts using participant words.

After steps had been taken to bracket preconceived ideas, hard copies of the transcripts were read several times. Word and phrases expressing key ideas were underlined and assigned preliminary codes; comments were written into the margins to differentiate between meanings in the data. The frequency of each idea was then assessed (Sjostrom & Dahlgren, 2002) and a table identifying most frequently referred to themes and the number of passages coded to each can be found in Appendix D.

Identifying the frequency that codes appeared in the transcripts helped reduce the data into a smaller number of pools of meaning. Preliminarily, data were assigned most frequently to the following codes that had been generated from the data: challenge, conceptions, interest and enjoyment, motivation, confidence, owns learning, participation, relevance, student-teacher relationships, technology, success, values, and student ability. For example, 136 passages were identified that related engagement to student interest in and enjoyment of the class and materials being studies. However, this frequency was not enough to establish that the data coded to this theme represented a conception.

According to Sjostrom and Dalhgren (2002), the position of the concept within the utterance and the pregnancy or emphasis the participant places on the idea are also important to consider. While multiple participants made similar statements relating engagement to student interest and enjoyment, these statements required further analysis to confirm that they did represent a commonly held conception. To explicate how position and pregnancy were evaluated in the data, it is useful to examine three typical passages of data coded to this theme and the contexts in which they were uttered. For example, Emily, describing a time her class engaged in a current events based activity, explained:

> I think because they were overwhelmingly passionately interested in it; their mind was there. That was because it was an opinionated piece and it was topical; for them that was topical. For them, what I thought was interesting and topical was not necessarily what they thought, so I think it was basically looking at what they wanted to do. (E1.024)

Betty also talked about student interest leading to engagement. She stated:

> You have to have really structured lessons for boys and they have to be interesting. And I know it's hard as a teacher, but you have to have interesting lessons otherwise they're not going to be engaged at all. But at the same time, they like variety, and you can't keep doing the same thing. (BT1.020)

Caitlyn described why student engagement occurred in her classroom saying, "I guess either they are enjoying what they are doing, you know, having fun, or something has really interested them" (CA1.064).

When examining these three passages, the position of the concept of student interest within each utterance is important. All three participants mentioned student interest within the first sentence of their statement, showing the significance of the idea within their response. Within these statements, there are also examples of pregnancy where participants clarify the meaning of their statements, emphasising key points. For example, Betty mentions that without interesting lessons, students will fail to engage.

While passages coded to this theme did suggest a similar conception of student engagement because of their frequency, position, and pregnancy, before data could be pulled from their contexts to form a pool of meaning, two steps were required:

1. Data needed to be analysed in context to ensure that the participant's meaning was accurately represented

2. Data excerpts needed to be proved representative of a larger section of data (Irvin, 2005a, p. 114)

In line with these steps, NVivo software was not utilised until time had been spent analysing the transcripts as wholes. Tentative codes generated from the data, such as *Interest*, were written in the margins of the transcripts next to underlined passages. Interviews were coded by hand and attention was paid to passages that suggested different interpretation of the coded data. When deciding how an utterance should be coded, the following questions were used to guide analysis:

1. Do these data fit an existing code or should a new one be created to accommodate this meaning?

2. Would applying this code be consistent with data found elsewhere in this person's data set?

Care was taken during this process as similar utterances can have very different conceptual meanings (Svensson & Theman, 1983). For example, many teachers used the phrase "switched on" to describe engaged students, but not all uses were conceptually the same. Some participants were describing enthusiastic student participation, while others were referring to the process of student cognition. After data had been marked with the codes generated from the data, data were entered into NVivo. Codes developed from the data were used as preliminary nodes. Once the data had been coded, they could be removed to become part of a data pool. These data pools were

compared and contrasted until the meanings stabilised. These pools then became pools

of meaning. Figure 4.2 captures this complex process.
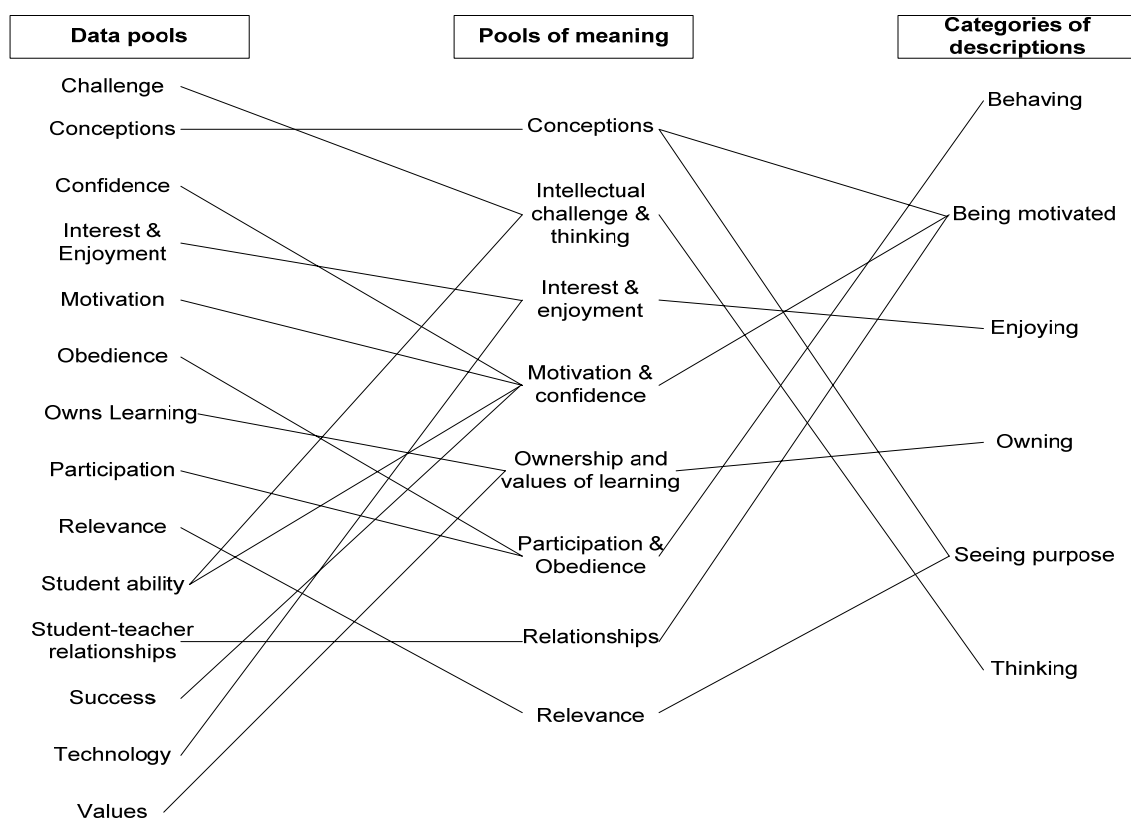
Figure 4.2 - The process of data reduction

The fourteen major data pools were reduced into eight pools of meaning. Many of the

data pools merged when, through analysis, it became apparent that two pools were

actually referring to the same core conception. For example, data within the Success

pool were suggesting that experiencing success raises student confidence and

motivation, linking closely to the meanings found in the Motivation data pool. For

example, Christine said:

> I give them a lot of success. Like make sure that they're having success.
> Because again, I believe that they're all capable of doing something quite well.
> So I really concentrate on that, saying "oh gee, that's really good." Letting them
> see that they can succeed and really emphasising the positive aspects of what
> they can do. (CH1.044)

Here she speaks of success and positive reinforcement being used to motivate students and build their confidence. These similarities allowed most data from Success to be merged with the existing Motivation pool to form a pool of meaning.

After the initial phases of analysis, the original pools of meaning were reduced into 8 data pools. Student engagement was seen as relating to:

- Participation and obedience

    . . . I just asked them to take their books out and to get started and before long, I knew that they were all at it and they all stayed [pause] interested in what they were reading. So I was really quite amazed because you don't often find that all kids in the class are totally occupied when you are reading. Some of them get disrupted very easily and distracted and it was just so nice to have a very quiet room for at least ¾ of the lesson at least, so that was good. (BH1.004)

- Relevance

    You know, so, it's all about relevance and where it can take them. And sitting in a classroom and doing a certificate III in office management to a lot of them, to some of them doesn't seem relevant; they need to experience that office. And I think that's where we need as a city and as a school to try and get more community involvement, more partnerships, as they call them, with industry. So that if we need to send 25 or 30 students out, we can distribute them. Even if it's just for two days a week for a couple of weeks, you know, they go out they do their [work experience] and they come back and then they report… they'd probably see it as a relevant thing, and it gives them, as I keep saying, that view to what they will be expected to do maybe in the future… (JK1.131)

- Interest and enjoyment

    I guess either they are enjoying what they are doing, having fun, or something has really interested them. (CA1.064)

- Intellectual challenge and thinking

    Well they're the kind of kids that when you walk in the room, they're ready to start. They're keen to start. They're the kind of key factors that show they are engaged in thinking about what's going on in the lesson. They're extrapolating beyond what you say and thinking about it and giving you something else back besides just information or just what you want to hear or what they think you want to hear. They're the kids that are thinking I suppose. (RO1.115)

- Ownership and value of learning

> [Engagement is] being on task, being interested and involved in what they are doing at all times. Like owning the stuff that they do and valuing it. Doing it because they value it and own it. (D1.062)

- Motivation and confidence

> . . . engagement would be motivation. I won't say high motivation, but we'll say reasonable motivation, reasonable confidence and together that will, for me, be my understanding of engagement. (BY1.056)

- Relationships

> Relationship between teacher and student, so I think that for me, I can't expect a student to respect me if I don't respect them… the relationship building I'm talking about is the relationship between teacher and student is a two way street. That if I open to them as an individual and a person, then that is showing the respect for them, which hopefully will build their self esteem that they are worthwhile, those sorts of things. (RY1.044).

- Conceptions

> . . . my philosophy of it is that it is a conceptual belief that these kids have. They conceptualise in their minds that they are not good at school or school sucks and they hate school or whatever, so they build this conception up and this conception is backed by imagination and imagination is a very powerful tool. (BY1.010)

Under scrutiny, some pools of meaning combined because they had more common than different criteria. For example, on closer examination, data from Relationships like the passage above were often referring to how relationships build self-esteem. These data were transferred to the pool relating to motivation and confidence. Other data from this pool were relating to the enjoyment students get from positive interactions with peers and teachers; in this case, relationships are seen as making time in the classroom more fun.   These data were transferred to the interest and enjoyment pool.

Conceptions also lacked support from the data. Data coded to this node was initially organised into the sub-pools Conceptions of Self, Conceptions of School and Conceptions of Future. While Conceptions of School and Conceptions of Future data

seemed closely matched, data in Conceptions of Self were similar to data in the pool relating to motivation and confidence as these data relate to student self-confidence and self-image. After further examination, data coded to Conceptions of School and Conceptions of Future did not appear focused on student conceptions, but student purposes. This pool was renamed *Seeing purpose* as participants considered student engagement to be purposeful learning to achieve goals.

After pools had stabilised, preliminary categories of description were created from the pools of meaning. These categories were considered to represent the *what* aspect, understood to be the meaning participants give to the phenomenon (Pramling, 1983). Next, it was necessary to identify the *how* aspect in relationship to the already established *what* aspect. Data coded to each category was re-examined to establish the conceptualised acts undertaken to facilitate that conceptual meaning (Pramling, 1983). For example, the first two utterances discussed in relation to student interest being related to engagement on page 150 suggest elements of the *how* aspect as well as the *what* aspect (Marton & Booth, 1997; McKenzie, 2003; Pramling, 1983). Here, Emily begins by saying engagement is students "interested in it" (*what*) and then explains that to cater for this she must be "looking at what they wanted to do" (*how*). Betty states that without interest "they're not going to engage at all" (*what*), and explains that making lessons interesting is part of the teacher's job (*how*). Like the process already used to establish the *what* aspect, data pools were established for the *how* aspects and each aspect was analysed separately. Some utterances were place in data pools for both *what* and *how* aspects.

When finalising the categories, criteria based on critical differences were established to create the boundaries of each data pool. For example, within the sub-pool relating to the *what* aspect where student engagement is being interested in and enjoying participating in what happens at school (*Enjoying*), several assumptions differentiated this conception from others:

- Engagement is student interest and enjoyment in what they are doing at school.

- Learning is assumed to occur when students are interested and having fun.

- Students are seen as having personal interests outside of school that can be utilised in the classroom.

- Interest is often demonstrated by willing participation in classroom activities.

These assumptions formed the criteria separating this category from others. For example, a focus on interest and enjoyment divided it from the *what* aspect of the pool where student engagement is participating in classroom activities and following school rules, as in that pool, pupil interest and enjoyment are not considered.

The following categories of description were formed, suggesting student engagement is:

- participating in classroom activities and following school rules

- being interested in and enjoying participation in what happens at school

- being motivated and confident in participation in what happens at school

- being involved by thinking

- purposefully learning to reach life goals

- owning and valuing learning.

These categories were named *Behaving*, *Enjoying*, *Being motivated*, *Thinking*, *Seeing purpose*, and *Owning*. In this particular study, three *how* aspect categories were found: *Delivering*, *Modifying,* and *Collaborating*.

The process of analysis described above separates the phenomenon's meanings from the conceptualised acts that facilitate those meanings. According to the analytical framework described in Chapter 3, the *what* aspect also possesses a direct object while the *how* aspect is composed of a conceptualised act and the indirection object or intentions underpinning the act (Marton & Booth, 1997; McKenzie, 2003). As the phenomenon under study was student engagement in learning, the direct object for all conceptions is considered to be student engagement as all teachers indicate engaging students as their primary goal. Even though it appears in later categories that teachers become engaged as well, teacher engagement is considered a by-product, not an aim. As the direct object remained consistent throughout categories, further analysis of the *what* aspect was not needed, but the *how* aspect still had to be divided into its act and indirect object.

To establish the act and indirect object, data within each *how* aspect pool of meaning were divided into two sub-pools. In one pool were statements relating to actual acts teachers had done or could conceptualise doing to facilitate student engagement. These passages were primarily narrative. For example, within the second *how* aspect category (Modifying) teachers talked about changes they made to curriculum that led to student engagement. Typical of these was Emily's description of how she modified her lessons to incorporate a topic students found interesting:

> . . . we were looking at what makes up an editorial. . . . I presented my lesson and it was about something to do with politics, and the students were saying, "Oh yes, ok," and they made some good judgments on that. But they suggested that we should talk about something happening in the Olympics, which was the rowing debacle, which meant that it was not the lesson that I had planned. So I engaged them in some discussion about that because that was what they were talking about, and I said tomorrow we will look at that and so we continued with my lesson after some discussion. . . . and then the following lesson which I had planned to do something else in, I then used . . . a number of news reports . . . based on that topic which was, to me, totally engaging them because it was there

where their minds were at. They had very passionate views on it and so that really got the whole class thinking and discussing. . . . (E1.002)

Here, Emily talked about how she modified the curriculum to include discussions of the "rowing debacle"; this was "not the lesson she had planned." For Emily, this act appeared to increase student engagement. She observed that her students expressed "passionate views" and were "thinking and discussing." Statements like these were put into pools of meaning relating to the act of the *how* aspect.

In the pool relating to the indirect object were teacher statements about their intentions underpinning these acts. These statements were primarily reflective and analytical. For example, discussing the modification outlined in the previous passage (E1.002), Emily reflected:

> Well, I think it was acknowledging to the students that yes it was important, like picking up on the fact that this was where their thoughts were. I was trying to channel them in one direction and they had ideas about that . . . but knowing it is what they were kind of emotionally attached to, so being flexible enough to change it and recognising that that is where they should be heading, so it kind of directed my planning then . . . flexibility . . . I think one of the important things is to be able to change if your activity is not working really well and you have to be flexible in that . . . so if you know your group of students, a bit about their background, you can kind of work towards getting them switched on with that. (E1.004)

In her reflection, she outlined many of her intentions. When modifying, she tries to identify "where their thoughts" are using knowledge about her "group of students." She intends to get them "switched on" by "being flexible" and allowing them to work with something they are "emotionally attached to."

Once all data had been classified into *what* and *how* pools and criteria for each pool had been established, meanings were abstracted from the pools. For example, within the second *how* aspect category (Modifying), the act is modifying activities to cater for

student interest, motivation, and ability. The indirect object or intent is to make activities achievable and interesting so students will participate and experience success.

This section describes how theories of intentionality were used to guide the analysis used to create categories of description. The theoretical framework proposed in Chapter 3 also requires an additional layer of analysis to identify the structure of awareness present in each conception, allowing researchers to identify the internal and external horizons of conceptions. This process will be outlined in the following section.

4.5 Process of analysis: Establishing the internal and external horizons

Once categories of description were established, theoretical principles of awareness from Chapter 3 were applied to the data (Marton & Booth, 1997). Few descriptions of this process exist in literature (Cope, 2002b). It appears that the procedure used is similar to that utilised to create categories of description. As the referential aspect (meaning) has already been established at this point in analysis, discerning the structural aspect is the focus of these steps. While these further analytical processes are not taken by all phenomenographic researchers, they can improve the validity and reliability of phenomenographic work by increasing the depth of data analysis (Cope, 2002b).

Previous research indicates that *what* and *how* aspects each have their own internal and external horizons (Marton et al., 1993). To help identify the internal horizon, Cope (2002b) suggests using the broad questions, "What dimension(s) of variation must be discerned if the quote is to make sense?" (p.6). The question, "How must the phenomenon be delimited from its context if this quote is to make sense?" (Cope, 2002b, p.6), can be used to establish the external horizon. Cope (2000b) tailors these

questions to fit his phenomenon, information systems, using the questions, "How must an IS be delimited from its context?" and "What aspects of an IS are implied and what is the nature of the relationship between these aspects?" (p.6).

4.5.1 Establishing the internal horizon

To establish the internal horizon of each category, the parts of each conception and their relationships must be discerned from the data. The focus of analysis is on identifying participants' awareness of things they consider integral to the phenomenon's meaning. This section will only illustrate the process used to generate the internal horizon of the *what* aspect category Enjoying, as the same process was applied to the *what* and *how* aspects of all categories. Like Cope (2002b), tailored questions were used to guide the analysis of the interview data. To establish the internal horizon the question, "What aspects of the meaning of student engagement are implied in the data and what is the nature of the relationships between these aspects?" was used to guide analysis.

The first step of the process was to return to the original transcripts, focusing on passages of data surrounding utterances used to establish the *what* aspect. Aspects that appeared important to this understanding were coded to nodes generated from the data using NVivo. NVivo was used as over thirty nodes were needed to account for all the "parts" discerned from the data, making it difficult to code by hand. The data coded to each node were then analysed and associated with a category, becoming pools of meaning once linked to a category.

Data associated with the *what* aspect of category Enjoying consistently referred to students connecting hobbies and interests to the classroom, coded under *Hobbies*. For example, John explained:

> . . . we did a magazine unit last year and the students had total freedom about what type of magazine they could create, nearly total freedom. And he [the student] did skateboarding. He was engaged for that and then disengaged when we [finished]. (JN1.053)

This passage and later commentary suggests that when this student was able to connect his hobby of skateboarding to his schoolwork, he was engaged. This passage was interpreted to mean that interest and enjoyment can be generated when students connect out of school interests like skateboarding to the classroom. This conceptual part was placed in the internal horizon.

Each pool of meaning was compared and contrasted with categories of description and the other pools of meaning related to the internal horizon. The pools of meaning were first compared with the category they were linked with to make sure that the "part" had clear relationships with the category and that both were drawn from similar data. All categories had multiple pools attached to them.

At times, pools of meaning initially thought to be associated with one category were later correlated to another after pools were compared and contrasted with categories. For example, the pool *Home values* was initially associated with the category Owning because values are common to both. However, after examining the data, it became apparent that participants were primarily discussing how home values related to motivation instead. Having a family that valued education is considered to increase students' confidence and motivation to achieve. This passage from George is representative of the data categorised under Home values:

> . . . students are disengaged because they feel as though they can't succeed and that there's no point in trying if they can't succeed. But also I feel as though it's learned behaviour, possibly from the home environment . . . in that some students probably, this is obviously an assumption, they are not encouraged to succeed from a home environment and maybe school isn't exactly such a

> priority and isn't seen in as an important aspect of life as some other students would get from their home life. So I think that the variation in the home life and the emphasis that that home life puts on school and puts on learning can drastically effect how engaged students can be. (G1.030- G1.034)

In this utterance, George explained how he assumes that support from home helps students become more successful, motivating them to achieve. Unlike data in Owning, which indicate that students create their own values, here students are seen as aligned with and motivated by their family's values.

Like the process used to establish categories of description, constant comparison and contrast of pools led to a stabilisation of the entire system. The pools linked to each aspect of every category were then reduced and abstracted to form internal horizons. Once these were established, the contexts of the categories could be examined.

4.5.2 Establishing the external horizon

The external horizon creates a context for the phenomenon, establishing the parameters in which the phenomenon exists. According to Marton and Booth's (1997) interpretation of awareness theory, these contexts can be concrete or abstract. The question used to guide analysis relating to the external horizon was, "How is student engagement delimited from its context?" To delimit the phenomenon from its context, the same analytical process was repeated a third time. Passages surrounding data used to create the referential aspect were revisited and grouped into data pools about context.

However, establishing the external horizon proved challenging as student engagement's context is both concrete and abstract. Initially, directed by Marton and Booth's (1997) example of the deer cited in Chapter 3, the external horizon was conceptualised primarily as a physical setting. Context was discerned by identifying the physical

environments where teachers saw student engagement as occurring. For example, within *Behaving* the physical context is described as a traditional classroom setting.

However, the external horizon of the *how* aspect is far more abstract, especially for the indirect object. Teachers talked broadly about their school contexts, discussing the many obstacles to student engagement that hinder their ability to fulfil their intents. For example, within the category Modifying, Jack saw students as being embedded in a complex social network that can affect their engagement, explaining:

> . . . it's the social aspects of everything that they do outside of the classroom that they bring to the classroom. It could be the nature of their family. It could be the nature of their friends. . . . And I'm not going to be able to change them. I'd love to. I'm not going to be able to change them in 1, 2, 3, even 10 weeks when you consider that they've been like this for anywhere from 12 to 17, 16 years. . . . we get them and we can try to change them, but like I was trying to say before, it's all the other influences that make them behave and do the things that they do. (JK1.077)

Jack suggested that the environment students come from directly shapes the context of engagement. These influences make students "do the things they do," even though teachers "try to change them." The "nature of their family" and the "nature of their friends" form the environment where teacher intents towards "changing them" are operating, creating a context for the indirect object of the category Modifying.

After examining data from other research using this framework and examining passages like the one above (JK1.077), it seemed simplistic to define context as a physical location. For example, in Cope's (2000) model, the role of the information user changes across categories. Initially, the information user was not a part of the information system, existing in the external horizon as part of the context, but in later categories was fully integrated into the phenomenon, moving into the internal horizon.

Data suggested that the role of teachers and some students also changes in different categories. For example, in Behaving, the first *what* aspect category, some students are excluded from engagement because of personal qualities. For example, Betty talked about how some boys were unable to engage because of the stage of their brain development:

> . . . research has shown that the frontal lobe, which is the area in a person's brain in adolescent years that is actually developing, right. It's developing at a very slow rate. There's actually sometimes that it is actually shut down. In the frontal lobe it shows us that we control impulse and reasoning and planning. Girls tend to mature earlier than boys . . . (BT1.018)

As student engagement was conceptualised here as participation and adherence to rules, some boys are seen as excluded from engagement when their frontal lobe is "shut down."

Betty continued, explaining that the frontal lobes:

> . . . tend to develop between the ages of 18 and 23. There's been quite a lot of research that indicates that boys' frontal lobe [development] . . . continues on till the age of 23. And if you even go out to a nightclub or out into the public and you see boys that age, there's a higher rate in deaths in cars, which is an indication that that research is true. You know boys tend to do that silly behaviour even still after they leave school. They don't tend to settle down. (BT1.022)

While she articulated that frontal lobe development did not affect the engagement of all boys, it precluded some from engaging as they were unable to "settle down," "control impulses," reason, and plan. Students like these boys are placed within the external horizon. However, as categories ascend, teachers become aware that all students can engage and no groups of students are found within the external horizon.

While there was substantial movement as different dimensions of context were discerned from the data, this system also stabilised to form the external horizon. The context for the *what* aspect consists primarily of the physical spaces where engagement

is seen as taking place, like those described by Marton and Booth (1997). The external horizon for the act primarily defines the boundary of the act (whole-class context, individual student context, etc.), while the external horizon for the indirect object includes teacher perceptions of the environments where their intents are enacted. Once the external horizon is established, the final outcome space can be ordered.

4.6 Process of analysis: Ordering the outcome space

The final step in phenomenographic analysis is the creation of the outcome space. This section will review literature on how the outcome space is ordered before showing how the process was completed using data from this study.

4.6.1 Ordering the outcome space: Procedure

The outcome space is considered to be a "space of variation":

> . . . representing all possible ways of experiencing the phenomenon in question, at this particular point in time, for the population represented by the sample group. (Åkerlind, 2002, p. 2)

It is ". . . the complex of categories of description comprising distinct groupings of aspects of the phenomenon and the relationships between then" (Marton & Booth, 1997, p. 125). These relationships are primarily defined by similarities and differences (Marton & Saljo, 1997) and can be ordered in relation to a given criteria or by complexity (Marton, 1994b). While ". . . none of the conceptions [participants have articulated] are wrong . . . some of the categories are indeed more complex and powerful than the others" (Bruce, 2004, p. 86). Categories that are more powerful and complex are placed higher in a hierarchical structured outcome space. When finished, the outcome space is considered to be synonymous with the phenomenon as all of its potential meanings are represented (Marton, 2000).

While the organisation of categories must reflect the relationships between them, how these relationships should be structured is ". . . one of the least understood aspects of phenomenography" (Åkerlind, 2005, p. 322). This lack of understanding may be due to the way the process is discussed in literature. For example, Marton and Saljo (1997) describe the process as follows:

> When scrutinizing "the pool of meanings" at this particular level, a pattern of a hierarchy of similarities and differences in meaning may ultimately emerge. We do not believe there is any uniform technique which would allow other researchers to go from "the pool of meanings" to the emerging pattern of a hierarchy of similarities and differences. It is essentially a discovery procedure which can be justified in terms of results, but not in terms of any specific method. In each study the discovery process will inevitably be different, depending on the specific purpose and context of the research. Yet, whatever specific method is adopted, the crucial point is that there is . . . "rigorous qualitative analysis" in identifying and describing the categories of description, and in examining the relationships between them. (pp. 42-43)

This description is very broad. They say a pattern "may" emerge during a "discovery procedure" not tied to a specific method. While this description is designed to allow researchers flexibility, it provides little guidance.

The final structure for phenomenographic results is not agreed on. Most phenomenographers put forward that categories should be ordered hierarchically. For example, Booth (1997) states that the outcome space is complete when:

> . . . an internal logical relationship, a hierarchy, is seen to exist between them [the categories of description], which can in turn be related to other categories of description. (p. 138)

Åkerlind (2004) puts forward that researchers should expect hierarchically ordered categories because the non-dualist ontology:

> . . . leads to the expectation that different ways of experiencing a phenomenon would typically be internally related - related through the phenomenon being experienced and through the inherently related nature of human experience. Consequently, one would expect that the qualitatively different ways of understanding a phenomenon constituted during a phenomenographic analysis would typically represent more or less complete experiences of the phenomenon, rather than different and unrelated experiences. Thus, the set of conceptual

categories that emerges from phenomenographic analysis may commonly be ordered along a hierarchy of inclusiveness. (p. 366)

As categories are considered "internally related," earlier categories are assumed to be "less complete" than later ones.

Those using phenomenographic understandings of awareness also suggest hierarchical ordering is necessary as higher categories represent a more complete awareness of important features. Cope (2000) puts forward that:

A different way of experiencing the phenomenon involves more or less aspects of the phenomenon simultaneously present in thematic awareness and/or related in different ways. More complex ways of experiencing a phenomenon, that is those higher in a hierarchy, involve either focusing simultaneously on more aspects of the phenomenon and/or recognising more and better defined relationships between the aspects. A structure of awareness which describes a way of experiencing mathematics as numbers, rules and formulae contains a theme made up only of numbers, rules and formulae. The structure of awareness which describes a way of experiencing mathematics as a means of solving complex problems contains a theme made up of numbers, rules and formulae and interpretive processes for solving complex problems. The latter structure of awareness of mathematics is logically more complex and inclusive of a structure of awareness with a theme consisting only of numbers, rules and formulae. (p. 28)

While an inclusive hierarchy is one structure used to order the outcome space, hierarchies do not need to be linear; ". . . branching structures or hierarchies are also a possibility" (Åkerlind, 2005, p. 329).

However, some question if a hierarchical structure is always the best way to present data. Patrick (2000) argues that it is prejudicial to assume that a hierarchy exists before looking at responses. Kember (1997), who frequently reviews phenomenographic work, states that ". . . it seems unlikely that all scenarios are best understood by the reader if portrayed as a list of categories in a hierarchical order" (p 263), instead suggesting that other structures, like continuums, may be more appropriate in some situations as they

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reflect a more gradual shift in perspective and do not assume that lower categories are subsumed by higher ones.

The creation of the outcome space relies on a balance between allowing the structure to emerge from the data and relying on the professional judgments of the researcher (Walsh, 2000). Bracketing no longer occurs during this step as creating an outcome space:

> . . . allows the phenomenographic researcher not only to list people's conceptions in the form of categories of description but also the researcher's interpretation of the relationship between them . . . (Yu, 2003, p. 5)

The researcher is allowed to compare the study's findings with other data to create a "logical" model of how the categories relate to each other.

4.6.2 Ordering the outcome space: An example of process

In this study, a hierarchical structure was used because it fit the data. The order of categories was established through two processes. First, categories were ordered based on the complexity of the participant awareness of the phenomenon. Participant data used to illustrate higher categories showed a deeper awareness of the complexity of student engagement. For example, in the final two categories of the *what* aspect (Seeing purpose and Owning), teachers acknowledge that because of diverse student motives and purposes, teachers must collaborate with students to create a curriculum meaningful to them for engagement to occur. This understanding is based on awareness of many aspects in lower categories, like student interest, motivation, and cognition. Second, these categories were related to the hierarchical three-dimensional model developed from academic literature in Chapter 2.

These two processes caused movement in the ordering of categories. For example, while Being motivated was placed above Thinking in the preliminary ordering of the *what* aspect categories, these two were switched for several reasons. Data in Being motivated did not explicitly refer to cognitive engagement, focusing primarily on psychological and behavioural aspects. Data in the Thinking category prioritised cognitive aspects of engagement over behavioural and psychological ones, congruent with the model put forward in Chapter 2. Also, physical contexts of engagement become more inclusive. While in Being motivated teachers are aware that engagement takes place in school settings, Thinking includes awareness of sites outside of school. The final order was determined by comparing each category to research literature and the other categories; higher categories subsumed or critiqued aspects of lower categories and showed a wider, more complex understanding of student engagement.

4.7 Summary of the analytical process

The previous sections explain the process of phenomenographic analysis undertaken in this study. These sections explain how to create of categories of description, establish the internal and external horizons, and order the outcome space. An explication of this process is necessary as many aspects of the research process are loosely described in the literature and few studies sufficiently articulate the process of analysis (Ashworth & Lucas, 1998).

The analytical process is guided by phenomenographic understandings of intentionality and awareness discussed in Chapter 3. An analytical framework based on intentionality allows conceptions to be divided into *what* and *how* aspects and their corresponding act, direct object, and indirect object. Understandings of awareness are used to establish the

internal and external horizons. The chapter concludes with a discussion of how reliability and validity are established within this study.

4.8 Establishing reliability and validity in phenomenographic studies

Researchers must provide evidence that results of empirical research are *valid* and *reliable*. However:

> . . . the validity and reliability of phenomenographic studies is a contentious issue and one that is argued theoretically in the phenomenographic literature with no clear resolution. (Cope, 2002b, p. 1)

Many published studies ignore the issue entirely. Establishing validity and reliability can be difficult as many commonly used indicators are grounded in positivistic criteria rather than the intersubjective ones appropriate for phenomenography (Åkerlind, 2002). This section discusses the steps taken to establish internal and external validity and reliability.

4.8.1 Reliability

Reliability can be established both internally and externally (Lankshear & Knobel, 2004). A study's internal reliability is based on the collection of data, while its external reliability is based on the extent to which it is replicable. To achieve internal reliability, data collection must be done uniformly to minimise variation caused by the researcher (Lankshear & Knobel, 2004). In this study, one researcher conducted all interviews using identical core questions. As per phenomenographic protocol, follow-up questions were based on the participants' previous responses. To establish external reliability, a researcher must show how their results can be replicated if the same methods are used to investigate a similar population (Lankshear & Knobel, 2004). While internal reliability is relevant, external reliability measures like replicability are only applicable in certain ways.

Marton (1986) suggests it is inappropriate to replicate phenomenographic results as they

are obtained through a process of discovery:

> Compare this [replication] with a study of previously unknown flora and fauna
> on a remote island. In such a study, existing categories (species) are of limited
> usefulness. The botanist finds new species and, therefore, must construct new
> categories. Only then can the botanist determine how these new categories fit
> into the whole system of species classification. In this sense, the work of our
> fictitious botanist and the work of the phenomenographer are related. Just as the
> botanist finds and classifies previously undiscovered species of plants, the
> phenomenographer must discover and classify previously unspecified ways in
> which people think about certain aspects of reality. (p. 35)

Marton (1986) argues that it is unreasonable to think that two independent botanists

would give identical classifications to a new plant; phenomenographic results should

not be assumed replicable either. The researcher must try to comprehend how

participants understand the phenomena, even if understandings fall outside conventional

theories. Since it is a process of discovery, other researchers may not classify the "new"

ideas in the same way.

However, for phenomenographic results to be useful to the research community there

must be some level of replicability, even though identical replication is improbable. The

range of variation found in phenomenographic results should be evident to other

researchers through data used to illustrate categories. Analytical process must be clearly

explained. For example, the steps undertaken in this study have been explicated in this

chapter and categories are illustrated with data in Chapters 5 and 6. Researchers using

other methods should find a similar range of conceptions within a comparable sample

population. Referring back to Marton's (1986) example of the botanist, eventually the

scientific community does reach agreement on where a plant fits into the botanical

kingdom. While two botanists may give the plant different common names, if detailed

descriptions are given, each will be able to identify their plant's characteristics like colour, size, and habitat in the work of the other botanist. In this way, phenomenographic results are also replicable.

For example, some would consider results of phenomenographic studies on conceptions of teaching (Dall'Alba, 1991; Martin & Balla, 1991; Trigwell & Prosser, 1996) to have been "replicated." Conceptions similar to those found in phenomenographic studies have been identified in literature reviews (Kember, 1997, 1998; Samuelowicz & Bain, 2001); qualitative studies using grounded theory (Samuelowicz & Bain, 2001); and quantitative studies based on surveys and questionnaires (Gow & Kember, 1993; Kember & Gow, 1994). While each study establishes a different numbers of categories, all begin with categories describing teaching as content-centred and teacher-oriented and finish with categories describing teaching as student-centred and learning-orientated (Kember, 1997; Samuelowicz & Bain, 2001). This congruence suggests that categories obtained through phenomenographic research are identifiable by other researchers and similar to those obtained through other methods.

However, replication cannot be pursued using a phenomenographic design. Replicating results using phenomenography implies use of a process of construct, which would mean:

> . . . that the researcher follows certain procedures, observes certain principles, and has a sense of control over the data; and that where the data conflicts with the expert's or the researcher's preferred framework, the framework, rather than the data, will take precedence in developing a description. (Walsh, 2000, p. 21)

To replicate results, other methods must be used.

Some phenomenographic studies try to establish external reliability by using interjudge reliability (Johansson, 1996). During this process, a researcher presents a set of categories and a set of data. Other researchers then code the data to these categories and a high percentage of identical classifications is thought to establish "reliability."

Sandberg (1997) outlines four major flaws with this process. The first two question a research team's ability to accurately match data to categories. First, many participant statements will fit more than one category, making it easy to match data to a less complex category than the original researcher did. Second, conceptions are often fragmented, meaning data from multiple transcripts may be needed to show one conception. Others may not make the same links as the primary researcher without having a strong sense of the data set or first seeing the analysis already completed.

The final two flaws deal with methodological and theoretical inconsistencies implied in the process. Interjudge reliability draws attention away from the procedures through which the data are obtained and analysed. This process does not add reliability if the data are superficial or obtained through leading questions. If categories are easy to identify, other researchers may classify the data in the same way, despite earlier manipulation of data. Interjudge reliability is also theoretically inconsistent with phenomenography as it assumes an objectivistic epistemology by asking the researcher to allow others to assess his level of "subjectivity." This process is based on the positivistic assumption that knowledge exists outside of the human mind. From a phenomenographic perspective, ". . . human knowledge is intentionally constituted through the subjects' conceptions of their reality" (Sandberg, 1997, p. 207). There is no "true" categorisation which other researchers should identify as categories are

intentionally constituted as the researcher interprets the data. These issues prevent interjudge reliability from being used in this study.

4.8.2 Validity

Internal and external validity are also frequently used to judge results. While internal validity measures are appropriate for phenomenographic research, generalisability, the criteria for external validity, has limited application.

To obtain internal validity within a thesis, the researcher must:

> . . . employ a sound and rigorous research design and methodology, using data collection and analysis techniques expertly to obtain accurate findings, and advancing correct interpretations of the study results. (Lankshear & Knobel, 2004, p. 361)

While phenomenographic studies aim for fruitful rather than "true" interpretations, they do require sound research designs and expert use of data collection and analytical techniques. As Åkerlind (2002) explains:

> . . . there is no longer a search for the "right" interpretation, but for an interpretation that is defensible, in a context where the researcher is selecting from a range of possible interpretations. (p. 13)

Instead of true interpretations, phenomenographers search for results that can be substantiated by data.

Cope (2002a) explains that "the validity of the phenomenographic study is claimed through the full and open description of the method and results" (p. 71). To obtain internal validity, the researcher must follow these steps:

1. Information about the researcher's background should be given to allow the reader to probe for potential bias or subjectivity.

2. The characteristics of the participants should be clearly stated, providing a background for any attempt at applying the results in other contexts.

3. The design of interview questions should be justified.

4. The steps taken to collect unbiased data should be included.

5. Attempts to approach data analysis with an open mind rather than imposing an existing structure should be acknowledged.

6. The data analysis method should be described.

7. The researcher should account for the process used to control and check interpretations made throughout the analysis process.

8. The results should be presented in a way which permits informed scrutiny; categories of description should be fully described and adequately illustrated with quotes. (Cope, 2002b, p. 2)

To fulfil these requirements, the research process has been explained and illustrated during this chapter, fulfilling steps two through seven. While detailed information on the primary researchers' background is not included, the acknowledgements at the front of the thesis provide details of the researcher's occupation and professional networks. Chapters 5 and 6 fulfil step eight as they present results "illustrated with quotes." Using awareness and intentionality as frameworks during data analysis also provide visible structure for analysis.

The main judge of external validity is generalisability. While some argue that phenomenographic results can be generalisable, the extent to which this can be done is limited. Åkerlind (2002) suggests that:

> . . . the results of a phenomenographic study should be generalisable to other groups of people from a similar population, in that the range of ways of experiencing constituted in relation to a particular group should be common to other groups with a similar spread of characteristics (and presumably ways of experiencing). (p. 12)

Phenomenographic samples are not selected to be representative, but instead are as heterogeneous as possible to maximise variation. Conceptions identified may not be prevalent within a community. Reporting demographic information about the sample

will help readers see the variation present and examine how the population under study compares with those researched in other projects. While comparisons cannot be made quantitatively, the range of variation should be similar within a like population.

To allow readers to judge similarities between the research population in this study and others, a range of demographic information has been reported including age, gender, and years of teaching experience. The location of the study has also been disclosed as its regional position may also influence participant understandings of engagement.

4.9 Chapter summary

This chapter describes the research design and explicates the process of analysis used to produce the results presented in Chapters 5 and 6 and discussed in Chapter 7. It explains how the research design was created and implemented, drawing on theoretical principles discussed in Chapter 3. Next, it describes the analytical process undertaken in this study and illustrates it using participant data. This process includes the creation of categories of description, the discernment of the internal and external horizons, and the ordering of the outcome space. The chapter concludes by discussing measures of reliability and validity suitable for phenomenographic research. Within this study, internal measures of reliability and validity are primarily used because external measures have limited application within phenomenographic research.

The next two chapters present the outcome space of this study. Chapter 5 focuses on the *what* aspect of each category and its corresponding internal and external horizons, illustrating each with data and providing analysis of important similarities and differences.

Chapter 5
The *what* aspect: Teacher conceptions of student engagement

5.1 Introduction

This chapter presents and analyses data gathered using the procedures outlined in Chapter 4. According to phenomenographic understandings of intentionality, conceptions are composed of two intertwined referential parts, one containing the meaning of the phenomenon (*what*) and the other the conceptualised acts done to facilitate that meaning (*how*) (Pramling, 1983). According to this theoretical framework, each conception found in this study has a *what* aspect - what teachers conceptualise student engagement to be, and a *how* aspect - how teachers conceptualise facilitating student engagement. This chapter illustrates and analyses the *what* aspect of teacher conceptions of student engagement.

According to the framework introduced by Marton and Booth (1997), the *what* aspect has a direct object. Drawing on work by McKenzie (2003), this direct object refers to what is to be engaged. In this study, the direct object remains constant. Teachers suggest students are to be engaged in all categories, making student engagement the direct object. This direct object remains fixed throughout the study because student engagement is the focus of the interview questions. Although in Category 6 (Owning), teacher engagement is evident as well, this engagement is not purposeful; it comes as a result of student engagement. For example, Diane explained, ". . . I just found that because they were so keen and so enthusiastic, I wanted to give them free reign" (D1.016). Teacher engagement at this level comes because students are "keen and

enthusiastic," not because teachers are purposely trying to engage themselves in their work. While the direct object, student engagement, remains fixed throughout the study, how it is understood changes. These differences will be analysed within the *what* aspect.

Theoretical understandings of awareness also underpin the analysis of these data. As explained in Chapter 3, the referential aspects of both the *what* and *how* aspects also have a structural aspect (Marton & Booth, 1997; Marton et al., 1993). The structural aspect can be divided into the internal and external horizons. The internal horizon includes the parts of the conception and their relationships to each other and to the referential aspect. The external horizon provides the context in which the conception sits. Context is considered to be the range of possible environments where the phenomenon is present. The context must include things existing in the environment that are not considered part of the phenomenon but that can affect it in some way. In the case of the *what* aspect, the internal horizon includes all of the parts related to the teachers' conceptions of what student engagement is as well as the relationships these parts have with one another. The external horizon creates a physical context for engagement, and is used to identify locations where student engagement is possible. A summary of the six categories can be found in Table 5.1 and Figure 3.3 in section 3.10 provides a diagram showing how all conceptual parts are related together.

The rest of this chapter will explore each category's *what* aspect and its corresponding internal and external horizon. Each will be illustrated with participant data; the important features of each category will be summarised at the end of each section.

Table 5.1 - The outcome space for the *what* aspect

What Aspect	Referential Aspect	Structural Aspect	
		Internal Horizon	**External Horizon**
Category 1 Behaving	Engagement is participating in classroom activities and following school rules.	Students are content and compliant. Participation occurs because of institutional characteristics and students' physical attributes.	Students excluded from engagement exist in the context. Engagement occurs in traditional classrooms.
Category 2 Enjoying	Engagement is being interested in and enjoying participation in what happens at school.	Students focus their schoolwork on out of school interests and have fun through playing games and using technology.	Engagement occurs in classrooms, other school facilities, and activities.
Category 3 Being motivated	Engagement is being motivated and confident in participation in what happens at school.	Students seek motivation and validation from extrinsic rewards like academic marks and affirmation from others.	Engagement occurs in supportive environments including classrooms, other school facilities, and activities.
Category 4 Thinking	Engagement is being involved by thinking.	Students are academically challenged, working at their cognitive level of development, and incorporating prior knowledge. Student thinking may be stimulated by the teacher.	Engagement occurs in classrooms, other school facilities, and activities and other learning environments outside of school.
Category 5 Seeing purpose	Engagement is purposefully learning to reach life goals.	Students establish goals, make real world connections, and are involved in practical learning.	Engagement occurs in subjects and sites relevant to goals including classrooms, workplaces, other school facilities, and activities.
Category 6 Owning	Engagement is owning and valuing learning.	Students are intrinsically motivated, independent, and take control of their learning by going beyond tasks or setting their own.	All settings, formal and informal, can provide context.

5.2 Category 1 of the *what* aspect: Behaving

In this category, engagement is student participation in classroom activities and adherence to school rules. Engaged students are portrayed as content with school. Because they are following the rules, engaged students are not disrupting the participation of others. Within this category, it is assumed that students learn when they partake in the teacher-set activities.

5.2.1 The referential aspect

In this category, participation is considered to be the strongest indicator of engagement. For example, Emily described an engaged student as:

> Someone who comes willing to participate in what you've got planned or in the education process, in the classroom process. Someone who is participating in discussions, putting forward ideas, taking the notes that you need to take, working within the time frame . . . to get the certain amount of work or assessment or whatever done in that prescribed time. (E1.051)

Here key elements of this type of engagement are outlined: the students "participate" in "what you've got planned," "work within the time frame," and "get the certain amount of work done." In this category, teachers control the classroom; teachers "plan" activities and students do this "work" in the "time frame" established.

Engagement also means that students are adhering to the rules. For example, Jenny described engaged students as:

> . . . listening and they are answering questions. They are behaving properly. They are not tuned out; they are sort of doing what you ask them to do, all the usual things you like to see in a student. (JE1.100)

Jenny also focused on participation and behaviour when describing engagement; engaged students are "doing what you ask" and are "behaving properly." In this category, teachers identify who is and is not engaged. Criteria for engagement are teacher-set; participants look for the things they "like to see in a student."

Teachers consider it important that students are "behaving properly" because student conduct is seen as affecting the participation of other students. For example, Betty told of a time when she had five disruptive boys "engaged" in making jewellery (referred to as "bling bling"). After describing previous difficulties she had had with this group of students, she explained:

> So in the next lesson that I had with them, they created their bling bling from cardboard, glitter, and pipe cleaners. Once I have those five boys engaged, I can then actually teach the rest of the class, but if those five boys aren't engaged, there is no learning happening in my lesson. So in that particular lesson where my boys . . . designed their bling bling and created it, I was actually able to do two sheets of work with the rest of the class, whereas normally I would have to chase those boys around the classroom, telling them not to throw things, sit down. So that's basically my story of engagement. . . . even though it's a tiny step and they only made, you know, jewellery, to me it was good because they sat down in a group. They didn't move. They didn't say anything nasty to any other people in the group and they created their jewellery and they were totally engaged in that activity the whole time. And then afterwards, I asked politely, "Guys, could you stay back and help me clean up?" and they did. Normally they wouldn't do that; they'd tell me to f-off and run away. (BT1.002)

In this anecdote, the boys were considered engaged when participating in the activity and following basic classroom norms (e.g., sitting down, not throwing things, not telling her to f-off). Having this group engaged led to increased participation from the rest of the class; the other students were able to "do two sheets of work" because she did not have to "chase those boys around the classroom." This story illustrates the connection teachers draw between engagement and behaviour; when the boys are engaged in the activity, they are no longer a management problem.

Disruptive students, like these boys, are a particular focus because teachers perceive that when these students are engaged, other students can work without interruption. In this example, while these boys are engaged, they are content. Betty explained, "I think they were just thinking, 'Yeah, we get to glue crap together and put glitter on it,'" instead of

being concerned that they were doing something different to the rest of the class (BT1.068). Teachers do not appear worried about whether activities that "engage" this type of students are educationally relevant as long as students meet behavioural outcomes.

Some teachers suggest that school administrations encourage teachers to view student engagement as participation and adherence to rules. For example, Joseph stated:

> . . . if I was the Principal and I was walking along and I suddenly said, "These kids are engaged," then I think it would go to that fairly stereotypical concept of they are all in the room. They are all doing something or they are all moving around. They are cooperative with each other . . . they [administrators] would still expect to see rows of bums on seats, rows of kids all facing forward, that sort of thing. (JS1.054)

Joseph observed that administrators look for "bums on seats" with students "facing forward" within classrooms. As long as students are "cooperative" and "doing something," many teachers and administrators would consider them to be engaged. This remark highlights teacher perceptions of the environment in which they teach, discussed further in the indirect object of the *how* aspect in the subsequent chapter. Many seem to view this conception of engagement as institutionally sanctioned and appear to feel that engaging students in this way is part of their role as the teacher.

Within this category, learning is assumed to occur as a result of participation. For example, Beth explained:

> Engagement really means that students are actively learning. That might be on an individual basis or it might be via group process or it might be via a discussion process. . . . But as long as positive signs of learning can be sort of made out in that situation, I think that is what engagement really means. It means the student is actually involved and is participating to a high degree so that something can be gained from that experience. . . . in active learning I would say that there is actually direct participation on part of that student. . . . The person who is sitting back in the corner and is partly asleep or feeling pretty bored is obviously not engaged. So there are definite signs that the student is

engaged in that you have to see whether they are talking about the topic at hand rather than about what they are doing on the weekend and whatever and they are working through a process that has been outlined for them to do. (BH1.088, BH1.090)

Beth articulated that learning occurs when students are "talking about the topic at hand" and "participating to a high degree." Forms of the word "participation" are used three times in this section to underscore its necessity for "active learning"; this frequency suggests that participation is conceptually important (Sjostrom & Dahlgren, 2002). Here "active learning" appears to be synonymous with phrases like "direct participation," indicating it is more closely related to participation than to learning. Students "actively learning" by investigating and discussing are juxtaposed with students who are not learning because they are "partly asleep" or discussing weekend plans. Any involvement appears to count as participation. As Betty summed up, "so if you are engaged, you are learning. Subconsciously you are learning, whether you are aware of it or not" (BT1.176). This statement reflects the implicit nature of learning within this category.

5.2.2 The structural aspect: Internal horizon

Within this category, participants are aware of a range of institutional factors and student physical characteristics considered part of engagement. Institutional factors include timetabling, facilities, and resources. Individual student characteristics like gender, race, personal make-up, and upbringing are also considered to be related to student engagement. In this category, student characteristics are often discussed in an essentialised way. Beth's classification of *students* and *non-students* illustrates characteristics considered parts of engagement:

I do think that some students, there are some students who will work whether the work is interesting or not. They are just probably . . . they have been motivated in the past or they are just, for some reason or another, they are just students. I think there are students and there are non-students. And sometimes you just

can't do very much to make a non-student a student. It is in their make-up I believe, so that there are students who can sit down and can focus their attention well, probably in their make-up and the way they have been brought up in their younger years I think. . . . a lot of them are very, well, you could call them sort of sedate I suppose. They are co-operative. They don't argue with you; they don't. They just go with the flow and even if they don't like the work, they will do it without making a fuss. (BH 1.036, BH 1.038)

In the above passage, Beth suggested that a person is either a student or not a student and indicated that "you just can't do very much to make a non-student a student." Students' ability to engage is attributed to their upbringing and personal make-up, both of which the teacher has no influence over; these are seen as unchanging. Engaged students are considered compliant. They "go with the flow" and "do it without making a fuss," indicating a level of contentment.

Teachers are aware that content, compliant students are easier to manage, blaming factors external to the class when students misbehave. Race is seen as potentially limiting engagement, with Indigenous students identified as harder to engage than non-Indigenous peers. For example, Betty explained:

I think personally somehow we've bred Indigenous kids to think they're stupid or to think that they're learning difficulties. Nearly every Indigenous person I have in my class needs assistance. Maybe we've bred it like from an early age, like when they were in Grade 1. "Oh, they're Indigenous. They're going to need some help because they haven't had that 500 years training like the whites have." I don't know. (BT1.064)

Here she identified a negative stereotype about Indigenous students that she suggested students have internalised. This stereotype is seen as limiting their ability to successfully participate in school. Betty blamed education institutions for perpetuating this belief. She also mentioned later that this stereotype affects her behaviour as she "overcompensates" for and "mothers" Indigenous students (BT1.072).

Some participants also consider gender to be a part of engagement. Teachers perceive that female students are often better behaved and participate more than males, especially in literacy-based subjects, although some teach ". . . boys that cut that stereotype in half" (BT1.140). For example, Betty stated that "girls can basically sit there and listen for a longer time than boys can. Boys start to get jumpy and that's when the impulses start kicking in" (BT1.020). Boys are seen as often lacking the maturity necessary for academic success. The gender difference is attributed to puberty, learning styles, and social expectations.

Puberty is seen as affecting males more than females. Teachers in this category assume that brain development occurs faster in girls, evidenced by Betty's comment, "So yeah, girls' frontal lobes develop quicker than boys and that's why you have the maturity quicker in girls than in boys" (BT1.018). Betty blamed slower brain development for the male impulsivity that negatively affects boys' participation. She explained that:

> Because they [boys] don't have any forward planning, they can't see moving forward, they can't control what they are doing, their impulses. . . . they really don't know that they're doing anything wrong because their frontal lobes have not been developed. (BT1.020)

Betty used brain research on the development of the frontal lobe to explain why boys could not "control" what they are doing and often misbehave in class. This remark is typical of passages in this category. Teachers appear to use current brain research to essentialise student behaviour, justifying why it is outside of their responsibility and control.

Hormones are also seen as influencing boys' engagement. For example, John stated:

> An 11 year old, 12 year old boy will get 7 hits of testosterone every day I think. . . . so if . . . period 8, if you want them to engage with "Do this set now. Do that set. Show your working and write your answer. Thank you." And some teachers

will just be talking to the blackboard. Would you expect a kid who is getting pumped through with testosterone all the time to engage with that work? No way; it's not going to happen. (JN1.091)

John suggested that testosterone together with the time of day (period 8) and teaching strategies (doing set work) can prevent engagement completely. In this passage, John appears to accept that students who are getting "hits of testosterone" late in the school day will be unlikely to engage, especially when traditional teaching strategies are being employed.

Social expectations are also seen as contributing to student engagement. Representative of these passages, Jill said:

> I think boys have a certain perception that English is quite simply spelling and reading. And I don't think that's things that necessarily interest them and they're not really things that I think society as a whole pushes with boys. I'm just thinking back to my own experiences growing up. For me . . . I had books. For my brother, he had a little tool kit as a toy. (JL1.088- JL1.092)

Here she suggested that boys may struggle to engage because they do not see literacy based learning as "masculine." Others agree that academic success is not socially encouraged for boys, especially within certain groups:

> I don't know that boys see academic success as where boys should be at. Their image is important. They don't equate their masculine image or being cool with academic success. (RO1.092)

Here, Rosanne connected issues of identity with social expectations. She put forward that "academic success" and "being cool" may be mutually exclusive for many boys.

Some suggest that boys disengage because curriculum and pedagogy are not aligned with boys' needs. For example, Joseph explained:

> I believe that boys have the ability to have high levels of literacy. . . . [the] style of teaching that we teach boys through language I think is feminised. I think its focus is primarily on structures and activities that girls access better than boys. . . . if you go to your average football game and listen to boys interacting, there is a higher level of interaction, language interaction that is more subtle and it's

very powerful in that group and so they must have the ability to learn this stuff. It is just that they are not engaged in the school environment. (JS1.022)

While boys have a "high level of interaction" in "football games," literacy learning is considered "feminised," causing boys to disengage. Participants suggested that kinaesthetic learning suits boys, but is seldom present in traditional classrooms.

Institutional factors are also considered to be a part of student engagement. Teachers are aware that lack of resources, especially technology, is detrimental to engagement. For example, Beth explained:

> If everyone had access to a computer, they wouldn't have half the problem writing something and I have seen that from my year 11 class that I am working with, the year 11 Communication class. They have had to recently do three documents. They have had to write and two of those documents had to be typed up. Well a lot of them have trouble drafting anything, but as soon as they tried to do it straight onto screen and draft as they went, they were much more co-operative as long as they didn't have to write it out. (BH1.068)

Students were "much more cooperative" when "they didn't have to write it out." Participants indicate that if "everyone had access to a computer," students would have less trouble with writing and be more engaged.

However, data collected indicate that computers are seldom used because of the difficulty accessing them and their limited reliability. For example, Caitlyn explained:

> . . . at this school it is harder to get involved in ICT things. It could be the technology's not working or kids have managed to lose passwords and every time I have attempted it, something very disastrous has happened. (CA2.024)

She suggested that because of the threat that "something very disastrous" can happen, many teachers find it hard to "get involved in ICT things," even though they view it as beneficial for student engagement.

The time of day when a class is scheduled is also thought to affect student engagement. Pupils are perceived as more willing to participate early in the school day because, as Beth argued:

> . . . they are fresh in the morning and they haven't been to any classrooms. . . . If it's a morning class, it is their first or second lesson for the day so there is not too much that could have gone wrong unless it was at home or outside the classroom. . . . and that has got to be a plus for teachers controlling the class. (BH1.028)

Morning classes are considered easier to "control" because the students are "fresh" and "not too much could have gone wrong." Time of day is used to excuse student behaviour and disengagement; teachers indicate that they expect lower standards of behaviour and participation later in the day

5.2.3 The structural aspect: External horizon

Teachers are aware that the context for this type of student engagement is a traditional classroom, the structure of which is taken for granted. Some students are seen as incapable of engaging; these excluded students exist within and affect the nature of this environment.

Classrooms are considered the primary setting for student engagement and are conceptualised in a traditional way, with students sitting and doing what they have been told. Teachers spoke about how their classrooms are organised and run and how students ". . . participate . . . in the classroom process" (E1.051). Some teachers offer a bit of flexibility within the classroom. For example, Beth explained that ". . . some of them [her students] wanted to sit outside and I allowed them to do that. And I kept an eye on both inside and outside by sitting in the doorway" (BH1.034). However, allowing some student to sit outside the classroom is not deviating much from a traditional classroom structure. The teacher is still closely monitoring them by "sitting

in the doorway." Teachers appear to accept a traditional classroom structure as taken for granted. Other school facilities are seldom mentioned. For example, while Caitlyn talked about her use of the computer room at the school, she clarified that it was seldom used because every time she ". . . attempted it, something very disastrous has happened" (CA2.024).

The characteristics described in the internal horizon push some students to the margins of engagement. Their personal characteristics, seen as non-malleable, prevent them from being able to engage, although they remain within the classroom context. Jenny explained that ". . . you would have two or three students who are totally disengaged no matter what. Maybe it's a medical problem, whatever" (JE1.192). While only two or three students fall into this category, this categorisation precludes them from ever engaging; they are "totally disengaged no matter what." These students exist within the environment, negatively affecting the engagement of their peers.

5.2.4 Summary of Category 1 - *What* aspect

In this category, student engagement is pupils participating in teacher-set activities and following the school and classroom rules. Engaged students are content and compliant. Engagement, evidenced through student participation, leads implicitly to learning. The internal horizon of this conception contains institutional characteristics, like the availability of resources and the class' time of day, and characteristics of the students, like their gender, race, and personal make-up. Teachers are aware that these conceptual parts may negatively impact student engagement. Some students are placed in the external horizon as they are seen as unable to engage because of personal qualities. Traditional classrooms are the main physical context for student engagement.

Within Category 2 (Enjoying), teachers continue to envision student engagement as occurring primarily within a traditional classroom context; however, engagement becomes malleable. Student interest and enjoyment are considered keys to engagement. Since all students have interests, all can engage in activities related to these personal hobbies.

5.3 Category 2 of the *what* aspect: Enjoying

In this category, student engagement is pupil interest and enjoyment in participation in what happens at school. Since every student has interests, when those intersect with classroom learning activities, all can engage, at least for short periods of time.

5.3.1 The referential aspect

Within this category, student engagement is primarily characterised by pupil interest and enjoyment in their participation in classroom activities. For example, Hope defined student engagement as ". . . being interested in what is going on in the classroom or wherever it's being taught. Being interested and being an active participant in what is going on" (H1.098). Like Category 1 (Behaving), teaching and learning are defined in a traditional sense. Something is "going on in the classroom" and "being taught"; students are "active participants." However, within this category, some student motives are considered. Teachers perceive that students participate because they are "interested," a key difference from the previous category.

While in Category 1 (Behaving) teachers assume students should participate, here participation is considered contingent on how interesting lessons are. For example, Lily explained:

> I don't think that students will participate in something they are not interested in or that they don't feel that they can use. . . . I mean kids are very egocentric, you know what I mean? It is about me; it is all about me. (L1.012)

Student engagement is still "participation," but lessons must incorporate things pupils "can use" or find "interesting" for students to be expected to participate. Students are considered to be "egocentric," reflecting teacher attitudes towards students discussed more thoroughly in the internal horizon of the *how* aspect in the following chapter.

Teachers are aware that students must enjoy tasks in order to participate. For example, Caitlyn, describing a moment of student engagement, said that there were:

> . . . smiles all round; they're enjoying it. There's a good feeling across the whole class, me included, the whole room. It is just great. We were all there playing, participating at the same time, just absolutely fabulous. (CA1.004)

Here students participate because "they're enjoying it" as opposed to the previous category where they "go with the flow" (BH1.038). When engagement is based on students' interests and involves "fun" activities, teachers perceive that pupils are more willing to participate in teacher-set activities. Behaviour problems described in Category 1 (Behaving) appear to decrease, leading to "good feelings across the whole class."

As in Category 1 (Behaving), learning remains implicit and is assumed when students complete teacher-set activities. These tasks may not have an academic focus. Because interest and enjoyment are the criteria, many activities are considered engaging. For example, Christine explained:

> I don't think it [higher order thinking] has to be going on. . . . some people can be extremely engaged in watching a football game, but there may not be any higher order thinking going on, but they're still engaged. So I think every kid should be given the opportunity to be engaged in higher order thinking to the best of their ability, but that will be different things for different kids. . . . And some kids need that higher order thinking and if they don't get it, they are extremely bored. . . . Other kids, they want more practical, more practical

involvement I guess. I think it just really depends on the learning style of the student and how they are, whatever it is they're doing, however they're feeling at that particular time. (CH1.082, CH1.084, CH1.086)

Here Christine noted that people can be engaged in lots of activities such as "watching a football game" where no "higher order thinking" is going on. Students are divided into those who "want more practical involvement" and those requiring "higher order thinking." "Different things" are needed for "different kids." What students require is seen as depending on "how they are" and how "they're feeling at that particular time"; only certain students are seen as wanting or needing "higher order thinking" skills.

5.3.2 The structural aspect: Internal horizon

Within this category, participants are aware that student interest is complex. Students are not considered interested in academic topics and skills; instead, they are perceived to want their schoolwork to incorporate out of school hobbies. Students are seen as wanting to play games and have fun, showing a less serious attitude towards learning.

Student interests are thought to be specific. For example, Beth noted that:

> . . . sometimes you find kids who click on to a subject and really get involved, and might come across another subject that they have absolutely no interest in whatsoever. . . . there may be kids who like reading or like finding out about stuff that is real life, whereas when it comes to reading fiction about that same type of topic, they might not go for it at all. (BH1.080)

Beth pointed out the specificity of student interest; students may not "go for it at all" if an activity is not directly aligned with their interests. Student interests are considered to be unpredictable and ever-changing, making it difficult to design activities that incorporate them.

Despite the difficulty associated with identifying student interests, teachers perceive that

curriculum should be aligned with topics students enjoy. For example, Christine,

describing a calendar project, explained:

> I don't think it was making the calendar that was interesting. It could have been
> anything. The calendar was purely and simply the vehicle. What engaged them
> was they were dealing with something that they were particularly interested in.
> Whether it was their friends, whether they were talking about friendship, writing
> little things about their friends, or whether they were taking photographs of their
> dogs and choosing what type of photographs they'd take with their dogs. It was
> the content that they chose; it wasn't the calendar as such. (CH1.006)

Christine felt that it was not "making the calendar that was interesting," leading to

student engagement. Instead, it was that students were able to focus on their friends,

pets or whatever else they personally enjoyed.

Enjoyment is considered to be a necessary part of student engagement. Pupils are

thought to have fun when playing games or working with technology. For example,

Hope, speaking about student use of computers, explained that:

> It's active. They're not just sitting writing. They're clacking away on, you know.
> They've got flashing lights and things come up on screen and they can see that;
> it's fun. They can click buttons and go backwards and forwards. It's a game.
> (H1.160)

Hope suggested that when students use computers they are more engaged because

"they're not just sitting writing." Instead they are "clacking away"; "it's fun" and "a

game." Students are seen as comfortable with technology as it is an integral part of most

students' lives outside of school. The visual and kinaesthetic stimulation computers

provide are also seen as contributing to student engagement.

5.3.3 The structural aspect: External horizon

Unlike the previous category, teachers indicate that it is possible for all students to

engage provided that out of school interests are the focus of schoolwork; none are

relegated to the external horizon. Traditional classroom and school contexts provide locations for engagement.

Teachers are aware of a broader physical context for student engagement than they are in Category 1 (Behaving). Teachers include other school facilities and extracurricular activities as potential sites for engagement. For example, Christine suggested physical contexts apart from the traditional classroom are needed for participation and learning, saying:

> Well, have a look around [gestures around the classroom]. Who could learn? Who could learn sitting here? No you can't. They've got to be doing different [things]. Like there are times when they've got to be over in the library; there are times when they've got to be at a computer. There are times when there's got to be 2-3 of them sitting out on the veranda doing something. There are times when there's got to be kids under a tree there reading. . . . That's a natural way to learn. It's not natural to sit in a classroom like this and learn. It's just not natural. (CH1.118)

She talked extensively about "natural" ways to learn, exploring alternative settings on the school grounds like "on the veranda," "in the library," and "under a tree." While Christine suggested working in classrooms detracts from engagement, she acknowledged that classrooms must also be used, saying, ". . . you can't do that [be outside the classroom] all the time. Obviously no. I just think that goes without saying" (CH1.122). In this category, teachers begin to identify conflict between what they consider best for student engagement and what is expected in schools. In this case, while Christine articulated that students cannot achieve optimal learning within a classroom, she indicated that she must conduct most classes in that setting because of current school structures.

Participants are aware that student engagement also occurs through cultural and sporting activities as well as academic contexts. Jenny explained that for some students, these

activities may be more important than their academic study. When asked to define student engagement, she described it as:

> . . . participating in all the things that are going on. Like in the classroom, on the sports field, whatever if that is your thing. Or in the media room if that is your thing; you're drama or if you're in music, all those other . . . Like the other outside things as well as the academic things, yeah they are sort of part and parcel of learning aren't they? . . . Obviously their goals in life are more around those things. I had cousins who ended up in the London Symphony Orchestra and everything else and they got As in Year 12 in music and they failed everything else. But, you know, they have had a real success in their lives, but they are all music and nothing else, but that is their thing. (JE1.118, JE1.122)

Here Jenny suggested that activities like drama, music, and sport can lead to successful careers and that student participation in "their thing" should be valued as highly as academic success. She used her cousins as an example; their careers in music were not hampered by failure in traditional school subjects. There is a broader understanding of what counts as learning here than in previous categories; non-academic areas are also considered important.

5.3.4 Summary of Category 2 - *What* aspect

In this category, engagement is student interest and enjoyment in school participation. Like the previous category, learning is implicit in student engagement, occurring through participation. Participants are aware that students are engaged when activities are "fun" because of the use of games or ICTs, or when activities connect to students' out-of-school interests; these parts form the internal horizon. A variety of school settings are seen as contexts for student engagement, forming the external horizon. For example, students can engage while sitting under trees, working in the computer lab, or participating in extracurricular activities.

In the next category, student engagement remains synonymous with participation. However, participants become aware of a wider range of student factors including motivation and confidence that drive participation and therefore engagement.

5.4 Category 3 of the *what* aspect: Being motivated

In this category, student engagement is pupil motivation to participate at school and confidence in their ability to succeed. Teachers perceive that students expect rewards and validation from engagement. While most teachers still categorised student engagement as "doing," "working," and "participating," some mentioned learning more explicitly as an outcome of these actions.

5.4.1 The referential aspect

Within this category, confidence and motivation are considered necessary for participation and learning. For example, Billy explained that when he talked about engaged students, he was:

> . . . not talking about the geniuses or the gifted and talented . . . I just call them [engaged students] high flyers. They are high in motivation, high in confidence. They're probably what we are talking about with the fully engaged kids, so that is a language I have always used. (BY1.048)

In this category, "fully engaged kids" are "high in motivation" and "high in confidence." Here, teachers distinguish between "gifted and talented" students and "engaged" students; all students, regardless of ability, are seen as able to engage, not just those who are talented academically.

Within this category, participants link student engagement with extrinsic more than intrinsic motivation. Success, acceptance, and positive reinforcement are considered to be powerful motivators because ". . . if it makes you feel good to do something, you want to do it over and over again because that's just human nature. If it makes you feel

good, you want more. . ." (JL1.298). Confidence is important because when students

"… become isolated so they are not confident in what they want to say, they do not feel

that they can participate well" (L1.032). Students who do not believe they can

"participate well" are seen as less likely to engage.

In this category, learning becomes discussed more explicitly despite a continuing focus

on participation. For example, Jill talked about learning when discussing student

engagement:

> The high flying girls engage more because they have a confidence in their ability
> to achieve and they have a confidence with the other students in the class and a
> certain confidence with the teacher and I think that makes them feel more
> comfortable to engage in learning. So I think that definitely drives them to want
> to learn. (JL1.064)

By having self, peer, and teacher acceptance, students are considered willing to engage

because they "feel more comfortable." Jill talked specifically about how the girls

"engage in learning" and "want to learn," showing that within this category some

participants begin to focus directly on learning instead of just assuming it occurs

through participation.

5.4.2 The structural aspect: Internal horizon

Within this category, participants are aware that students are motivated through

extrinsic rewards. Participants consider academic results to be the primary way students

are rewarded in school. Teachers are aware that student confidence grows when

students experience success and receive positive affirmation from peers, teachers, and

parents.

Extrinsic rewards are considered to be an important part of student engagement.

Students are seen as unlikely to participate without these extrinsic rewards. For

example, Mary explained:

> You don't get the [right] attitude towards anything if you never get any rewards along the way there. I wouldn't come to work if I wasn't paid and I think it's the same with kids. They don't get paid; they don't get any rewards from being at school. They just get into trouble all day, every day and it becomes a vicious cycle . . . (MR1.076)

This passage is representative showing the common assumption within this category

that people are only motivated to do things when they know they will be rewarded.

Participants suggest that because "disengaged" students don't "get paid" at school, they

lack motivation to participate.

Participants are aware that academic marks are the primary extrinsic reward offered at

schools. Madeline explained that because grades are the motivator, students are usually

only concerned with learning what they perceive will get them better marks, saying:

> . . . one thing that engaged them was things that would help them with their assessment. I think they are assessment focused a lot of the time, so they could see that they had a bit of an understanding of discourse, but how it related to the assessment was what they really wanted to know about. (MD1.004)

While these students were willing to participate, they were primarily interested in "how

it related to the assessment," what they "really wanted to know about." They didn't

appear interested in learning about things unrelated to tasks that would be marked.

Participants are also aware that students not receiving extrinsic rewards like high marks

may lose confidence, seeking affirmation elsewhere. For example, Jill explained how a

former classmate:

> . . . would purposely just not do assignments because he knew that he'd get a failing grade for it. So it's difficult. He defined himself through his relationships with the rest of his cohort, so he wasn't the smart kid. He was the artist, the

surfie bum, and that's how people knew him and that's how he validated himself as well. (JL1.144, JL1.146)

Jill suggested that her classmate lacked confidence because he was unable to obtain a passing grade. Instead, he had to seek rewards and validation from peers, rebelling against participation by "purposely just not doing assignments." Unlike previous categories, here teachers express awareness of more complex psychological understandings of students.

Peers are also seen as having a strong role in motivating students to engage. For example, Ray explained that most engaged students ". . . probably have a peer group that challenges their thinking. They have a group that is happy to explore things" (RY1.040). Madeline suggested that friendly competition between peers creates motivation and engagement:

> I think the competition sometimes [motivates students], friendly competition between students who usually are reasonable achievers. I think they see that they want to do as well as they can for themselves, but they also feel that it would be nice to be the best at that particular thing and I think that helps engage some, like a particular type of student. Not everyone is motivated by that, but there are certain people that are. (MD1.064)

Participants are aware that the extrinsic reward of being "the best at that particular thing" can stimulate student participation and achievement; competition is seen as driving the engagement of some students.

However, participants are also aware that peers can undermine student engagement by validating rebellion and under-achievement. For example, George explained that:

> A lot of the time you will see a student who you know is more capable than the level that they are achieving at and you see that that student may . . . be doing that for a peer culture reason. . . . Their friends may be at a satisfactory level, where they may be at a high level, but to be in the same sorts of classes with their friends and to not be put down by their friends; it goes with the whole tall poppy syndrome. They tend to do less work…. They don't hand in a draft and what they do hand in for their final piece is a first draft and that's passable, yet if

they had of put more effort into it they would definitely get a higher rating.
(G1.036)

This passage indicates teacher awareness that peers can validate low achievement,

motivating students to "do less work" so they are better assimilated into their social

group. Peers are considered problematic when they are not at the same "level" of

achievement; lower level students are seen as bringing down the achievement of higher

level peers.

Many motivated and confident students are assumed to have very supportive families

that validate school values and objectives; participants are aware that this support

facilitates student success. For example, Diane explained:

> I would say kids that get success out of education [pause] are almost always
> more engaged than kids who don't get success out of education. So the sorts of
> kids who come from a family environment that doesn't value education or
> school as opposed to kids who whose parents are constantly emphasising the
> importance of it . . . those are the kids who experience success. (D1.030)

Teachers see "family" and upbringing as significantly influencing student "success" at

school. Students coming from families that "are constantly emphasising the importance"

of education are assumed to be "the kids who experience success."

However, participants are aware that parental affirmation of school values may not

always lead to student engagement. For example, Jenny explained that ". . . you get a lot

of kids who are, there is that home encouragement that kids take no notice of"

(JE1.070). Teachers also acknowledge that some parents are not equipped to provide

support for their children because they also lack confidence and skills. For example,

Rosanne explained:

> See a lot of parents, they're not well educated themselves; they don't understand
> high schools. They probably didn't have a very good . . . school experience.
> They want their kids to do well . . . but they don't really know how to go about
> it, especially in high school. . . . They often don't understand their kid's work. . .

> If they haven't got a computer at home, as the kids get older, they are really severely disadvantaged. . . . When I was acting HOD a few years back, I had a whole heap of kids that hadn't done assignments. When I checked, 90% of them were single parents and all of those single parents were mothers of teenage boys and the mothers just weren't coping with them. Not just academically, they weren't coping with those boys in terms of behaviour at home and they didn't really know what to do with them. They certainly couldn't help me in terms of getting their work done because they couldn't do much with them at all. (RO1.084)

Rosanne articulated that some parents are less equipped to provide educational help than others because of financial or personal limitations. Even though they "want their kids to do well," these parents "don't really know how to go about" it. Teachers assume that traditional two parent family structures are more successful at encouraging students to value education than others like single parents.

5.4.3 The structural aspect: External horizon

Within this category, the classroom and school environments, including extracurricular activities, are still the primary contexts for student engagement, remaining the same as Category 2 (Enjoying). However, participants are aware that students must feel supported within these environments to engage. Students and teachers are seen as developing a supportive class environment together. For example, William explained:

> Even if the student doesn't necessarily particularly like the subject, if they feel welcome in the classroom . . . that is determined predominantly by the teacher, but not solely. If you have a class where it is a good supportive, for want of a better word, group, and the teacher is friendly, I mean is easy to get on with, doesn't yell and scream and so forth. In that non-threatening environment, I think that students are much more likely to engage in things, even things that they wouldn't normally think that they could do, because the threats are taken away and so it is possible, and particularly with a bit of peer support to get students engaged in something that is even beyond them. (WM1.052)

This passage shows that teachers are aware that the "feel" of a physical location like a classroom affects students' willingness to engage there. If students "feel welcome," they may engage even if they do not "particularly like the subject," an important difference from the previous category. Teachers are aware that students must feel welcomed by

peers and the teacher. A "non-threatening environment" gives students the confidence to

engage in things they may not "normally think that they could do."

When classrooms have a supportive environment, teachers suggest that students

positively influence their peers. For example, Rosanne explained:

> So class dynamics are important too. I mean in some classrooms, the same kid in
> one class will work differently . . . it's not just the interest in the subject, it's the
> kids in the room. If you get a problem kid in a well-behaved, motivated class,
> they're not a problem anymore. And often they conform to what the others are
> doing, so it varies. (RO1.127)

She clarified that student engagement is "not just interest in the subject"; it becomes

broader. An environment with "well behaved, motivated" students can help others

become engaged. In this category, teachers recognise that "problem kids" are only

disengaged within certain environments. If the classroom environment is good, students

are not "problems anymore" because they "conform" to what their well behaved peers

are doing.

While students can help create a supportive environment, participants are aware that

students can also destroy it. For example, John commented that:

> . . . especially when other students are trying to emulate those [badly behaved]
> students or when the student is so forceful in the way that they are misbehaving,
> [it] can really frustrate a teacher. It can frustrate other students. You can have
> low-level harassment in your class, which totally takes away a student's
> engagement, if they are being harassed verbally, or even occasionally physically.
> (JN1.028)

When students are experiencing "low-level harassment" from their peers, it "takes away

a student's engagement." Teachers and students are frustrated by those "trying to

emulate" bad behaviour, destroying the positive environment. Teachers indicate that in

some cases, they have little control over these poorly behaved students.

5.4.4 Summary of Category 3 - *What* aspect

In this category, engagement is student motivation to participate and confidence in their ability to succeed in what happens at school. Motivation in this category is viewed primarily in extrinsic terms. Rewards and validation are considered important parts of student engagement. The internal horizon includes rewards like academic marks and affirmation from parents and peers. Learning is a more explicit focus, despite the continued emphasis on participation. While student engagement still takes place within the context of the school and its corresponding extracurricular activities like in Category 2 (Enjoying), a greater focus is put on the type of class environment conducive to engagement. Teachers are aware that students engage within a supportive environment created by both teachers and students; this context forms the external horizon.

In the next category, teachers become aware that students want to know and learn. These desires are seen as driving student engagement.

5.5 Category 4 of the *what* aspect: Thinking

In this category, student engagement is being involved by thinking. Here, participants assume that students can engage in teacher-created learning activities as long as work is intellectually appropriate. Students are seen as possessing knowledge and skills that enable them to learn.

5.5.1 The referential aspect

In this category, student engagement is considered to be pupils thinking and using mental processes. For example, George describes engagement as occurring when students ". . . are not simply learning what needs to be taught. They are thinking about what they are learning" (G1.067). While in previous categories learning was generally

implicit, an outcome of participation, in this category learning is discussed explicitly

and is not tied to participation. Students are seen as wanting to know things, unlike the

previous category where they are learning "what needs to be taught" to receive extrinsic

rewards.

Engagement is seen as occurring when students are thinking. For example, William

explained:

> The engagement term, it's a little bit like if you go to the toilet and it is engaged. Well, it means it is occupied. There's someone in there. The same with students. If they are engaged, they are occupied. It is not just a matter of being occupied in doing something; it means that their minds are occupied with the task at hand. Now it could be an easy task; it could be a very difficult task, but their minds are occupied with that task. To me, that is engagement. (WM1.020)

While William used the term "occupied," similar to data in Category 1 (Behaving), he

specified that students must be mentally not physically occupied. Students' "minds are

occupied with the task at hand" when they are engaged. While teachers still supply

these "easy" or "difficult" tasks, students engage because activities provide them with

something mentally stimulating.

Within this category, participants suggest that teacher actions can stimulate student

thinking. For example, William explained:

> If we go to senior students now, trying to get them to do that sort of activity that is nice and easy, you probably won't engage them particularly at all. Whereas if you were working on them individually with something that is thought provoking, something that they find interesting and challenging, then you will find that they are engaged. But that is more of an individual thing. It is much more difficult at that level of reasoning to engage students with something that is fairly mundane. (WM1.024)

He argued that "nice and easy" and "fairly mundane" work will not engage senior

students; intellectual challenge is necessary to prevent disengagement. Teachers indicate

that senior students require more cognitive challenge than those in junior schooling.

Participants are aware that engagement requires "working with students individually," but while teachers talk about making efforts to meet individual needs, there is still no discussion about student input into curriculum. Students are not perceived as requiring active involvement in decisions regarding their learning; instead teachers create activities they believe will challenge students.

Within this category, teachers acknowledge that students manifest their thinking in various ways. For example, William explained that physical signs of being "occupied" are not necessary, stating:

> A person to be engaged does not necessarily need to be physically doing anything. They don't need to be writing. They don't need to be reading, they don't. Those things don't necessarily need to be happening. It is what is going on upstairs. It is what is going on in their mind. (WM1.060)

In this category, teachers consider students to be engaged based on "what is going on upstairs" not on physical behaviours indicating that "… it's a cognitive thing" (WM1.064). These representative passages of data signify a major shift from previous categories as participants no longer rely on visible actions to determine student engagement.

Some teachers further problematise what counts as engaged behaviour. For example, Joseph explained:

> I could have guesses [about who is engaged], and I think most of the time you could get pretty close to right, but there are a lot of kids that you just don't realise what they have taken in. For example, I had a boy who spent most of the art class with his head slumped on the desk, especially during art discussions about artwork and that stuff. But when it came to him doing the exam on the art works that we discussed through class, he got the highest marks. He was a person who was definitely engaged in his own style of engagement, which was he sat very still and listened, and had a look at the art works, and he was not interested in interacting in the discussion. It was his way of being a bystander type person who learnt through observations. And in later years, he did senior art and when I talked to him about some of these things, and he started talking about

his family. He had a very violent mother and father relationship and his life was about being a quiet bystander and listening in and observing and analysing what was happening and so this was a style of learning and a style engagement that he had where he knew how draw information in his own way. (JS1.046)

Because of Joseph's understanding of student engagement, broader than conceptions articulated in previous categories, he realised that the boy was engaged despite being "slumped on the desk." Joseph used the student's test results to substantiate that the student was engaged, unlike teachers in previous categories who just assume that students not visibly participating are disengaged (BH1.090).

Participants further problematise the conceptions of student engagement found in previous categories by questioning the value of participation. For example, Joseph explained:

> I mean people are happy with the perception of engagement as just a good quiet class that is interacting and asking questions, but I have been at uni where people sit there and ask really informative and interesting questions, but they are only doing it because that is the role play thing. And they are not really taking it in. It is like "if I just look intelligent here for the moment, it will go and everyone will see it and it will affect my marks" and that is the way to get marks, but that is not a way of learning and how learning works for an individual and that sort of stuff. (JS1.044)

Joseph questioned if students who are participating are actually thinking and learning, suggesting they could be participating in a "role play." This statement is evidence of the growing speculation within this category about the value of participation.

5.5.2 The structural aspect: Internal horizon

Within the internal horizon are the parts teachers see as necessary for learning including general knowledge, intellectual challenge, and maturity. Student prior knowledge is considered essential for learning new things. For example, William explained:

> . . . without any base of general knowledge, there is very, very little to build on there and so again that equals lack of engagement. I mean if you or I were to sit down in a nuclear physics class, because our knowledge base is so limited, we would find it very, very difficult to occupy our minds with all this stuff that is

going on, whereas a person with a good knowledge base would find very easy. So in terms of engagement, the broader the knowledge base, the more chance [of engagement]. (WM1.030)

He stressed the importance of a "knowledge base" so students can understand and engage in what is being offered in the classroom. Without one, it is considered "very, very difficult to occupy our minds will all this stuff." In this category, teachers are aware that students who have gaps in their education or who lack basic skills may find engaging in tasks difficult and acknowledge the importance of developing a strong skill base for student engagement.

Teachers are aware that prior knowledge is the foundation for new learning as it can be built upon. For example, Diane explained that engaged students:

> . . . have a fairly good general knowledge anyway about other things. That helps them understand concepts more readily because they can fit it into a knowledge set that they already have, you know. And they just keep building on it like a set of blocks. (D1.052)

While Diane used the analogy of a set of blocks to describe the way knowledge builds on itself, William described the relationship as a series of hat pegs where you can "hang" or classify knowledge, connecting past learning with new information (WM1.032). Both analogies indicate that within this category, teachers are aware that new knowledge must be connected to previous learning.

Participants are also aware that students must have a level of maturity to think and engage. For example, Hope commented that:

> Academic learning I'd say definitely requires a certain level of maturity. Learning how to use your knife and fork and say please and thank you, that sort of learning doesn't require too much thinking, but academic learning definitely [pause] requires a certain level of maturity. (H1.032)

While "academic learning requires a certain level of maturity," students are not excluded from learning because of this. Students who are less mature can still learn non-academic things that don't require "too much thinking."

Participants also articulate that many students want to be cognitively challenged. For example, Beth said:

> I think a lot of kids do [want challenge]. I think even probably the ones that we struggle with in our classes probably are looking for a challenge in the classroom. I mean why would you come to class otherwise? I mean it must be boring for a lot of these kids who just come and sit in the classroom and are tuned out. I mean what are they doing here? Surely it would be much more exciting for them to be challenged to see if they can wag school for the day, otherwise they probably would not be in the class. So they are looking for something when they come into the classroom; they must be . . . (BH1.100)

Within this category, teachers are aware that students do want to be challenged. Beth suggested students are "looking for something" when they come to the classroom, even "the ones that we struggle with in our classes" because "it must be boring" to be "tuned out." All students are seen as having a desire to learn.

5.5.3 The structural aspect: External horizon

The physical context for student engagement widens from Category 3 (Being motivated) to include learning environments outside of the classroom. For example, William stated:

> The environment, classroom environment or learning environment issue, doesn't have to be a classroom, the learning environment issue is a huge one. If that is good, then a lot of other things follow and engagement is a big part of that. (WM1.052)

While William did not specify exactly what he means by "other learning environments," he was likely referring to places conducive to thinking based on his comments on student engagement throughout the interview. Like Category 3 (Being motivated), the

environment is seen as important to creating and maintaining student engagement; "if that is good," then "other things follow."

5.5.4 Summary of Category 4 - *What* aspect

In this category, student engagement is being involved by thinking. Students are considered to want to know and learn; their motivation is less tied to rewards and validation than in previous categories. Observable behaviours are no longer considered reliable indicators of student engagement. While students still participate to engage, teachers are aware that students may take part in a variety of ways. Learning is discussed in explicit terms and is considered to be the result of student thinking, evidenced by increased student understanding and achievement. Participants are aware that students are most likely to engage when they begin to mature and when new learning connects to students' prior knowledge and is at an appropriate level of challenge; these parts form the internal horizon. The context of student engagement expands from previous categories to include environments outside of the school that are conducive to learning.

Student desires to know and learn are further established in Category 5 (Seeing purpose). Students are seen as having tangible goals they are working towards that can be linked to their school learning.

5.6 Category 5 of the *what* aspect: Seeing purpose

In this category, student engagement is pupils purposefully learning to achieve life goals. Teachers suggest that students must be aware of the reasons why they are learning to fully engage. School learning must be aligned with student goals and purposes.

5.6.1 The referential aspect

Within this category, student engagement is pupils learning in a purposeful way to achieve personal goals. For example, Joseph explained:

> We had a girl who . . . in grade 9 was just a shocker, and there are a whole lot of reasons why, family background and all these things. Missed a substantial part of the learning through truancy and bad behaviour and suspensions and all this stuff, but come year 11 is one of the highest achieving students that we have got. A couple of things have changed in her life obviously, she has moved into a different family background and home, but she had answered some questions for herself about the value and purpose of why she was in a classroom and actually addressed that over that year 10 to 11 period. Once she had come to terms with why she was here, what her purpose was, then it was her choice to be in all these classes and she understood the reason behind her having to hand in or write this or do this bit of homework. Everything had its purpose. Kids that don't have that, they don't get engaged because there is no point in it. They don't see the link to things. (JS1.030)

Teachers identify that students must see the purpose behind what they are learning; those who cannot fail to "get engaged because there is no point in it." In Joseph's example, the student did not engage until she had "come to terms with why she was here" and "what her purpose was." After establishing a purpose for her learning, she was able to see how what she was being asked to do at school connected with her future goals. Teachers are aware that until students can see the purpose behind schooling and what they are doing within their classes, they are unlikely to engage.

Participants realise that students become engaged when tasks have clear purpose. For example, George, discussing a media project he completed with his class, explained, "… the students really engaged because they saw purpose in what they were doing. It wasn't just an assignment; it actually had some sort of meaning" (G1.004). Teachers realise they must transform learning activities to make them more than "just an assignment."

Participants suggest that many students disengage because they do not see the relevance of the learning. For example, Hope spoke of her own high school experience in maths:

> . . . [I] was not ever engaged in maths. Couldn't stand it, so I just didn't learn, just didn't. Wasn't in the least bit bothered. And it didn't matter how wonderful the teacher was or how exciting the lesson was, if I didn't want to learn it, I wasn't going to. I couldn't see the point in it. I could not see the point. I felt that if I could add up, subtract, multiply, and divide, as far as I was concerned, that was all I was going to need in my life, and it is all I've ever needed in my life … (H1.102)

Hope explained she did not "see the point in it" and did not engage, despite teacher efforts to make the lessons exciting. It was not a "subject she liked," so she "just didn't learn." In her thinking, she could "add up, subtract, multiply, and divide," so she had all she "was going to need in life"; there was no reason to learn more. While learning is talked about explicitly in this category, when not connected to a purpose meaningful for the student, learning is considered unlikely to occur despite teacher efforts to make activities interesting.

5.6.2 The structural aspect: Internal horizon

The internal horizon of this category is composed of the parts considered necessary for students to establish a purpose for learning. Participants are aware that students must have goals and connect learning to meaningful real world situations. For example, Billy noted:

> Those kids who are high flyers or high motivators, high confidence and engaged, they see a future for themselves. . . . I have questioned them about that and they can honestly see a future. "Yeah, I will get a good job; I will be a lawyer or whatever it is. I will have a family; I will do a bit of travel." They have a vision of the future so they are going somewhere. Talk to these kids that are disengaged and I ask them this question on purpose now. They don't see a future for themselves at all past the end of the day, which is pretty scary. I am not say they think they are going to die or anything like that, they just don't envisage a future, which is really interesting. (BY1.032)

Here, Billy contrasted those with and without future goals, pointing out that disengaged students "don't see a future for themselves." The goals he discussed are not all career ones, as he mentioned family and travel.

Jenny also suggested that a wide range of goals can help students establish purpose for learning:

> They [engaged students] have a specific goal in mind of what they want to be. Whether they just want to grow up and own flash car or own their own home, they have got these goals set. They want to be able to have choices, choose what they want to do when they leave school, not just go into any job or go on the dole or whatever. (JE1.094)

Participants are aware that having goals helps students want to "have choices" personally and financially "when they leave school," giving them reason to engage. Teachers perceive that even personal goals can be connected with school learning.

While goals can help most students engage, participants are aware that some students do not connect schoolwork with their planned career. Hope explained that some students:

> . . . say, "Well what is it [education] going to do for me? You know, I am just going to go fencing with my Dad anyway. I am just here cause I have to be here." (H1.018)

Teachers acknowledge that some students may not see how their goal connects with school learning. This example suggests that either school learning is not relevant to some student career goals or that the purpose of what students are asked to do at school is not being articulated clearly to all students.

Participants are aware that students need to be able to make connections between the classroom and their world. For example, Hope explained:

> We were discussing in my English Communications class the elections and the reasons we should vote with my year 12s and they were pretty disinterested in voting. They weren't going to bother with voting and we just had a big

discussion about it and I explained it all. And to one boy, unfortunately a One Nation voter, I said, "You will never get One Nation into power if you don't vote. It is your voice; you need to do it." We discussed it for a while, and he said, "Thank you very much Miss. I've learned something today. We need to exercise our political, you know, powers." And he said, "I think this is the most I have learnt for ages." But it was something he believed strongly in, something that affected his life and I explained it to him and he was really engaged. (H1.002)

In this example, the student was considered engaged because it was something "he believed strongly in" and that "affected his life," giving the learning a purpose. Because the learning about the political process was linked to a goal (getting One Nation into power), it became more meaningful for the student.

Teachers suggest that some students require school learning to be practical, producing tangible, visible outcomes. For example, Beth explained:

Well, I think a lot of kids don't see the point in it. They don't think there is any connection between what they do at the school and what they are going to be doing in later life. . . . unless it is relevant and unless it's meaningful to them. I mean they can't see into the future. They don't want to take other people's word for what they see as being important in the lives of students. It doesn't have direct meaning for them, so they tune out. But if they are doing something hands on that is practical where they are constructing something and they can see the end product here and now, that is a different situation. (BH1.048)

She commented that "lots of kids don't see the point" of what they are doing at school; it is not "relevant" and "meaningful." Practical projects where students "are constructing something" and "can see the end product" are perceived as helping students see a more concrete purpose to what they are doing in class.

5.6.3 The structural aspect: External horizon

Within the external horizon, the physical context of student engagement widens to include workplaces. The context includes community members and groups, as ". . . the school community is more than just the students and the teachers" (RY1.060). Unlike the previous categories where focus remains primarily on school settings, here

workplaces become preferred sites for student engagement. For example, Joseph explained:

> You will find that they might be terrible at school, but you take them on a work experience day with a builder, a local builder or something like that, and they are just inspirational because they have suddenly found this place that they just fit into. It clicks and they see how this could be an important place because they are preconditioned with their values systems and understandings. They go, "This is what I think real learning is about and this is the environment where I should be learning" and so that is where they decide to learn. (JS1.020)

Joseph suggested that "a work experience day" can help students find a place "they just fit into." Learning in this context aligns with their goals and "they decide to learn." Teachers are aware that traditional school settings are not effective for all students and advocate that a range of options should be available.

Participants argue that for many students, workplace learning is probably the most effective setting for student engagement, some contending it should be mandatory in vocational courses. For example, Jack argued:

> . . . one reform I'd like to see, students who are doing certificate courses in year 11 and 12, they don't have the option of a traineeship or some sort of work placement; it's built into what they're doing. Right, it's not an option. They have to go and do it because I think that it gives them that relativity. They go out hands-on working in the community and see what is expected, but it also shows them what they can do. By going out and working in an office or working in a garage or working, you know, somewhere digging a ditch for a plumber, working for a plumber. Good, they can see what the workforce entails, how they're expected to behave, how they're expected to participate. You know, I could sit in the classroom and say, "Alright, plumbers dig holes as part of their job," and they'll say, "Oh yeah, right, whatever." Whereas if they were out there and they were actually working with a plumber and had to dig the hole, "Hey, yeah, Mr. Jack was right. Mr. Jack was right." (JK1.130)

Here he suggested that work experience and traineeships should be built into the curriculum, especially for certificate courses. He considered workforce learning as an opportunity to set expectations and also "show them what they can do," encouraging students to continue learning. Teachers in this category realise that schools are only one place for learning and suggest that for some students, other settings are more powerful.

5.6.4 Summary of Category 5 - *What* aspect

In this category, engagement is students purposefully learning to achieve life goals. Participants are aware that learning must be connected to students' goals and the world outside of school; these parts form the internal horizon. Teachers acknowledge that for many students, purpose is more easily established when learning has visible outcomes. The physical context widens to include worksites, seen as powerful places for learning.

Within the final category, teachers become aware that students not only need to see purpose for learning, but must also develop ownership of it. Teachers perceive that students need to be given independence within and responsibility for their learning.

5.7 Category 6 of the *what* aspect: Owning

In this category, student engagement is owning and valuing learning. Engaged students are as seen as exercising a high level of control over their learning and as being intrinsically motivated. Engaging disengaged students is no longer the primary focus; here teachers indicate that trying to engage students further is the main objective.

5.7.1 The referential aspect

Here in the final category, student engagement is considered to be based on pupil ownership and value of their learning. For example, Diane explained student engagement is ". . . owning the stuff that they do and valuing it, doing it because they value it and own it" (D1.062). Teachers are aware that students must have significant control over their learning in order to engage at a high level. While in previous categories teachers are concerned with the quantity of engagement (how many students are engaged), here teachers are interested in the quality of student engagement.

Participants explain that students who are engaged love learning and do not confine their learning to educational tasks or units of work. Jill explained that for engaged students:

> . . . the interest goes beyond just completing a task and I don't think that just working well in class is engagement. . . . I think that sort of thirst for more after the task is finished is important, what we're sort of trying to aim for. (JL1.150, JL1.152)

Jill put forward that "just working well in class" is not engagement; students must "thirst for more after the task is finished." While those who "work well in class" would be considered engaged according to the criteria in previous categories, here teachers do not consider this engaged behaviour as they evaluate the quality of engagement, aiming to get students to "go beyond just completing a task."

Student engagement is considered to be a personal relationship with learning. For example, Mary suggested:

> . . . ultimately it gets back to what I see as the most vital ingredient of education and that is relationships. Now an engagement traditionally means a close tie between two people who have promised their lives to each other. . . And if I could think that students could love their education so much that they become engaged with themselves in a process of lifelong learning, then that's great. (MR1.126)

She understood student engagement to be a "relationship," a "close tie" between people and learning because they "love their education." Because students value education, they become involved "in a process of lifelong learning." Lifelong learning is not considered in previous categories where participants appear to associate learning primarily with formal schooling.

Values are discussed differently in this category than in Category 3 (Being motivated). Personal values are distinguished from family values. For example, Joseph explained:

You can be engaged because someone made you engaged indirectly. My family influenced me in this way to value this and that sort of stuff and they may be involved. But truly engaged and owning the learning and taking from it the things that they want and see that they need sort of thing, that is a higher level I think. You can see people engaged with the perception of their head's down doing this and it is that idea, but really drawing it into their core and understanding is going to have to happen because they are choosing it to happen. (JS1.032)

Here, students engage not because their friends and "family influenced" them to "value this," but because they intrinsically value learning. Unlike previous categories where student engagement is viewed in binary terms of engaged or disengaged, here teachers are aware that there are varying levels of engagement. Students considered engaged are seen as being potentially engaged at a "higher level."

Learning is the explicit goal of student engagement. For example, Mary stated that "an engaged student is someone who wants to be here, someone who wants to be learning. Your lifelong learner, engaged student, lifelong learner" (MR1.110). She suggested that because an engaged student is "someone who wants to be learning," they will continue formally or informally after leaving school. Unlike Category 5 (Seeing purpose), students engage for the love of learning, not just because it is tied to pragmatic purposes.

5.7.2 The structural aspect: Internal horizon

The internal horizon contains the parts considered necessary for student ownership and value of learning. Participants are aware that students must be independent and intrinsically motivated. Teachers perceive that students can own learning either by creating learning activities or manipulating teacher-set ones.

Participants are aware that engaged students are intrinsically motivated to learn. For example, Diane explained engaged students are:

> Kids who just want to know about the world. I don't know if I like the sponge metaphor very much, but in a way they're a little bit like that; they just want to suck up things. They're looking for more, like the sorts of kids who just are hungry to know, hungry for knowledge and that can be different for different kids. Some kids just want to know a little bit about everything and have a taste. Other kids have a thirst for a really deep knowledge of one particular subject. (D1.052)

These students are "hungry for knowledge" and "they just want to suck up things."

Unlike Category 3 (Being motivated), here students are driven intrinsically by their "hunger" for learning.

Teachers suggest that students need independence to own and value learning. For example, Mary stated:

> An engaged student, I would say it would be a student who I would enjoy working side by side [with], facilitating their learning, going off in different directions, working very independently. . . . We can both do our own thing. I'd love to be sitting over in the library doing my own research with a kid doing their research and sharing our learning together. That's what I'd like to do. (MR1.092, 1.094)

Engaged students are capable of "going off in different directions," and "working very independently"; this independence is considered necessary for ownership. Here teachers and students are "sharing learning together," indicating a different student-teacher relationship to those described in previous categories.

Participants are aware that students can "own" tasks either by creating them or manipulating existing ones. When students manipulate or go beyond a task, they construct their own knowledge instead of relying on what the teacher has given. For example, Ray explained that:

> If there is a request to do something or produce something, they [an engaged student] would probably take that and explore it and maybe deconstruct it,

reconstruct it, and add their own interpretation to it. So they are not going to regurgitate something that you have given them, but they would probably have actually added their own ideas or bias or whatever to it. (RY1.048)

Students working beyond the task "deconstruct it, reconstruct it, and add their own interpretations to it" and do not "regurgitate" knowledge. They "have actually added their own ideas or bias," making it their own.

When students go beyond the task given by their teacher, they also often reflect on their learning. For example, Diane stated that engaged students:

> . . . often go away from your classroom and they will think about that issue or whatever at home. They might talk to other adults or mentors or friends or peers about it and then come back to you with a bit more knowledge, a bit more of an understanding and check with you. (D1.056)

These students will "think" about what they are studying, "talk" to others about it, then "check" back with teachers to confirm their new knowledge and understanding.

Participants are aware that engaged students often work beyond their current level and ask questions about issues related to the topic, but not mentioned in class. As John explained, they are:

> . . . going beyond questions that go beyond the scope of the content or beyond the level of thinking you thought was appropriate. That is great, and they are engaged. In 11 Maths B in one of my classes, I have got some students who will ask, "So why don't we apply this procedure to this?" or "Could we apply this procedure to this?" and that is fantastic. I'll be like, "Excellent, because that is what we will be doing next year in year 12 Maths B and you'll learn that" so it's an excellent question. And if I have time I'll actually show them, but it depends on time. That is an engaged student. (JN1.073)

Here, students are interested in the concepts and how they can be applied, not just in the material outlined in their specific course. This student attitude reflects a disposition towards lifelong learning.

Teachers are aware that students must be allowed significant involvement in setting the class agenda. For example, Diane explained:

> When the teacher's there dictating what we do, then some kids are going to own it because they happen to be interested and other kids are not. So when it comes from the kids . . . I saw with that class, [they] picked it up and just ran with it because . . . they had chosen it themselves. They were interested in it. (D1.082)

She talked about how because her students had "chosen it themselves," they "picked it up and just ran with it." She contrasted this with what happens when "the teacher's dictating"; some students will engage, but many will not. Teachers acknowledge here that students must have active involvement in choosing what they learn about.

5.7.3 The structural aspect: External horizon

The external horizon of this category broadens from previous categories. The physical context of learning includes all settings, both formal and informal. Unlike Category 5 (Seeing purpose), workplace learning sites are not considered the primary "alternative" context for learning. As Joseph explained:

> . . . I think we need to look at how we engage students in multiple contexts. . . . so we have a context of a classroom that we are engaging students in and that is the primary context that we work with. It doesn't work with all students and more and more students don't find that the context is really satisfactory for their learning, but we are finding it difficult to look at really changing the bricks and mortar context of our schooling. It is hard to suddenly go, "Let's go down the beach and do this environmental study down the beach" without a large amount of organisation and activities for the teachers so . . . it is easier . . . for a teacher to work within the context, the bricks and mortar class context, and just try and work really hard at trying to refine the best possible ways to engage students within that zone, when if they took 10 steps outside and sat down under a tree, they might suddenly just have a whole new thing happen with maybe the 4-5 kids that we never really engaged. Generally we always celebrate teachers that are doing that type of thing. It is the exception rather than the norm and so the 5 kids from learning support who did the environmental thing down at the creek, let's celebrate that sort of stuff, where that shouldn't be what we need to celebrate as a special thing. It should part of our ability to provide contexts of learning beyond the factory system of education that we have still got. (JS1.036)

Here Joseph suggested that students engage in a range of settings, the traditional classroom being one of the least likely sites. He recommended using a range of physical

contexts to maximise potential student engagement in academic as well as practical subjects, although he acknowledged that this requires more organisation from the teacher. Teachers indicate that working with multiple contexts for learning is important to move "beyond the factory system of education" currently operating.

5.7.4 Summary of Category 6 - *What* aspect

In this category, student engagement is owning and valuing their learning. Participants are aware that engaged students are intrinsically motivated and want independence in their learning. When given the independence, engaged students will design their own projects and curriculum or manipulate teacher-set tasks, going beyond requirements to maximise their own learning. This learning is driven by a desire to know instead of a goal orientation as in Category 5 (Seeing purpose). Any formal or informal setting can provide a context for student engagement; traditional classrooms are seen as the least likely venue for authentic learning.

5.8 Chapter summary

This chapter explores the *what* aspect of teacher conceptions of student engagement in learning. Six categories are used to illustrate the differences between teacher conceptions. Student engagement is seen as:

1. participating in classroom activities and following school rules

2. being interested in and enjoying participation in what happens at school

3. being motivated and confident in participation in what happens at school

4. being involved by thinking

5. purposefully learning to reach life goals

6. owning and valuing learning.

These categories are named Behaving, Enjoying, Being motivated, Thinking, Seeing purpose, and Owning. As categories hierarchically ascend, teacher awareness of aspects of student engagement broadens. These differences are illustrated by examining changes in the physical contexts and the nature of student engagement.

Teacher awareness develops through the categories in relation to how learning is connected to student engagement. In the first two categories, learning is implicit; if students are participating, they are considered to be learning. In these categories, students are engaging in what happens at school. Category 3 (Being motivated) is a transitional category. While student participation remains a strong focus, teachers begin to discuss learning explicitly as well. In Category 4 (Thinking), teachers express awareness that participation and learning are not always correlated. They acknowledged that engagement and learning are not always observable as they occur within the learner's mind. Categories 5 (Seeing purpose) and 6 (Owning) also espouse this perspective. In Category 5, students engage to achieve goals and in Category 6 they engage because of their intrinsic desire to learn.

As teacher awareness of student engagement in lower categories is centred on participation, not learning, these categories suggest that it may be more appropriate to refer to these conceptions as understandings of student engagement in schooling. While in the first three categories, the primary emphasis is on engaging students in what happens at school, later categories emphasise student engagement in learning. These data suggest that conceptualisations of student engagement found in the lower categories may not be as fruitful for generating student learning.

Another example of broadening teacher awareness is found by examining how the physical contexts seen as conducive to student engagement become more varied as categories ascend. While in Category 1, the focus is on the traditional classroom, Categories 2 and 3 examine a broader range of school facilities and activities as potential sites for student engagement. In Category 4, learning environments outside of the school are recognised, while Category 5 teachers become aware of the importance of workplaces and community sites as settings for student engagement and learning in practical subjects. In Category 6 it is acknowledged that all contexts, both formal and informal, are potential sites for student engagement, suggesting that contexts outside of traditional school settings are beneficial for engagement in both practical and academic learning.

This chapter illustrates the six *what* aspect categories and has begun to show how teacher awareness of important aspects of student engagement expands as categories ascend. These relationships will be further developed in Chapter 7 when the *what* and *how* aspects of the categories are discussed jointly. The variation present in participant understandings partially confirms that ". . . engagement is a widely overused, abused and misused word" (MR1.124) that has ". . . become another trendy 'in' word" (MR1.126). The next chapter examines the three categories related to the *how* aspect. These categories are illustrated with data and important changes in participant awareness between categories are discussed.

Chapter 6
The *how* aspect:
Teacher conceptions of how to facilitate student engagement

6.1 Introduction

The previous chapter illustrated categories related to the *what* aspect, explaining what teachers conceptualise student engagement as being. This chapter focuses on the *how* aspect, discussing teachers' conceptions of how student engagement is facilitated. According to the theoretical framework based on intentionality discussed in Chapter 3, the *how* aspect has two parts: the act and indirect object (Marton & Booth, 1997). The act includes teachers' conceptualisations of how to facilitate the direct object (student engagement); data describing acts are primarily narrative. The indirect object is made up of the intents that underpin these acts; these data are primarily analytical and reflective. While the act and indirect object are interrelated to comprise the *how* aspect, it is useful to analyse them separately so that finer distinctions between the two can be made evident for the reader. This chapter also uses the theoretical framework based on awareness introduced in Chapter 3. Both the act and indirect object will be further analysed, identifying their internal and external horizons.

While six categories are needed to capture the variation present within the *what* aspect of teacher conceptions of student engagement, data were able to be reduced to three categories when illustrating conceptual differences within the *how* aspect. Table 6.1 summarises these three categories. The relationships between *what* and *how* categories,

already shown in Figure 5.1 of Chapter 5, will be discussed further within the body of

this chapter and in Chapter 7.

Table 6.1 - The outcome space for the *how* aspect

How Aspect	Category 1 Delivery	Category 2 Modification	Category 3 Collaboration
Act	Teachers prescribe activities and discipline for students.	Teachers modify activities to cater for student interest, motivation, and ability.	Teachers and students collaborate to construct learning activities suited to student purposes.
Internal Horizon of the Act	Teachers simplify work to make it easily achievable and enforce participation and rules with consequences.	Teachers incorporate student interests into lessons and are flexible, encouraging, and enthusiastic.	Teachers and students communicate effectively, reflect on learning, and establish purpose for learning activities.
External Horizon of the Act	The context is the class as a whole. Teachers do not consider themselves involved in student engagement, which is seldom considered to be achievable.	The context is usually the class as a whole; occasional superficial changes are made to suit individuals. Student engagement is conditional.	Students as individuals are the context. Student engagement is considered achievable.
Indirect Object	Teachers intend to maintain order within the classroom and get students to participate.	Teachers intend to make activities achievable and interesting so students will participate and succeed.	Teachers intend to develop student thinking skills so they will learn.
Internal Horizon of the Indirect Object	Curriculum is fixed. Students are often perceived as lazy and undisciplined, threatening order.	Curriculum is able to be changed in small ways. Students are seen as having interests and capabilities that allow them to learn.	Curriculum is flexible. Teachers are learners. Students are seen as intelligent, possessing values and purposes. Relationships with students are based on empathy and respect.
External Horizon of the Indirect Object	The context is viewed as unrewarding and full of time constraints. Teachers feel they lack the consequences necessary to deter bad behaviour. Learning is considered an implicit goal of engagement.	The context encompasses students' outside lives. Modifying for all students individually is considered unrealistic and emotionally draining.	The context is paradoxical because working collaboratively is rewarding for teachers and students, but also leads to teacher exhaustion and burnout.

6.2 Category 1 of the *how* aspect: Delivering

In this category, teachers conceptualise that student engagement is facilitated when they prescribe activities and discipline for students. This act is underpinned by teacher intents of maintaining order and maximising student participation. This category appears aligned with understandings of engagement in Category 1 of the *what* aspect: student engagement is participating in classroom activities and following school rules. Participants appear to consider engagement and participation as synonymous, so these terms will be used interchangeably within this category.

6.2.1 The referential aspect: Act

In this category, teachers perceive that they can best facilitate student engagement by prescribing activities for students and disciplining those who are not behaving appropriately. Teachers primarily describe using a transmission model of teaching where students are given step-by-step instructions so participation is easily achievable. Students are expected to complete all activities given to them, regardless of the quality of the tasks. Discipline is used to "encourage" students to be on-task and to prevent anti-social behaviour.

A transmission model of teaching is often cited as the best way to deliver prescribed activities. For example, John explained:

> I think some teachers don't like to stray much past chalk and talk, especially in … maths. . . . Some [teachers] . . . think the kids should just sit there and learn. That's their approach. (JN1.111)

John suggested that many teachers prefer teacher-focused activities like "chalk and talk," thinking "kids should just sit there and learn." Student participation is taken for granted as something they "should just" do. Students are viewed as passive recipients of learning.

Teachers in this category focus on delivering set content in a structured way. For example, Betty explained that:

> . . . in the beginning of my lesson I will put up objectives on the board. And I will say, "This is what we're doing. This is what we're doing. This is what we're doing," so the boys can see directly, "Well, we have to get through all of that before we can leave." So it gives them a direction. (BT1.020)

Here, Betty described how her lessons are structured and delivered. Lessons are broken down into a series of content to be cover "before we can leave." By spelling out the lesson's objectives, students can see "what they have to get through" before the end of class. Participation is expected regardless of the objectives. Breaking content down into small steps is considered especially important for groups considered disengaged, in this case, the boys.

Teachers suggest that activities must be highly structured so students know exactly what they need to do to participate. For example, Jenny explained:

> It is a structural thing. . . . You establish all the expectations and instructions sort of step-by-step and you show models of what you want from them. You do all those things that sort of help them get in their mind exactly what they need to have. (JE1.018)

Students are told "exactly what they need to have" so they can create "what you want from them." By teaching in this way, students ". . . know where they are at and where they are going and what they need to do to get there. It is all sort of step-by-step spelled out to them" (JE1.036). These descriptions depict students as passive within the learning process.

Teachers also indicate that they must frequently enforce participation and prevent students from disrupting their peers. For example, Jenny commented, ". . . we are tied up a lot with getting kids to actually do their work and not interfere with others'

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learning" (JE1.192). She must get "kids to actually do their work," and make sure they do "not interfere with others'" learning to facilitate student engagement. Once again, students are not viewed as independent; their behaviour must be guided by teacher actions.

6.2.1.1 The structural aspect: Internal horizon of the act

Within this category, teachers are aware that students may not participate and behave appropriately; teachers suggest that they must enforce participation and punish bad behaviour using consequences meaningful to the student. Participants are also aware that activities must be easily achievable so all students can participate.

Within this category, teachers do not focus on students' individual needs. When differences between students are noted, they are generally broad distinctions between groups, not individuals. For example, Beth explained:

> . . . in a class where you have got a wide spread of abilities, you basically have to teach to the middle of the class and challenge those who are exceptionally bright by giving them extra tasks to do if they are not accepting of what the rest of the class is going to do. And for those kids who are a bit slower, then give them a little bit more time or give them structured tasks to do. (BH1.106)

In this passage, while Beth acknowledged that students have a "wide spread of abilities," she categorised pupils into three groups: the "bright," the "middle," and the "slower" students. Changes to suit these groups require alterations to the students' workloads, not the level of difficulty of the tasks. "Bright" kids should get "extra tasks" while "slow" kids get fewer so they have "a little bit more time" to accomplish their work.

Since most students within the class are being given the same work, tasks must often be simplified so all can participate. Teachers are aware that many students find literacy

activities difficult and they frequently discuss creating tasks that require little to no reading and writing. For example, Betty explained:

> . . . because there was no written work involved and it was hands on [the disengaged students engaged]. . . . They had to cut shapes out of cardboard. And they had to glue some glitter onto their shape. And then they had to design the necklace, so like use pipe cleaners to make a necklace. There was no actual written work or using pencils of any kind. (BT1.028, BT1.030)

She stressed that this student engagement probably occurred "because there was no written work involved" and they were not "using pencils." Disengaged students are perceived to respond well to activities that are "hands on" instead of literacy based.

Instead of activities based on reading and writing, teachers often describe tasks that use visual stimulus and discussion to engage students. Teachers use these strategies because:

> . . . kids find it's easy to be visual. . . . And easy to draw or colour things or decide on things like that. So if you sort of give them an activity like that to start with. Well it certainly, you know, they can certainly all do it; therefore, they all get into it. . . . None of them feel as though, "Oh no, I know this is not for me. I can't do this," so they all get involved. (JE1.054)

Here Jenny explained that because it's "easy to be visual" and "easy to draw or colour things," students "all get involved" and "none of them feel as though this is not for me." Because the work is "easy," teachers assume that all students can and will participate.

Teachers are also aware that students are more likely to participate when teachers enforce rules using clear expectations and firm consequences. For example, Jenny explained:

> You give them choices all the time with what they are doing and their expectations and the consequences. And they have to be real and they have to know that you carry through what you plan. . . . So they know where they are all the time; they are not left airy-fairy or anything. (JE1.028)

Here, when students misbehave, they are given explanations about how their "choices" lead to specific "consequences." Teachers must "carry through what they plan," so students "know where they are all the time." Consequences are teacher designed and executed.

Participants are aware that consequences can be used to motivate students to participate in class activities. For example, Jenny explained:

> I mean as far as consequences are concerned, that will motivate a lot more students than . . . even the feeling of success. A lot of kids are lazy. Teenagers, they don't want to be bothered doing things unless they really have to. So if they have to, they will. If they don't have to, they won't. (JE1.244)

Jenny suggested that consequences help students understand that "they really have to" take part in class activities and "if they [students] have to, they will." Students are considered to be more motivated to avoid punishment than to achieve success.

6.2.1.2 The structural aspect: External horizon of the act

Within this category, student engagement is primarily contextualised within whole-class instruction. Teachers try to engage groups of students instead of individuals, citing that they lack time to meet students' personal needs. They do not conceptualise themselves as being involved in student engagement and suggest that engagement is seldom achievable.

Whole-class instruction is seen as the primary context for student engagement, evident through constant discussion about engaging "the class." Teachers acknowledge that focusing on the class as a whole does not meet individual students' needs, but see no alternative given time constraints. For example, Betty said:

> I can monitor my class . . . but I have kids that slip through and I don't pick them up until late. That's probably because I've got a large class. I am

overworked. I don't have enough time to sit down and individually go over every single kid; I sort of have to do it as a whole. (BT1.258)

Because she is "overworked," she "doesn't have enough time to sit down and individually go over every single kid." Time constraints cause her to focus on the "whole" instead of the individual students and this causes some students requiring extra help to "slip through" without the assistance they need.

Time constraints also prevent teachers in this category from reflecting on their teaching. For example, Hope explained:

I find I don't have the time to really sit down and analyse [my teaching]. I'll go, "Oh, that didn't work. I won't do that again" and I'll sort of have a bit of an idea of what I think doesn't work. . . . but it's not a really . . . conscious [process]. I won't write it down or anything. A quick mental process, "Oh, that was hopeless. What a stupid thing. Oh, next time I'll have to, next time I'll do something different." That is about it. (H1.150)

While Hope expressed she was conscious that some teaching strategies were not working, she did not "sit down and analyse" them because she did not "have the time." It is perhaps because of this lack of reflection that teachers appear unaware within this category of why some of their approaches to teaching are not engaging students.

Student engagement is considered rare within this context. With ". . . the whole class . . . you can measure those things [moments of engagement] in minutes, certainly not in hours and not in lesson times" (WM1.026). For example, William explained:

. . . the teacher that says that they can always have students engaged in the classroom is a fraud. They are only kidding themselves or trying to kid somebody else; it doesn't happen. I am not saying that it can never happen for short periods of time, but it is the exception rather than the rule. (WM1.056)

Student engagement is considered seldom achievable when teachers focus on engaging the class as a whole. This type of engagement can be "measured in minutes" and is "the exception rather than the rule."

Teachers do not consider themselves involved in student engagement. They also sit within the context because while the decisions they make may affect student engagement, teachers aligned with this category seldom consider themselves to be directly involved. For example, Betty explained:

> . . . I have a drama classroom with five boys in it, mostly Indigenous Australians and they are very, very hard to engage in the class work that is happening. Over the last term that I had them, they were not engaged at all, only when their friends helped them become engaged in the assessment piece, but as me, myself as the teacher, I just didn't have any role in their engagement in the classroom. (BT1.002)

Betty suggested that her students' "friends helped them become engaged"; she "just didn't have any role in their engagement in the classroom." While she provided "class work" for the students, shaping the context of their engagement, it was their peers that were able to get them to participate in the assessment piece, not her. Teachers often indicate feeling uncomfortable about the power students exercise within the classroom despite teacher efforts to take charge.

6.2.2 The referential aspect: Indirect object

Within this category, the act of prescribing activities and discipline for students is underpinned by the teacher's primary intents of maintaining order within the classroom and facilitating student participation in teacher-set work. Teachers intend to teach students to be compliant and to get them to abide by social norms. For example, Jenny stated:

> . . . they [students] should know that it [complying] is the right thing to do. This is the way you conduct yourself. When you are out in the workforce, this is the expectation and you do conform, otherwise you lose your job. It is a way of behaving, isn't it? And in our society, we have got to behave appropriately or we don't get ahead . . . It is all very well to swear and carry on, but there is a time and place . . . so they need to know that. (JE1.198)

Teachers suggest that students "need to know" how to "behave appropriately" and "conform" because otherwise they will not be able to "get ahead." Within this category, getting students to conform to social norms is seen as a major outcome of classroom experiences.

To maintain order in classrooms, many teachers suggest that ". . . a quiet learning environment is really important" (JN1.119). Classroom procedures and behaviour guidelines are considered necessary as facilitating student engagement ". . . goes back to management as well . . . [including] behaviour procedures and things you do in a classroom to make sure that everyone can work together" (E1.014). Teachers intend to "make sure" students "can work well together" by having these "behavioural procedures" in place. Here, teachers' primary intent is to instruct students to follow social norms rather than to achieve academic outcomes.

6.2.2.1 The structural aspect: Internal horizon of the indirect object

Within the internal horizon are the teacher assumptions about curriculum and students that underpin their intents. Teachers are aware that some pupils can be lazy and undisciplined. These characteristics are not linked to demographic variables like those found in the internal horizon of Category 1 of the *what* aspect (Behaving); adolescents in general are seen as possessing these traits. Teachers also perceive that curriculum is unable to be changed.

The prescribed nature of the teaching described in the act of Category 1 (Delivery) stems from participants' perceptions that the curriculum is fixed. For example, when Beth was discussing the possibility of modifying curriculum, she stated, ". . . it

[modification] is a bit hard when we have really got sort of a curriculum to follow isn't it? You know, we have specific tasks that we have to do . . ." (BH1.104).

Modification is considered difficult because of the "specific tasks" and "curriculum" that must be followed. For example, Betty explained:

> . . . we can't [be flexible] because the curriculum has guidelines and the work program says you have got to have this and this and this and this done. If you don't have it done, well, I don't know what would happen because I have never done that before. (BT1.122)

Betty explained that work programs must be followed as prescribed, partially because of her fear of "what would happen" if she deviated from the curriculum. Here, teachers speak of encouraging students to be compliant; within the internal horizon of the indirect object, it becomes clear that in this category teachers see themselves as also needing to be compliant to those above them. It seems that teachers do not question this power structure and intend to teach students to accept authority like they as teachers do.

Even when fixed curriculum is not meeting student needs, teachers articulate that they must teach it anyway. For example, Hope explained:

> . . . there is some stuff that I think "Oh god, this is so boring. Do I have to teach it?" And I just teach it because I have to and I am not engaged in it so to speak. (H1.078)

Although even she is "not engaged" with the material because it is "so boring," she teaches it because she "has to." This is just another example of teachers accepting, unquestioned, orders coming from above.

Awareness of students also shapes teacher intents. Participants perceive that students can be lazy and undisciplined. For example, Caitlyn explained:

> I think there is the lazy aspect as well. Can do the work. Can probably do it with their eyes closed, but it is just "Nah . . . I'm not going to do it." (CA1.048)

Caitlyn suggested that students "can do the work," but choose not to out of laziness.

These assumptions appear to contribute to the negative attitudes teachers have about

disengaged students

Teachers also perceive that some students do not want to think. For example, Hope

stated:

> I don't think that they [students] want to do much thinking at all . . . life's easy.
> They just go out and have fun, do what they want. . . . It is like thinking is hard
> work for them. And it is not something that they particularly [want to do]. You
> know, like higher level thinking is something that they really struggle with and
> they just don't want to do it. (H1.024)

In the first half of this passage, Hope indicated that students do not want to think

primarily because they are lazy; "life's easy" and teenagers just "go out and have fun"

instead of doing "hard work." However, within the second half of the passage, she

expressed awareness that for some students, higher level thinking is something they

"struggle" to do, intimating that this difficulty might be one reason they "don't want to

do it." While teachers within this category primarily use student characteristics like

laziness to explain disengagement, they appear to have some awareness that other

factors may also influence student behaviour, although these are seldom focused on.

Teachers are also aware that some students are undisciplined. For example, Jenny said:

> . . . they don't seem to have the discipline now. They seem to buck or baulk any
> time we tell them to do something. They like the idea of questioning, "You
> know, we don't have to do that." "'You can't make me" type things. (JE1.217)

Jenny explained that modern students "buck or baulk" when asked to follow

instructions. "Questioning" authority is seen as a negative, in line with teachers' own

assumptions about the importance of maintaining hierarchical power structures. To

combat student "questioning," teachers utilise the consequences outlined within the

internal horizon of the act of this category.

Teachers are aware that students can threaten order in schools, citing examples of students undermining teacher authority. For example, Jenny described the following incident:

> . . . one student I found was lying on the road at school and I said, "You don't want to lie on the road like that because kids get around and spit which is very unhygienic and you are lying there." And so what did he do? He spat on the road and then licked it up, and he looked at me. I said, "Well, each to your own," but that is the type of behaviours we get with some students. . . . We are dealing with behaviours that are not what we are used to. . . . (JE1.200)

This example shows teacher discomfort when dealing with students who do not comply with authority. In this example, Jenny felt her authority was undermined and expressed frustration at having to deal "with behaviours that are not what she is used to." Within this category, teachers appear compliant to higher authorities and they seem to be unsure of what to do in situations where students question their authority.

6.2.2.2 The structural aspect: External horizon of the indirect object

The external horizon of the indirect object contains the environment where teacher intents for students are embedded. Frequently aspects of this context are portrayed as antagonistic to teacher intents. Teachers perceive that they lack access to consequences that will deter poor student behaviour. Participants put forward that they do not have sufficient time to complete their work and that students do not appreciate their efforts. Learning also sits within the external horizon as it is vague and implicit within this category; social outcomes appear prioritised within classrooms.

Teachers articulate that they lack the time and resources needed to successfully engage students. For example, Hope explained, ". . . we lack resources and we lack the time most importantly in order to be able to do it [engage students] really well" (H1.132).

Betty explained she is ". . . very pressed for time. I don't have enough time now just to do class stuff" (BT1.252).

While teachers acknowledge that they are not doing their job "really well" as they are "pressed for time," they appear to accept their situation and only suggest making minor changes to their teaching in the future. For example, Beth stated:

> Probably the way I use them [teaching resources] needs to be looked at more thoughtfully because by the time I've got through finding the resources and then trying to work out what to do with them, that's a very time consuming process for the first time you've taught a subject. After you've used them a few times, you can fiddle around and think, "Oh, I might do this and I might do that," but once again, it all boils down to how much time you've got. (BH1.192)

These "time constraints" prevent teachers from looking "more thoughtfully" at their "resources" and "what to do with them." This passage highlights how many teachers in this category appear to focus on the teaching resources themselves rather than the learning outcomes resources are designed to help students achieve.

Teachers also perceive that the consequences they can use to punish students are insufficient for deterring bad behaviour. For example, Jenny explained that:

> The consequences aren't there now compared with what they used to be. I mean, fair enough, we used to have the cane threatening, hanging over . . . If you have consequences like kids staying after school or whatever, something they don't like doing, then they will conform more than if the consequences are airy-fairy type consequences . . . the only things we can do now. I mean kids will look at being suspended. A lot of kids will look at that as a holiday. They don't care. They don't mind. They don't care if the record is there or not. To them, "Oh, I have only been suspended twice this year." To them it is nothing. Whereas once upon a time, getting that cane or whatever, not that I believe in that necessarily, but I'm just talking about a consequence that meant something to them then, well, it would stop them and make them think twice about doing something. . . . (JE1.194)

Teachers are aware that punishments like suspension do not deter students like the cane once did. Within teaching contexts, they suggest there must be consequences that "would stop them and make them think twice about doing something" in order to

protect teacher authority and get students to "conform more" to expectations. Once again, teachers appear to believe that authority, including their own, should not be questioned.

Participants express that students do not appreciate teacher efforts, making teachers' work environment unfulfilling. For example, Hope explained:

> One thing I've found really depressing that I've tried to do, I spent like a whole weekend planning one whiz bang fabulous lesson and it was a total disaster. . . . I think, "Why have I worked for so much of my time and they didn't even care, they didn't even appreciate it?" . . . And sometimes you think, "What, what went wrong? What was it? Was it because I was stressed? My expectations of them going, 'Oh wow, thanks Miss. That was just fabulous'?" You know, they should appreciate what I am doing. (H1.163, H1.165)

Even in this category, teachers do appear to seek some affirmation from students and are disappointed when students do not "even care." Hope explained that when students do not appreciate her effort, she thinks, "'Oh god,' you know, then I get depressed and think why am I bothering?" (H1.167). While teachers do not seek input from students into instructional design within this category, they still seek affirmation and want students to think that their teaching is "just fabulous."

Within this category student learning remains implicit. While the teacher actions described in the act are designed to get all students participating, teachers focus on facilitating participation not learning. For example, when asked what students learned when they were engaged in constructing "bling bling," Betty responded:

> I've got no idea (pause). If I had to think about what they learned, developing character, because they were developing jewellery to fit their gangster characters for their play. So even though we try to teach kids in drama that character comes from within the mind and it's a mental thing, developing a physical attribute, a physical prop can help kids to visualise their character. So on one level, I really, I hope anyway, that they learnt to look at their character more. Like, you know, develop their character. That's what I hope that they did learn. (BT1.034)

This passage illustrates how teachers in this category go about planning. Activities are designed to get students to participate. At times teachers have "no idea" what students may learn. They "hope" learning takes place instead of designing activities with specific outcomes in mind.

6.2.3 Summary of Category 1 - *How* aspect

In Category 1 of the *how* aspect (Delivering), teachers intend to generate student participation and maintain order by prescribing activities and discipline for students. Within the internal horizon of the act are the parts necessary for this delivery; activities must be easily achievable and consequences need to be used to keep students following rules and participating. Participants indicate that teaching and learning must usually occur in a whole-class context; time constraints prevent the individualisation of learning. Teachers form part of this context as participants suggest that they have an insubstantial role in student engagement. Student engagement is considered to be seldom achievable.

Within the indirect object are teacher intents of generating student participation and maintaining order; student participation is expected regardless of the task. The internal horizon includes teacher assumptions about the curriculum and students that inform these intents. Teachers are aware curriculum is primarily fixed and view students as lazy and undisciplined. The external horizon includes aspects of their teaching context that participants feel act on their intents. Teachers indicate that they are under-resourced, overworked, and under-appreciated, lacking access to the consequences necessary for maintaining order. Learning also sits within the external horizon as it is not the focus of teaching; it is implicit that students will learn if they participate in teacher-set activities.

Within this category, teachers seem to take for granted that hierarchical power structures exist and that these should not be questioned. Participants assume that they should accept authorities like curriculum syllabi and work programs in the same way students should comply with teacher instructions.

While in the next category teachers continue to acknowledge that curriculum guidelines should be followed, they indicate that these power relationships are less rigid and that teachers can make small changes to curriculum to suit student interests. Teachers continue to focus primarily on generating student participation, but also become aware that students must be able to succeed at what they are asked to do.

6.3 Category 2 of the *how* aspect: Modifying

In this category, participants conceptualise that student engagement is facilitated when teachers modify activities to cater for student interest, motivation, and ability. This act is underpinned by teacher intents towards making work achievable and interesting so students will participate. This category is aligned with the understandings of student engagement found in Categories 2, 3, and 4 of the *what* aspect: engagement is being interested in and enjoying participation in what happens at school; engagement is being motivated and confident in participation in what happens at school; and engagement is being involved by thinking. Within this category, participation is no longer assumed; work must be interesting for students to engage.

6.3.1 The referential aspect: Act

In this category, teachers conceptualise facilitating student engagement by modifying curriculum so it is interesting and achievable for students, although the focus remains on engaging the class as a whole instead of as individual students. Unlike the previous

category, here teachers are aware that some traditional teaching strategies do not engage students. For example, Emily explained:

> Like, if you are just throwing bits of paper at them and you are just kind of reading, or if it's just chalk and talk, that is not going to keep them engaged and keep them interested, so I think you have to have a range of things. (E1.044)

Teachers realise that methods frequently suggested in Category 1 (Delivering), like "chalk and talk," are "not going to keep them engaged." Student participation and engagement is no longer assumed; teachers must "keep them interested." Emily suggested that a "range" of strategies are needed to facilitate student engagement; however, this "range" is still selected without significant student input.

Within this category, teachers indicate that it is their job to find appropriate materials and get students interested in participating. For example, Lily explained:

> It is our job to jazz it up and to make them want to get engaged in it. It is not their job to just walk in here, well, it is to a certain degree, but it doesn't work that way. It's not their job to just walk in and go, "Yeah, I am going to participate" or "I am going to start thinking about this" or "I am going to put it into practice." (L1.018)

In this category, students are not expected to participate just because activities have been supplied to them like in Category 1 (Delivering). However, while teachers must "jazz it up," a "certain degree" of participation is still assumed. Teacher conceptions of potential student responses to the supplied curriculum also become broader; while students still "participate," they may also be "thinking" or "putting it into practice."

Teachers indicate that they must modify activities so they are accessible for all students. For example, Jack explained:

> Well it is about, you know, it's about participation . . . You may structure it [the task] for high level thinking for a top level group of students, but when you are working with a middle to lower group, you virtually have to break it down because they are going to be disengaged if they don't understand the task. . . . Some other people would argue that no, the harder it is, the more it makes them

work, but I think the harder it is, the quicker it is for students to say, "No, I can't understand this. I don't want to do this." And I keep going back to the book situation. The students were really struggling to read the book, but with the tape as a guide, they completed the book, whereas if I had left them . . . to their own devices, they probably would have got a quarter of the way through the book if they were lucky. So I think it is a matter of knowing the level of your students, knowing what you need to do to allow them to participate . . . (JK1.035)

Jack articulated that students disengage "if they don't understand," and suggested that work must be adjusted to suit the level of the group being taught "to allow them to participate." Unlike Category 1 (Delivering), where the workload is modified instead of the nature of the tasks to cater for different types of students, in this category teachers suggest that the structure of the work must change to suit student levels. For a "top level group of students," work is structured to encourage "high level thinking" while for the "middle to lower group," the teacher must "break it down." While "top" students are seen as capable of "high level thinking," most students are thought to be in need of teacher intervention and scaffolding; if these students are left "to their own devices," teachers perceive they will be unlikely to complete tasks successfully.

Teachers also suggest that success motivates students to continue participating. For example, Caitlyn explained, "I do try to show them yes, it is possible. You can do this" (CA1.058). However, within this category, students are not necessarily being helped to accomplish work that is challenging for them and appropriate for their cognitive stage, indicating that some of this success may be at a low level.

6.3.1.1 The structural aspect: Internal horizon of the act

Within this category, participants are aware that student interests must be incorporated into activities and that teachers must be flexible, encouraging, and enthusiastic. Teachers are cognisant that they must make some changes to activities to accommodate students' interests and abilities. For example, Beth explained that:

> . . . we have to find out what they are interested in for a start. Those kids, we have to know what their interests are outside of school . . . and see if we can work our lessons around their interests. (BH1.102)

Teachers indicate that they must be "finding out what they [students] are interested in" so they "can work lessons around their interests." While lessons are still delivered to the class as a whole, teachers cater to the perceived interests of the group, unlike the previous category where teachers seem generally unaware of student interests.

If students are not interested, teachers express willingness to change the activity. For example, Rosanne explained that:

> . . . sometimes you have the best plan and it's obviously not working. You stop it and digress and go with what is working. You've got to be flexible, I suppose is what I'm saying. (RO1.133)

If a lesson is not "not working," the teacher must "stop," "digress," and "go with what is working." Unlike Category 1 (Delivering), teachers indicate that they are prepared to be "flexible" and make changes so that lessons "work" for students.

Teachers also indicate they must be flexible with classroom management and discipline. While in the previous category teachers recommend taking a punitive stance towards students, in this category teachers are aware that exceptions should be made for certain types of pupils and situations. For example, Rosanne said, describing her English Communications class:

> . . . sometimes the rules in the classroom are not as strict as in other classes. Language, sometimes you're selectively deaf at times if it's not directed at you; you don't hear it. I'm probably a little bit more tolerant there on kids late to class because they're probably having a smoke down at the toilets. But you know, if you're going to teach those kids, if you're coming down heavy on them all the time . . . you've got to be a little bit more flexible I think. (RO1.068)

Because she wanted to "teach those kids," she felt that she could not always be "coming down heavy on them," and is "not as strict as in other classes." However, teachers

generally discuss using this level of flexibility when talking about classes of senior students, especially those in vocational education tracks taking subjects like English Communications. The amount of flexibility Rosanne described is seldom discussed in relation to younger students.

In addition to flexibility, teachers are aware that they must be enthusiastic. For example, John, discussing a class project, said:

> Because I felt enthusiastic about it, I guess I showed that too. Like, "This is great. You are doing really well. I'm really happy. I can't wait to see the final product." . . . Perhaps I reflected what they were feeling too. I was happy with the task and I was engaged myself and enjoying it. (JN1.188, JN1.020)

John felt he had "reflected what they were feeling" and was "enthusiastic" and "engaged." Within this category, teacher enthusiasm is thought to spark student interest in classroom tasks, enabling pupils to engage.

Participants are also aware that students must be made to feel positive about their participation and achievements. For example Jill explained that ". . . praise and things like that are extrinsic motivators for students. . . " (JL1.306). She continued saying:

> . . . you can reward a student in any sort of way, like whether it's congratulations or pulling them aside after class and saying, "You did a really, really good job today. I was really, really happy" or something like that. Just that positive reinforcement makes a world of difference. (JL1.308)

Teacher encouragement is thought to "make a world of difference" and is seen as boosting student self-confidence, motivating future participation. For example, Jill explained:

> If they've had a taste of success . . . they don't have to be the class clown anymore because they've seen success and have developed an air of confidence and it really shows through in their work. (JL1.078)

Teachers are aware that when student confidence improves, so does their work. Within this category, it is assumed that students who are misbehaving like "class clowns" are

doing so because they cannot achieve school success. This assumption shows a limited understanding of student motivation. In this category, teachers do not appear to be aware of student goals and purposes. Instead, participants seem to assume that students will align with school values and goals when it is possible for them to do so successfully.

6.3.1.2 The structural aspect: External horizon of the act

Within this category, the context of student engagement remains primarily whole-class instruction, although teachers become aware of certain individual needs and provide some flexibility and choice. Student engagement is considered conditional.

Teachers in this category suggest that whole-class instruction must be flexible. For example, Emily spoke about:

> . . . being flexible, being prepared with alternatives. So if you go into a class with a topic, planning an activity that you think is, you know, the bee's knees, but you get in there and the kids aren't interested or they are tired or something. Being able to say, "Well, okay. We have also got this. What about this?" And maybe changing the activities to keep them into what they are doing and to get the outcome that you want. (E1.012)

While Emily talked about being flexible and appealing to student interests, changes to activities are made to suit the interests of groups of students, not individuals. Plural nouns and pronouns are used throughout to describe the students, termed "kids," "them," and "they." Teachers appear willing to be flexible as long as they can get students to achieve the "outcome that they want"; students still do not have a meaningful say in what is being learned. However, within this category, teachers are aware that activities must be aligned with outcomes, unlike the more limited participant understandings found in Category 1 (Delivering).

Within this whole-class context, individuals are only catered for in small ways. For example, Ray explained:

> I think the relationship building with students and getting to know each student and that, I really try to do that, try to find out some personal interests . . . to get a point across. If you know a student has a particular interest in sport or music, or you know, riding motorbikes or something, then that is a way to get through to them as well. Use an example that relates to them rather than something that's just generic to everybody. So I suppose that's my strategy of trying to engage. (RY1.090)

Unlike Category 1 (Delivering), teachers in this category talk about forming relationships with the students. These relationships make up part of the context of student engagement. However, these interactions appear mainly superficial, based on teacher knowledge of student "personal interests." This knowledge is used to create personal examples when trying "to get a point across" and "get through to them" during lessons.

Within this category, student engagement is considered to be conditional. Participants indicate that engagement can occur as long as students are interested, motivated, and enjoying themselves. For example, Caitlyn, describing a game she played with a class said:

> . . . [it was] very difficult to get them [a group of boys] engaged, but once they have been and they have enjoyed themselves, they are normally the first to ask. They are the first ones there and today actually they were like, "Can we do this again?" "Yeah, sure." And a couple of them were the first on the floor to play the game. (CA1.036)

Once students have been "engaged," teachers suggest students are willing to participate in similar activities. Student engagement is considered more achievable than in Category 1 (Delivering) because teachers are aware that it can be maintained once interests are identified and catered for.

However, engagement is not considered achievable for all students at the same time and is thought to be outside of the teacher's control. For example, Joseph explained:

> . . . if we force a certain type of curriculum onto kids, obviously it is mass education. So by that definition you would have a percentage of engaged students and a percentage of disengaged students. (JS1.012)

While using a whole-class approach will result in "a percentage of engaged students," others will be "disengaged" as well. Engaging all students simultaneously for any sustained amount of time is considered impossible using the strategies described in this category.

6.3.2 The referential aspect: Indirect object

Within this category, the act of modifying activities to cater for student interests, motivation, and ability is underpinned by the teacher's primary intents of making work interesting and achievable so students will participate and succeed. Teachers intend to make activities suit student abilities. For example, William explained that "if you want to get kids on task, particularly year 8 level . . . you have got to make it doable" (WM1.018). While making work "doable" does not always mean it has to be simplified, in many cases teachers suggest that creating scaffolding or breaking down content is the easiest way to make it achievable for all students, especially for those in Years 8-10.

Teachers also intend for their students to experience success. Teachers are aware that students are more likely to participate if they think they can do well. For example, Rosanne put forward that:

> . . . you [the teacher] have the expectation that they will do it and they will succeed. And you don't let them talk you into the fact, "I can't do it, it's too hard." You take the other view that you can do it and you can modify the questions. Like the questions, I mean your VHA student will choose a very challenging question, whereas the student struggling for the Sound will have an easier question. (RO1.030)

Rosanne suggested that she must "have the expectation that they will to it" and "can succeed." She was willing to "modify the questions" so all can engage at their own level. In this case, "modifying" the question involves making it "easier." However, unlike Category 1 (Delivering), higher level students are allowed to create "challenging questions," showing that students are working at different levels.

6.3.2.1 The structural aspect: Internal horizon of the indirect object

Within the internal horizon are the teacher assumptions about curriculum and students that underpin their intents. Unlike the previous category, here teachers are aware of positive student characteristics. Students are assumed to have capabilities, even those who have been previously unsuccessful academically. While curriculum is still primarily viewed as fixed, teachers describe modifying it in small ways to suit students. Learning sits within this horizon as it is a stated outcome of teaching, but is not always the central goal of activities.

Participants are aware that many students disengage because they feel they cannot succeed in the classroom. For example, George explained, ". . . students are disengaged because they feel as though they can't succeed and that there's no point in trying if they can't succeed" (G 1.030). Unlike Category 1 (Delivering) where teachers accept that certain students are unable to engage, here teachers suggest that disengagement is related to a student's mindset and that it can be altered.

Teachers are aware that all students have abilities and skills that allow them to be engaged. For example, Jack explained:

> Quite often they are told that they can't do this; they can't do that. They are useless. But when you work on the opposite side of it and tell them that they can do [it] and when they start doing it and realise that they can do it. . . . the more they do, the better they get at it; eventually it does work. (JK1.017)

Jack argued that even though students are frequently told they are "useless" and "can't do this" because of previous failure at school, he believes that students "can do it," indicative of the stance teachers assume within this category. Teachers assume that if they convince students "they can do" schoolwork, students will begin to "do," increasing participation. As they "get better at it," it is assumed that students are learning.

Teachers are also aware that students possess knowledge. For example, Christine explained:

> . . . They're not given any respect for the knowledge that they've got. I mean some of these kids hold down really important jobs outside of the school, and yet they're regarded as nincompoops in a classroom who can't be allowed to make a decision for themselves, so they're not allowed to. I mean the manual arts kids complain about that all the time, "We're not allowed to do anything. We're only allowed to do this. We're only allowed to do that." So to me, their engagement is stolen because they want to do the subject. (CH1.096, CH1.098)

Christine recognised students' "knowledge," arguing that many teachers wrongfully treat them "as nincompoops in a classroom." She suggested students should be allowed to "make a decision for themselves," showing awareness of the "knowledge" students gain "outside of school," and their ability and desire to learn. This attitude is indicative of teachers within this category; teachers no longer expect student compliance like they do in Category 1 (Delivering) and instead are willing to be flexible because of their awareness that students have knowledge and skills gained outside of school.

While curriculum is considered more flexible than in the previous category, teachers still view it as primarily fixed. For example, Rosanne explained:

> I think personal choice is one thing but there's also the thing that as a school, you can't just go with doing exactly what the kids want to do all the time either. You've got to have some degree of skills etcetera that they have to achieve before they leave. (RO1.102)

Teachers articulate that the "skills" outlined in the curriculum are non-negotiable, meaning "you can't just go with doing exactly what the kids want to do." While small changes can be made to suit student interests and needs, curriculum limits "personal choice." However, while curriculum is still described as primarily fixed, it is viewed in a different way than in Category 1 (Delivery). In Category 1, curriculum is accepted without question; teachers suggested they needed to comply with all aspects dictated to them. Here, while teachers express that students must have "some degree of skills" when "they leave" school, they do not conceptualise curriculum in the same rigid way as the previous category.

6.3.2.2 The structural aspect: External horizon of the indirect object

The external horizon establishes the context where teacher intents sit. While teachers do not consider their environment to be as antagonistic as in the previous category, they still express that they lack time to do their job properly. Teachers articulate awareness that current school structures limit their ability to do more than superficial modifications to curriculum to suit student needs. They are also aware that their intents sit within a context including the students' lives outside of school.

While their teaching context is not considered to be as problematic as in Category 1 (Delivering), participants indicate difficulty modifying curriculum for all students. For example, Jack commented:

> It would be nice to modify your task sheet for every student, but reality is you can't. You'd like to sit down and do a lesson plan for every student, "Oh what I'd like to do with this student." Reality is you can't. And we keep getting told, being told you know, you work with the middle band and assist as you can with the rest. . . . Quite often it's just a case of "you can't help everyone"; you need to focus on the middle band. Try and stimulate the high and try and help the low. But you'll have to work on the middle band because they're the higher percentage of students you'll have in your care. (JK1.150)

Jack argued that "you can't" modify tasks for all students, although teachers must try to "stimulate the high and try and help the low." Unlike Category 1, teachers want to modify for all students, but this is considered unrealistic. Teachers indicate that they must focus on the "middle band" as this will meet the needs of the majority of students. As discussed previously in the internal horizon of the act, modifications to tasks are made to suit "high," "middle," and "low" level students unlike Category 1 where only workload was adjusted to match ability.

In this category, teachers become aware that context includes students' lives outside of school. For example, William stated:

> . . . It doesn't really matter whether they are 13 or 16 or 17 or whatever . . . If we go back to what is engagement, "the mind being occupied," well if it is already occupied with something else, it is pretty unlikely you are going to switch that one off and switch them onto something else. And of course with the pressures of society at the moment, particularly where adolescents are concerned, there is a whole lot to occupy their minds and we are battling against that constantly. (WM1.054)

William articulated frustration about how students' out of school lives affect their engagement and learning. This concern is expressed by many teachers who agree that when students are "occupied with something else" it is hard to get them involved in learning. Teachers realise that many aspects of students' lives are outside of their control.

While teachers speak more positively about the teaching context than they did in Category 1, teachers still struggle to successfully execute the parts of engagement present in the internal horizon. For example, Jill commented that being enthusiastic can be exhausting:

> . . . to the point where sometimes you feel emotionally numb because you've had to put on this face all day and it says, ". . . regardless of who you are and

what you are, I'm here to help you" and sometimes that's really emotionally draining being that, basically personifying positivity. (JL1.194)

Although being constantly positive, encouraging, and helpful is considered beneficial for students, it can cause teachers to feel "emotionally numb" because they are constantly trying to "help" students. While teachers gain some satisfaction from their work, it can be "emotionally draining."

However, while teachers express that supporting students at this level is tiring, they also suggest that it is enjoyable. When students do not require a high level of teacher direction and support, participants cite feeling "left out." For example, Jack explained:

> … you don't really have to teach them [high level students] I don't think; it's just a case of directing them. Because quite often they're focused, they're motivated. …I find they're probably sometimes harder to teach because with the other students you get involved with them and you help. You do this; you do that. Whereas with them, they're so directed, you feel sometimes left out because they're doing so well and they're doing it all and they're so engaged and everything. "Oh well, what am I going to do?" (JK1.089)

Jack explained that self-directed students are sometimes "harder to teach" because the teacher is no long heavily "involved with them." While constantly helping students leads teachers to feel "emotionally numb," when students do not require this level of support teachers cite feeling "left out" and unsure about what "to do" to support student learning. Teachers appear to enjoy "helping" students.

6.3.3 Summary of category 2 - *How* aspect

Within Category 2 of the *how* aspect, the act of modifying curriculum to cater for student interest, motivation, and ability is underpinned by the indirect object of generating student participation and success by making work achievable and interesting. Within the internal horizon of the act sits teacher awareness of student interests. Teachers acknowledge that these interests must be incorporated into activities and that teacher behaviour must be flexible, encouraging, and enthusiastic. A whole-class

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context remains the primary setting for student engagement within the external horizon. Although teachers personalise some topics and examples for individuals, engagement is considered to be conditional because student interests are too varied to be catered for successfully within whole-class instruction.

Within the indirect object are the teacher intents that work will be achievable and interesting so students will participate and succeed. In the internal horizon sits teacher awareness that students have capabilities and that curriculum can be changed in small ways to meet student needs. Teachers no longer feel they must follow set curriculum and work programs without question. Also, students are no longer expected to participate just because a teacher has supplied them with work and instructed them to complete it. Learning also sits primarily within this horizon as teachers express awareness that learning can and should be an outcome of participation. The external horizon or context is considered less antagonistic than in Category 1 (Delivering). While teachers speak of fatigue and time constraints restricting their ability to modify curriculum for all students, they also appear to gain satisfaction from helping students participate and achieve. Teachers are also aware that students' lives outside of school affect the teaching context.

In the next category, teachers become aware that students must be given significant input into both the mode and medium of learning to maximise their engagement. Teachers intend for students to learn. Participation in teacher-set activities is no longer seen as the best way to improve student outcomes.

6.4 Category 3 of the *how* aspect: Collaborating

In this category, participants conceptualise that student engagement is facilitated when teachers collaborate with students to create learning activities aligned with student purposes. This act is underpinned by intentions that students will internalise learning. Within this category, participants adhere primarily to the understandings of engagement put forward in Categories 5 and 6 of the *what* aspect; engagement is purposefully learning to reach life goals, and engagement is owning and valuing learning.

6.4.1 The referential aspect: Act

In this category, teachers conceptualise facilitating student engagement by collaborating with students to create programs of study aligned with student purposes. Teachers indicate that collaboration increases student ownership of learning and allows learning to align with student goals. For example, Mary explained that ". . . a large way of doing that [engaging students] is giving them a say in their learning. Saying what they want to do" (MR1.088). "Giving them a say in their learning" is different to the flexibility discussed in Category 2 (Modifying) as here students get to say "what they want to do," allowing them choose the focus of their learning.

In this category, teachers talk about allowing students to make important decisions in the classroom. For example, Diane explained:

> . . . you have to really be able to be flexible and let the lesson go. Where, if there was some kind of objective that you had in mind and the kids really didn't think that was important, then you really had to let that go. I mean sometimes you could sort of talk to them about what you thought and they might agree with you and go, "Yeah, that's great." But I think that keeping yourself flexible and open to those suggestions and ideas allows them to stay tuned and interested because they own what's going on. (D1.022)

If the students did not value the objectives Diane had set, she felt she had to "let that go" and remain "flexible and open" to student ideas. In this category, compliance takes

an inverse relationship to Category 1 (Delivering). Here teachers must "let the lesson go" when students have other ideas, willingly giving students control of the class.

When collaborating with students, different teacher behaviours are required than those described the previous categories. For example, Diane explained:

> . . . I think they [the students] were engaged because they were really interested in what we were doing and I found that every day I came to the classroom with them, I gave minimal instructions. They knew what they had to do and they just went ahead and started doing it. So really, my role in the classroom was a different one from what it normally was. I was sort of more helping them to get on with what they were doing rather than giving them step-by-step instructions all the way, so like they were really independent. (D1.002)

Instead of "giving them step-by-step instructions," she was "helping them to get on with what they were doing." Because students are setting the agenda, working in this way requires teachers to be ". . . thinking on your feet about what's going to happen next" (D1.014). This way of teaching is considered to be "different" from normal teaching practice as students instead of teachers direct the activity within the classroom.

Teachers are aware that they must be organised to teach in this way. For example, Diane said:

> . . . it sounds like in that sort of environment you don't need to be organised, like you just sort of have to come in, but it wasn't like that at all. . . . at the end of every lesson, I had to go away and madly scribble down cause I didn't have any time during the lesson. I just couldn't grab everything that we talked about. . . . (D1.022)

In this environment, teachers "need to be organised" because during lessons they are unable to "grab everything" that is discussed. Diane would "madly scribble down" notes after each lesson and then organise the resources needed for the next class. Participants perceive that teaching collaboratively is more time consuming and stressful than the ways described in the previous categories because teachers must constantly think on their feet.

6.4.1.1 The structural aspect: Internal horizon of the act

Within the internal horizon of this category, teachers are aware that engagement is

facilitated by student-teacher communication and joint reflection about classroom

learning. Together, teachers and students establish the purpose for learning so pupils

value outcomes and objectives. Unlike previous categories, teachers no longer talk

about the three "groups" of students, the high, the middle, and the low. Since students

are worked with individually, these groups no longer seem to exist within this category.

Participants are aware that students must see a purpose for their learning. For example,

Jack said teachers must:

> Give it [the task] relevance. If you can give the task you are doing relevance to
> the student and what they may do or how they can use it or where they can go
> with it, I think that helps because quite often students don't see the relevance of
> being here in school. "Oh, why are we doing this?" "Oh, this is a waste of time."
> Whereas if they can see some relevance to where they can take it or where it can
> take them, that helps a lot. (JK1.047)

Students must "see some relevance" to understand "where they can take it" or "where it

can take them." The wording of this statement implies that students can "take" what

they are learning somewhere. In this category students are viewed as active, not passive,

differing from understandings found in Category 1 (Delivering).

Teachers are aware that student-teacher communication is an important base for

collaboration and reflection. For example, Christine explained:

> You've got to be reflective. You've got to look at your pedagogy and say, "Well
> that didn't work very well." You've got to talk to the kids and say, "Why do you
> reckon this didn't work?" (CH1.116)

In this passage, Christine suggested that teachers must not only "be reflective" and

"look at their pedagogy," but also "talk to the kids." Unlike previous categories,

teachers acknowledge that they may be culpable for student disengagement. For example, Mary explained:

> . . . cultural change will be needed if teachers begin to honestly reflect on their pedagogy and its effectiveness. Because at the moment if we see a classroom where students aren't working, teachers see it as the students' problem and the students as the reason. They don't see it as their own. (MR1.158)

She expressed that many teachers blame students for their own disengagement, instead of seeing the problem "as their own" due to teacher "pedagogy and its effectiveness." The teacher attitude Mary described is evident within teacher conceptions in this study. For example, in Category 1 of both the *what* and *how* aspects (Behaving and Delivering), student qualities and attributes are used to explain why students are disengaged. There, teachers do not take responsibility for student engagement like they do within this category.

Teachers also suggest that giving students chances to reflect on their learning facilitates their engagement. For example, Jill explained that:

> . . . it [the drama activity] also gave them the opportunity to discuss. Because sometimes in drama, whenever you have a role play situation [you] have that sort of time at the end of the lesson where you sit down and say, "Well, what worked? Why do you think it worked?" All of those questioning techniques that sort of get them thinking about what they were doing. Those higher order thinking skills. "Well why was that possible?" And I think having that there also helps them to understand what they have learnt and how they've learnt it. (JL1.038)

Jill talked about how she used questioning to get students to "understand what they have learnt and how they've learnt it." This format is seen as providing opportunity for student thinking and input into lessons.

6.4.1.2 The structural aspect: External horizon of the act

The context, forming the external horizon in this category, is the individual student rather than the class as a whole. Teachers are aware that student engagement is achievable when they focus on individual pupils. For example, Joseph explained:

> It [a class excursion] would not have been successful if I would have said "I am going on an excursion and we are doing this." I don't think that would have been exciting because through their networking when we planned the trip, the trip became a bit broader. So instead of just going to see the Asia Pacific [Art Exhibition], it also became a cultural excursion. So they negotiated for us to eat dinner in a nice restaurant because they had never had the cultural experience of going to a formal restaurant. So we went to quite a good Brisbane restaurant, also a play at the QPAC theatre. We went there and did that, and also a science excursion, so there were a number of things that they built into that which accommodated for other students within the group, so everyone had certain needs met in the whole excursion, but it was all negotiated through them. . . . (JS1.014)

Within this excursion, individuals were catered for, ensuring that "everyone had certain needs met." Because Joseph "negotiated" with students and "built in" diverse activities that "accommodated for other students," all were able to engage. Within this category, teachers appear to think that all students can be engaged as long as individual needs are being met. Here groups of students are no longer seen as excluded from engagement.

6.4.2 The referential aspect: Indirect object

Within this category, the act of collaborating with students to create learning activities aligned with student purposes is underpinned by participants' main intent, student learning. Teachers intend to help students develop thinking skills so they can learn effectively. For example, Mary explained that education needs:

> . . . not so much restructuring, but rethinking how we teach or rethinking how we facilitate learning. I had this conversation with John Hutch about the quality teaching model he put up, the three cornerstones, and he's got quality teaching and I couldn't work out why it bothered me. But if we talk about quality teaching, then we assume that we're the teachers; we're the experts. But again, coming from my experiences at university, I'm much more interested now in getting quality learning happening. Rather than the teacher being the expert on everything, the teacher's the one who facilitates the learning of themselves and everyone else. (MR1.132)

Mary suggested that teachers should "facilitate" learning for "themselves and everyone else" and explained that teachers must "rethink how they teach." Within the model Mary described, teachers and students learn from each other; the teacher is no longer considered the expert. This view is in direct contrast to understandings found in Category 1 (Delivery), where teachers are viewed as an authority that students must accept without question. In this category, teachers become so concerned with "getting quality learning happening" that they are no longer concerned with issues of control within the classroom. They willingly relinquish their role as the "expert" or authority and work with students to jointly achieve objectives.

Imbedded within teacher desires for improving student learning are teacher intents of helping students develop critical thinking skills. For example, Jill stated, ". . . higher order thinking and things like that, isn't that our job? [laugh] To create thinkers? Not … [to] train monkeys but to create people that have that ability [thinking]" (JL1.238). Teachers articulate that they must help students develop "higher order thinking" skills instead of just getting students to participate like "trained monkeys." By developing "higher order thinking," students will "have the ability" to learn autonomously. Unlike Category 2 (Modifying), student independence is seen as the goal; teachers here no longer speak of feeling "left out" when students do not require their help.

6.4.2.1 The structural aspect: Internal horizon of the indirect object

The intent towards learning found in this category is primarily underpinned by positive assumptions about students; all are considered capable of learning. Teachers are aware that they are primarily facilitators, not instructors, and consider it important to treat students with empathy and respect.

In this category, all students are seen as potential learners with intellectual capabilities. For example, Joseph explained:

> We don't have to sit there and say, "No, just do it because it is right." Kids are a bit more savvy in that way and they are much more critical. . . . we are telling them, "Be at school" and all that sort of stuff, but they really need to choose it and own it themselves. Then it is not propaganda; it is not us vs. them. (JS1.042)

Students are described as "savvy" and "critical"; they will not do things just because an adult tells them "it is right." Unlike Category 1 (Delivery) where students are seen as needing to comply without question, here students are encouraged to be critical and make their own decisions.

Within this category, pupils are seen as wanting to learn. For example, Christine explained:

> I believe that kids want to learn and they're quite vocal about that really, but they want to learn. They don't want to learn under your conditions. They want to learn. They're prepared to learn under your conditions, but they want some say in the matter. (CH1.042)

While students "want to learn," "they want some say in the matter." Students are seen as having goals and motives, wanting responsibility and ownership for their learning, although they are prepared to "learn under teacher conditions." In this category, teachers are aware that many students do become compliant through their schooling and are "prepared" to follow teacher orders to achieve their own ends. However, this compliance is questioned and students are encouraged to make decisions for themselves.

Teachers also become aware in this category that students are capable of independent learning. For example, William explained:

> It is interesting that the current trend suggests that students have to have these higher order thinking skills and I agree completely. But it also assumes that unless you teach those things in school and unless we put all our time into getting these things going, they won't get them. Now, again there is a false assumption there. For generations, even though we can go and shoot holes all

through our education system, we've had some great thinkers. Some people that were very capable, not just some, lots of people that were very, very capable of all those higher level processes they were never taught in schools. (WM1.044)

William demonstrated awareness that students can be "great thinkers" despite problems with the education system. Students are seen as capable of developing their own thinking skills independent of teachers and schools. This remark also shows that teachers in this category are aware of problems inherent in the "education system"; however, these teachers have enough faith in students to believe that many can succeed in life and become "great thinkers" despite past and current problems with schools.

Teachers are also aware that students have their own goals and that these aspirations are not necessarily aligned with those promoted in schools. For example, Joseph explained:

> . . . I don't think it is about manipulating their choice or anything like that. It is saying, "Good, we want you to make a choice. Let's have a look at your choice. Let's have a look at how it fits in and we can accommodate [it]." And we are very flexible. We have done a lot to be flexible in the school subject choices, you know school based traineeships and all these type of opportunities and kids that choose those things do exceptionally well and that is because we can go through those discussions. Usually we have kids come to this crisis point where they are just failing everything and they're trying, and we come together and we try to talk about it and it is the only time anyone has sat down and said, "Well, why are you coming to school? What is it that you want out of this? Why do you truant? If you don't want to be here, let's talk about where you could be." . . . (JS1.042)

In this passage, Joseph indicated awareness that students have their own goals and aspirations and accepted that students will question institutional goals and objectives. He recommended discussing options with students, giving them input into the decisions affecting their lives. However, within this category, teachers acknowledge that schools as currently organised do not suit all students. While schools as organisations try to "be flexible" and give students "choices," teachers admit that there are students who still "don't want to be here" because schooling as it currently exists does not align with "choices" they have made relating to their values and future.

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Participants are also aware that teachers are learners and see students as possessing valuable knowledge. For example, Christine explained, ". . . in a computer room, they do it all. I don't do anything. I just ask, 'Oh, can you come and help me do this?'" (CH1.045). Teachers acknowledge that students are experts in some areas and elicit students' "help." Within this category, teachers talk about learning from students, once again showing disruption to the "normal" teacher-student power relationship described in Category 1 (Delivering).

When teachers collaborate with students, the ensuing relationships are based on empathy and understanding. Teachers appear much more in tune with student attitudes and perceptions towards school and learning than in previous categories. For example, Rosanne described how she thought her students "feel" about writing:

> . . . maybe they have a history of finding pen and paper threatening. A teacher friend of mine who wasn't good at English, he taught maths/science, he always used to dread English papers, an American. And he always phrased it as being attacked by a blank piece of paper, which I thought was a wonderful analogy and that's probably I think, the way I think the kids feel. They feel threatened by a blank piece that has to be filled and they don't really know how to do that. (RO1.139)

Because of the relationship Rosanne has with her students, she thinks about how they might feel "threatened" in English. Discussing reading, she explained, "It must be awful to go into most classes and not be really able to read or to understand what's happening in the room" (RO1.143). These passages show a level of understanding of students that is absent in previously categories.

Participants are also aware that mutual respect between students and teachers is necessary. For example, Ray explained:

> . . . I think that for me, I can't expect a student to respect me if I don't respect them. So it is no good me being really down on the student if I am not clear on why I am annoyed with them. It is not because I don't like the colour of their hair or something. I can't do that; I have to show respect for all students and I think from that they develop an understanding that it is a two-way process. So I think the relationship building I'm talking about is that the relationship between teacher and student is a two-way street, that if I am open to them as an individual and a person, then that is showing the respect for them which hopefully will build their self-esteem that they are worthwhile, those sorts of things. (RY1.044)

Ray articulated that it is important to "show respect for all students." Teachers must "build their self-esteem" and be "open to them as an individual." Here the relationship between teachers and students is a "two-way process" unlike previous categories where teachers considered themselves to be in a position of authority above students.

6.4.2.2 The structural aspect: External horizon of the indirect object

The context of the indirect object is considered by many teachers to be paradoxical. While collaborating with students is seen as very rewarding for both teachers and pupils, it is thought to lead to teacher exhaustion and burnout.

Teachers suggest that collaborating with students is extremely satisfying and achieves long term learning gains for students. For example, Mary explained:

> But in terms of getting rewards out of it [the project], it was a very rewarding time for those students. One of them came up to me. She's at uni now doing Japanese, and she came up to me last year and said, "Miss, I've still got my notebook if you want it." (MR1.020)

Mary suggested that students valued the collaborative learning experience they had in her class. Students keeping artefacts from the class years after finishing high school demonstrates that the class was "a very rewarding time for the students." Unlike Category 1 (Delivering) where teachers perceived that their efforts were unacknowledged, here teachers see results and feel satisfaction. For example, John explained:

> I like engagement; I really thrive off of it. I am bouncing off the walls after a lesson where every kid was engaged. (JN1.101)

John's statement indicates that teachers "thrive off" student engagement and feel intense satisfaction after a lesson where "every kid was engaged."

However, teachers also report fatigue, suggesting current school contexts do not lend themselves to this style of instruction. Successful projects are seldom considered replicable. For example, Diane explained:

> . . . I wouldn't say that like I wouldn't do it [teach collaboratively] again. It was a lot of fun, heaps of fun and I'd love to do it again, but it's the sort of thing you can't replicate year after year, because it was one of those "in the moment" things. It was a one-off and I don't think you could have [repeated it]. You couldn't invite those sorts of people along to do a panel discussion at a symposium year after year after year. It was just a particularly vital issue in the town at the time and it was something that the kids really wanted to do. The whole group was into it and we just went with that. (D1.016)

She described the projects as an "in the moment thing" and "one off." She could not replicate it because it was "a particularly vital issue in the town" and the students were united in their desire to learn about it. Teaching this way is viewed as impossible if individual student projects within a class are too dissimilar. Teachers that report doing collaborative projects with students indicate that they often require extra help from others at the school and in the community. As Mary explained, ". . . I couldn't have done this [the collaborative project] without the support of the literacy aid" (MR1.008).

Teachers spoke of the physical toll exacted from this style of teaching. For example, Diane explained that it was:

> . . . harder, much harder [than her normal way of teaching]. I had difficulty letting go of control of the classroom. I didn't have a problem with that necessarily. Well, maybe I did. I just found that because they were so keen and so enthusiastic, I wanted to give them free reign. I found that trying to bring it together was difficult, could be quite a difficult thing because quite often they were going off in too many directions. There was no kind of synthesis at the end, "Oh where are we going with all of this?" But I also found too because they

were so energetic and so keen, I was physically, emotionally, and mentally exhausted after every lesson. And I've told the kids this since then cause, you know, they're still at school. I say to them that I used to leave their classroom every day with a headache. I had a splitting headache every day I had them. I would get a headache because it was just, you know, just so draining teaching like that. (D1.016)

For Diane, teaching in this way created a series of issues for her. She "had difficulty letting go of control." Students were "going off in different directions" and this made it hard for her to provide synthesis at the end of lessons. Also, every day she left the class "physically, emotionally, and mentally exhausted" and "with a headache" because dealing with students so "energetic and keen" was tiring. Although students were united with a similar interest, they went off in "too many directions," making her job of managing their learning difficult. While teachers within this category indicate they want to give students control of their learning, relinquishing power is seen as difficult and teachers do not appear to be fully comfortable with this, evidenced by Diane's remark that "maybe she did" have a problem with turning over control of the class to students.

Jack echoed Diane's concerns about the stress teachers are put under when they try to meet students' individual needs. Jack explained:

> Now you can do that [be responsive to individual needs] if you've got enough time and if you've got enough patience and if you've got enough help, both physically and mentally. But it just depends on how quickly they want to burn you out. Because if they're just going to drive you and drive you and drive you and expect the unachievable, they're just going to burn you out. And teachers, you do become burned out and you do become tired . . . (JK1.146)

While Jack indicated willingness to help students throughout his interview, he acknowledged that being responsive to individual needs can lead to teacher burnout. Teachers are seen as needing lots of "help, both mentally and physically" to personalise education.

6.4.3 Summary of Category 3- *How* aspect

Within Category 3 of the *how* aspect, the act of collaborating with students to create curriculum is underpinned by teacher intents of facilitating student learning and developing students' critical thinking skills. Within the internal horizon of the act are the parts necessary for this collaboration. Teachers and students must communicate effectively, reflect on teaching and learning, and jointly establish purpose for class activities. Students as individuals are the context for this act. Engagement is considered achievable when students are worked with as individuals.

The indirect object comprises the teachers' primary intent, student learning. Teachers are aware that students are capable of learning and decision-making and that students must be treated with respect and empathy; these parts form the internal horizon. Students are seen as having their own goals and purposes that teachers should respect. The external horizon is considered paradoxical. While engaging students in this way leads to long term rewards for students, as well as teacher satisfaction, it simultaneously causes physical exhaustion and burnout for teachers.

6.5 Chapter summary

This chapter explores the *how* aspect of teacher conceptions of student engagement in learning. Three categories are used to illustrate the differences between teacher conceptions. Teachers consider the process of facilitating student engagement as:

1. prescribing activities and discipline for students so pupils participate and classroom order is maintained

2. modifying activities to cater for student interest, motivation, and ability so activities are interesting and achievable and pupils can participate and succeed

3. collaborating with students to jointly create curriculum suited to student purposes so pupils can develop the thinking skills needed to learn.

These categories are called Delivering, Modifying, and Collaborating. Each category was analysed using principles of intentionality to identify its act and indirect object (Marton & Booth, 1997). As categories ascend, teacher awareness of aspects of how to facilitate student engagement broadens. For example, within the act, student engagement is considered more achievable as categories ascend; teacher understandings of teacher-student power relationships also change across these categories. Within the indirect object, teacher intents towards student learning and their understandings of students become more complex through the categories.

Within the act of the *how* aspect, the perceived achievability of student engagement increases as categories ascend. In Category 1 (Delivering), student engagement is considered rarely achievable because students are seen as seldom engaging in the teacher-set activities described in the act. In Category 2 (Modifying), student engagement is thought to be conditional, occurring when small changes to curriculum are made to accommodate student interests and abilities. Within Category 3 (Collaborating), student engagement is considered achievable as teachers focus on students as individuals instead of the class as a whole. However, engaging students in this way is seen as difficult to sustain physically and emotionally for the teacher.

Participant awareness of teacher-student power relationships also develops as categories ascend. In Category 1, teachers see both themselves and students as needing to be compliant. Teachers must comply with curriculum and work programs, while students must acquiesce to teacher commands and school rules. Within this category, authority is not to be questioned. In Category 2, teachers become more aware of students as individuals and do not expect them to obey orders without question. Also, teachers

themselves become less compliant, discussing ways they can make small changes to curriculum to suit students. Finally, in Category 3, teachers and students are seen to have a power relationship almost inverse to that in Category 1. Here students often direct teacher actions within the classroom; teachers willingly give students this independence and responsibility. Compliance is no longer required or desired; students are encouraged to question authority and make their own decisions.

A further example of how awareness develops across categories can be found by examining the indirect object, focusing on teacher awareness of students. In Category 1, teachers are aware of negative aspects of students like laziness and lack of discipline, seeing students as threatening order. In Category 2, teachers become aware that students have some capabilities and interests that allow them to learn. Participant awareness expands in Category 3. Here, it is acknowledged that students can teach both themselves and their teachers important knowledge and skills. Students are seen as deserving respect and empathy.

Teacher awareness of student learning also becomes more complex as categories ascend. In Category 1, participation is the primary intent with learning remaining in the external horizon, seldom considered. In Category 2, teachers intend for student participation to lead to learning although explanations of how this occurs still lack explicitness. In Category 3, student learning becomes the teacher's primary intent.

This chapter has used data to illustrate the three categories related to the *how* aspect and has begun to show how teacher awareness of important aspects of student engagement expands as categories ascend. These relationships will be further explicated in the next

chapter. This final chapter will relate data from the *what* and *how* aspects of each

conception before outlining how this study has contributed to knowledge about student

engagement and the phenomenographic approach, suggesting areas for future research.

Chapter 7
Discussion and conclusions

7.1 Introduction

The aim of this study is to contribute to knowledge about student engagement in learning, specifically focusing on teacher conceptions of the concept. It uses a phenomenographic approach to investigate student engagement because a fresh way of looking at the concept is required. Without a new approach, researchers may end up simply adding further meanings to a concept already shown in Chapter 2 to have a wide array of incongruent understandings attached to it. The use of a phenomenographic approach allows new ideas about what counts as student engagement to emerge; these understandings are then related logically to other meanings found within the data, showing how ideas relate to each other. Phenomenography also shows with empirical data the variation in stakeholder conceptions. The findings of this study on teacher conceptions of student engagement in learning have implications for policy, teacher education, and future research.

This chapter builds on the previous chapters, making it useful at this point to review what each has contributed to the reporting of this study. In Chapter 1, the research problem and research question guiding the investigation are introduced, establishing the context for the study. In Chapter 2, a range of academic literature is reviewed to show the variation in ways student engagement is understood within current research. In the second half of this chapter, government reports and policy documents relating to student engagement are examined, showing the incongruent ways the concept is used within these documents.

Chapter 3 is used to explain why phenomenography is particularly suited to investigating the research question. Within this chapter, the phenomenographic understandings of *intentionality* and *awareness* that form the theoretical and analytical frameworks used in the study are presented. The secondary purpose of this study was introduced, justifying why it is necessary to investigate the utility of using such a complex framework for data analysis. Debates surrounding these frameworks are discussed prior to identifying how these are used in the study. The research design is presented in Chapter 4, including a demonstration of how each step of the process of data analysis was conducted in the study. The results of the empirical research conducted are reported in Chapters 5 and 6 where categories are illustrated with data.

This chapter begins by explaining how understandings of student engagement in learning have been furthered through the use of a phenomenographic approach. Next, results of the study are reviewed, relating *what* aspect categories to their corresponding *how* aspect categories. Major differences between categories are identified, showing how participant awareness develops as categories ascend. Key findings are then discussed along with their implications for policy, teacher education, and future research. The study's contributions to the phenomenographic approach then are explained. The chapter concludes with the conclusions, limitations, and areas for future research identified during the study.

7.2 Using phenomenography to get a fresh look at a contested concept

Student engagement is not a new concept. It has been discussed in academic literature since the late 1970s (Good & Beckerman, 1978; Grannis, 1978; Rosenshine & Berliner, 1978; Smyth, 1980). As the concept of student engagement has already been examined

through a variety of qualitative methods (Asher, 2005; Bousted & Ozturk, 2004; Brooks et al., 2003; Cothran & Ennis, 2000; Hufton et al., 2002; Newmann et al., 1992); quantitative methods (Ainley, 1993; Ashiabi, 2005; Finn & Voelkl, 1993; Miller et al., 1996; Roeser et al., 2002; Shernoff et al., 2003; Uekawa et al., 2001); and review papers (Fredricks et al., 2004; Smyth, 1980), it becomes difficult to make genuine contributions to understandings about this concept. Literature reviewed in Chapter 2 shows that educationists define student engagement in a wide range of incongruent ways, suggesting that contemporary research risks adding new ideas to an already overcrowded construct instead of bringing clarity or cohesion.

Phenomenography is useful for researching concepts like student engagement. It has already been used to investigate many contested concepts including information literacy (Bruce, 1996) and information systems (Cope, 2000, 2002a; Cope & Prosser, 2005). It is useful for studying these types of concepts as it allows researchers to show and map relationships between different understandings of a phenomenon. It exposes the full range of variation present and relates understandings together in logical and often hierarchical ways (Marton, 1981a, 1986).

Categories are differentiated and ordered by tracing how participant awareness expands (Marton, 1994a, 2000; Marton & Booth, 1997; Marton et al., 1993). The conceptual maps developed using phenomenographic studies allow researchers to "see through" confusing concepts by differentiating more complex ways of understanding from simpler ones. More complex conceptions are preferred as they demonstrate a wider awareness of the aspects of the phenomenon. These complex ways of understanding can then be promoted through education, government policy, and professional development

(Barrie, 2004; Booth & Anderberg, 2005; Prosser & Trigwell, 1997b; Trigwell et al., 2005).

As phenomenography is exploratory in nature, it also offers new ways of looking at student engagement (Marton, 1986; Walsh, 2000). Since it uses a second-order perspective, phenomenography differs from most research approaches as it encourages researchers to focus on participant descriptions and look at the phenomenon from their perspective (Marton, 1981a). Participants may offer fresh insight on a concept when allowed to speak about it using their own terms of reference. As phenomenographers are required to use participant language to develop categories, new parts of the phenomenon can become apparent, missed by studies focusing on replication.

In the following section, the contributions this study has made to knowledge about student engagement in learning are discussed. Within the first section, the *what* and *how* aspect categories are related together, matching understandings with the ways they are seen as facilitated. Next, major themes within the data are identified, illustrating how participant awareness develops across categories. The section finishes with a summary of the major contributions this study has made to understandings of student engagement.

7.3 The *what* and *how* aspects together: What this study says about teacher conceptions of student engagement

Two outcome spaces were produced in this study, one relating to the *what* aspect, showing participant understandings of student engagement, and the other describing the *how* aspect, illustrating ways participants conceptualise facilitating student engagement. However, these outcome spaces are related as conceptions contain both *what* and *how* aspects (Marton et al., 1993; Marton & Pang, 1999).

7.3.1 Aligning *what* and *how* aspects

Within this study, each *what* aspect is related to a *how* aspect, although these relationships are not exclusive and one to one (Marton et al., 1993). Although there are six *what* aspect categories, when data were recategorised to investigate the *how* aspect, these data reduced into three categories. The relationships between *what* and *how* categories are depicted in Figure 7.1. While this diagram does not explicitly show the relationship between the other conceptual parts (act, direct object, indirect object, internal horizon, and external horizons), these parts merely provide further description of the larger categories and are not necessary to compare beyond the micro level.
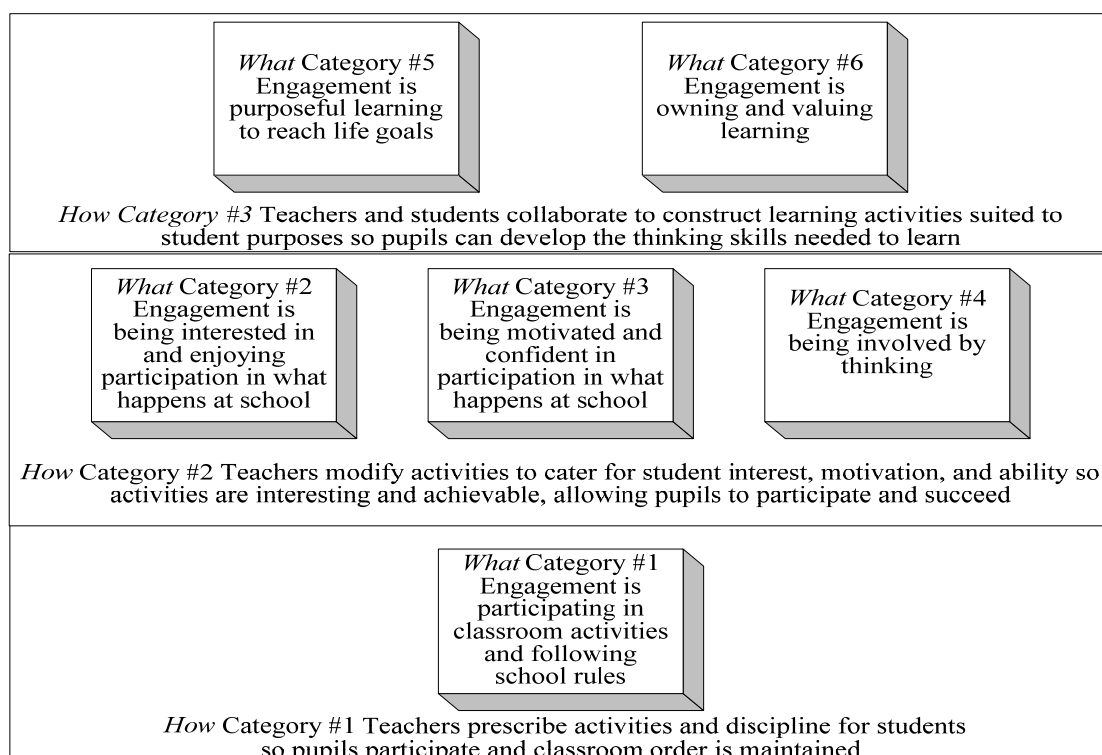

Figure 7.1 - Outcome space

Category 1 of the *what* aspect (Behaving) is aligned with Category 1 of the *how* aspect (Delivering). These categories are grouped together for several reasons. Both were developed from data originally placed in data pools relating to participation and obedience. Within these categories teachers are generally unaware of cognitive or

psychological aspects of student engagement, focusing instead on behavioural components like participation and acquiescence to rules. Participants do not appear to acknowledge individual students unless specific pupils disrupt the order within the classroom or deviate from the class agenda. Learning remains implicit in both categories and is not a primary goal of student engagement.

Categories 2 (Enjoying), 3 (Being motivated), and 4 (Thinking) of the *what* aspect are grouped with Category 2 of the *how* aspect (Modifying). Within this middle group of categories, participants are aware of primarily psychological aspects of student engagement like interest, belonging, and student self-esteem, although Category 4 (Thinking) introduces student cognition as important.

Participants are aware that tasks must be modified so they are interesting and appropriate for students. However, teachers still conceptualise teaching, curriculum, and school settings in primarily traditional ways, recommending only small and often superficial curriculum changes to suit student needs. Although in Category 4 of the *what* aspect (Thinking) participants become aware of cognitive engagement and question if behavioural engagement leads to learning, the category remains aligned with Category 2 of the *how* aspect (Modifying) as participants still recommend that teachers should control what modifications are made. While learning becomes a more explicit goal in these middle categories, it is facilitated primarily through traditional means.

Categories 5 (Seeing purpose) and 6 (Owning) of the *what* aspect align with Category 3 of the *how* aspect (Collaborating). Within these categories, participants become aware of cognitive aspects of engagement. While in Category 5 participants are aware that

students can be cognitively engaged in workplace learning, in Category 6 teachers acknowledge that all students, even those presently engaged in academic work, can be further engaged if given ownership of learning. Participants are aware that pupils are capable of learning and student learning becomes the explicit intent of their conceptualised acts. Teachers use alternative ways of facilitating student learning through community and workplace settings, recommending flexible delivery of curriculum to maximise opportunities for student collaboration and input.

7.3.2 Discussion of results

As the categories discussed in the previous section ascend, teachers become aware of behavioural, then psychological, and finally cognitive aspects of engagement. These data further support that cognitive, psychological, and behavioural types of engagement have a hierarchical relationship as indicated by some research literature (Irvin, 2006; Nystrand & Gamoran, 1991; Woodward & Munns, 2003). However, data within this study do more than just confirm existing frameworks. Within the data, it is useful to examine how awareness of learning, students, school structures, and the achievability of student engagement change across categories. These differences have implications for education policy, teacher education, and future research.

7.3.2.1 Awareness of student learning

Data from this study suggest that not all conceptions of student engagement are focused on engagement in learning. Some appear to centre instead on engaging students in schooling. For example, in Category 1 of both *what* and *how* aspects (Behaving and Delivering), student participation in school activities and procedures seems to be the focus of teacher understandings, actions, and intents. In these categories teachers assume that ". . . if you are engaged, you are learning, subconsciously you are learning, whether you are aware of it or not" (BT1.176). As learning is considered implicit,

learning outcomes are not a direct focus of all activities designed to "engage" students, evidenced through examples like Betty's "bling bling" activity where she had "no idea" of the intended learning outcomes (BT1.034).

These categories suggest that behavioural engagement may have a haphazard and often implicit relationship with learning, contributing to the body of literature questioning the assumed correlation between participation and learning (Kuh, 2003; Lankshear & Knobel, 2005; Linnenbrink & Pintrich, 2003; Pope, 2001). While student learning begins to enter participant awareness in Categories 2 (Enjoying) and 3 (Being motivated) of the *what* aspect and Category 2 of the *how* aspect (Collaborating), the focus in these categories remains primarily on getting students to participate in school and classroom activities. These types of student engagement may be considered engagement in schooling instead of in learning.

As categories ascend, participants become more aware of the importance of student learning. Student learning becomes an explicit focus in final three categories of the *what* aspect and Category 3 of the *how* aspect (Collaborating). These categories centre on engagement in learning, not schooling. These later categories are seen as being ". . . more complex and powerful than the others" (Bruce 1996, Chapter 7, p. 5) as they represent a wider awareness of the parts that make up student engagement and a deeper understanding of the importance of student learning.

7.3.2.2 Awareness of students

Data from this study indicate that conceptions of student engagement may be related to teachers' awareness of their pupils. For example, teachers aligned with understandings of engagement found in Category 1 of the *what* and *how* aspects (Behaving and

Delivering) appear primarily aware of negative attributes of individual students. Personal qualities are only attended to when students separate themselves from the whole by disrupting the order of the classroom or resisting participation. Teachers appear to want student compliance. Students do not seem to be encouraged to think critically about rules and teacher instructions. While in the middle categories participants appear more aware of positive individual student attributes, they still are unconscious of students' need for ownership and they maintain a primarily whole-class focus.

It is only as awareness broadens in Categories 4 (Thinking), 5 (Seeing purpose), and 6 (Owning) of the *what* aspect and Category 3 of the *how* aspect (Collaborating) that teachers become aware that students are capable of independent thought and learning. Here, teachers appear willing to give students more substantive choices within the classroom, except in Category 4 of the *what* aspect where teachers continue to try to cater for student cognitive levels without significant pupil input. Students are encouraged to think critically and creatively even when their ideas may not align with teacher and school prerogatives. These differences suggest that the way teachers view students may be associated with how they conceptualise and facilitate student engagement. As the highest categories indicate that students must have input into their learning in order to engage, the ways of engaging students described in earlier categories may be limiting opportunities for student engagement in learning.

Within Category 6 of the *what* aspect (Owning), teachers no longer discuss students in binary engaged/disengaged terms. Instead, teachers become aware that even "engaged" students can become more engaged because "owning the learning and taking from it the

things that they want and see that they need, that is a higher level" of engagement (JS1.032). Increasing the engagement of students who are already participating and most likely learning appears to be the purpose of Category 6 engagement.

7.3.2.3 Awareness of teaching styles and class structures

As categories ascend, teachers become aware of different ways classes can be structured and teaching can be organised. Within Category 1 of both *what* and *how* aspects (Behaving and Delivering), teaching is conceptualised as taking place through a process of transmission occurring within traditional classroom settings. Curriculum is seen as fixed and inflexible. While curriculum and potential sites for student engagement are viewed as more flexible and varied in the middle categories, teachers still acknowledge that what they do within the classroom is limited by perceived curricular and structural boundaries, meaning they "can't just go with doing exactly what the kids want to do all the time" (RO1.102). It is only in Categories 5 (Seeing purpose) and 6 (Owning) of the *what* aspect and Category 3 of the *how* aspect (Collaborating) that teachers conceptualise allowing students choice in both mode and content of learning.

Participants consider collaborating with students in the ways described in Category 6 of the *what* aspect (Owning) and Category 3 of the *how* aspect (Collaborating) as problematic. While collaborating with students is viewed as rewarding for both teachers and pupils, the teacher-participants also spoke simultaneously of how difficult it is to maintain such an approach. For example, one teacher spoke of having "difficulty letting go of control of the classroom," describing how she would "get headaches" (D1.016). Teachers spoke about it being "draining teaching like that" (D1.016). Teachers find that in collaborative projects, their "role in the classroom is a different one from what it normally is" (D1.002) and working within this role produces a new set of challenges.

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There is no longer "synthesis at the end" of lessons. The rules of schooling are disrupted as the teacher is no longer "the expert on everything" (MR1.132).

Data suggest that teachers get "headaches" when teaching this way partially because of internal conflict over how they should be instructing students. They often admit to insecurity about "letting go of the classroom" (D1.016). This insecurity is not surprising considering teachers are working in an environment where they perceive that administrators "expect to see rows of bums on seats" (JS1.054). As some Queensland policies (Department of Education and the Arts, 2006; Education Queensland, 2002a, 2002b, 2003d) push for increased accountability through traditional assessment and standardised tests, it remains necessary for prescribed content to be covered in schools. It appears difficult at times for teachers to reconcile the differences between following the mandated standards and facilitating learning suited to students' purposes.

Data also indicate that the stress of dealing with students as individuals may cause teacher "headaches." Teachers speak of the difficultly of simultaneously holding the ideas of multiple individuals within their heads, constantly having to be "thinking on their feet" (D1.014) because students are "going off in too many directions" (D1.016). Teachers feel unable to "grab everything that was talked about" in classes taught in this way (D1.022). Participants report being "physically, emotionally, and mentally exhausted after every lesson" when collaborating with students (D1.016) and indicate that this is not a sustainable way of engaging pupils within schools as currently organised.

7.3.2.4 Awareness of the achievability of student engagement

While teachers note difficulties in facilitating student engagement within the external horizon of the indirect object in all *how* categories, engagement is considered more achievable as categories ascend. In Category 1 of the *how* aspect (Delivering), engagement is seen as seldom achievable because of negative student qualities and the inflexibility of curriculum and school structures. Teachers still articulate the desire to engage students but appear unaware of how to go about navigating the obstacles that impede their efforts. It is perhaps for this reason that much about students and schooling is essentialised within this category. If student and institutional qualities are unchanging, the teacher no longer has to accept the ownership of student disengagement.

In Category 2 of the *how* aspect (Modifying), teachers acknowledge that student engagement is conditional. Teachers perceive that student engagement increases as pupils are given more choice and flexibility. Student engagement is achievable as long as teacher-set tasks are aligned with student interests, are at an appropriate level of difficulty, and are sufficiently motivating. However, teachers express that modifying activities requires a lot of guesswork; little student consultation takes place. Teacher predictions of student interests are considered seldom accurate, making engagement sometimes, but not often, achievable.

It is only within Category 3 of the *how* aspect (Collaborating) that student engagement is considered often achievable. Here, students are individually consulted about learning needs and collaborate with teachers to create appropriate plans of study. However, this category contains a paradox because while teachers see this way of teaching as

rewarding for both teachers and students, it is not considered sustainable or practical within schools as currently organised. Within the external horizon of the act, teachers establish boundaries for when collaborative strategies can be used. These strategies can only be used with "certain classes" of student (D1.020) or when "additional support" is given (MR1.008). This way of teaching is not considered to be a viable way for enacting everyday student engagement within the classroom.

7.3.3 Implications of the empirical results

The findings of this study have implications for teacher education, educational policy, and future research. This study shows that there cannot be any "assumed" shared knowledge about student engagement among academics, policy makers, or teachers. The variation present within literature reviewed and empirical data examined shows the diverse range of meanings attached to the concept. As shared meaning cannot be assumed, the concept of student engagement must be explicitly defined within academic research and government documents to avoid misunderstandings and misinterpretations. Internal consistency is needed between documents from the same government agencies to prevent further discrepancies over the meaning of the concept.

Also, data analysis suggests that not all teachers are looking for student learning to increase as a result of their engagement. For example, in Category 1 of both *what* and *how* aspects (Behaving and Delivering), it appears that engagement is about student behaviour, not learning. A distinction between student engagement in schooling and their engagement in learning is needed to differentiate clearly between an orientation towards participation and one focused on learning. Some government documents also articulate goals primarily relating to student retention, attendance, and behaviour (Education Queensland, 2003c; Ministerial Council on Education, Employment,

Training, and Youth Affairs, 2000a), indicating a direct focus on engaging students in schooling. Professional development programs that expand teacher awareness about student engagement may help practitioners currently trying to engage students in schooling to focus on engaging them in learning instead.

Some participants in the study also comment on the positive effects of being engaged themselves in their teaching. In Category 6 of the *what* aspect (Owning) and its corresponding *how* category (Collaborating), teachers report that they are so engaged with the class activities themselves that they find the experience very satisfying. They explain that they "like engagement" and are "bouncing off the walls after a lesson where every kid was engaged" (JN1.101). Statements like this stand in direct contrast with teachers aligned with lower categories that cite feeling unfulfilled and unappreciated (H1.163, H1.165). The potential benefits of "teacher engagement" have been put forward by other authors (Louis & Smith, 1992), but are often ignored in engagement literature.

Category 6 of the *what* aspect suggests that teachers are aware that many students can be more engaged than they currently are in today's schools. While most policy documents speak in binary oppositions, talking about how disengaged students can be re-engaged in learning, these data suggest that deepening the student engagement of those adequately engaged in school is also a goal worth pursuing. Pre-service and current teachers should be made aware of the importance of the quality, not just the quantity, of student engagement for this to become an explicit focus within teaching.

Finally, Category 6 of the *what* aspect (Owning) and Category 3 (Collaborating), its corresponding *how* aspect category, have implications for educational policy as they both suggest structural changes are needed to the way learning is conducted at school. While current ETRF reforms (Queensland Government, 2002b) place students in learning pathways outside of schools, facilitating student engagement as conceptualised in Category 5 (Seeing purpose), data in Category 6 indicate that all learning at schools may need restructuring, not just workplace learning, if students are to get maximum opportunities for engagement. Teachers are aware that working collaboratively with students in the ways described in Category 3 of the *how* aspect are unsustainable physically and emotionally because of the way learning is currently organised at schools. While pedagogical changes are advocated for in some documents (Education Queensland, 2000c, 2003d), few resources are offered to facilitate proposed changes and without support, pedagogical changes cannot be expected to occur in ways that will meaningfully impact student engagement in learning (Matters, 2005).

While current policies suggest changes are needed to suit individual needs, these changes are seen as accomplished within existing structures. However, some participants in this study explain that student-driven collaborative projects can seldom be implemented in schools as currently organised (D1.016, MR1.008, JK1.146). Educationists have long noted that personalising learning within a traditional school structure is paradoxical. Revisiting Smyth's (1980) words:

> On one hand, they [teachers] are urged to follow a set of teaching procedures designed to attain high levels of pupil engagement by concentrating upon whole class settings, while at the same time pursuing a path aimed at maximizing the meaningfulness of learned content to pupils by having them work in individualized settings. (p. 239)

Smyth recommends an ". . . eclectic approach of individual seatwork, small groups, and whole class [instruction]" (p. 239). His attempt to "compromise" is indicative of the way most policies operate. It appears that the paradox he describes between "whole class settings" and "individualised settings" in 1980 remains unresolved.

Often, ways of facilitating student engagement like those conceptualised in Category 2 of the *how* aspect (Modifying) are seen as middle ground. For example, in this study, most participant data appear to fit primarily with this category. While students are given some opportunities for choice, teaching in this way does not require restructuring or significantly changing the status quo of how teaching and learning are conducted at schools. Teachers appear to adopt this position although they realise that "it is mass education" and "by that definition you would have a percentage of engaged students and a percentage of disengaged students" (JS1.012), indicating the need for investigation into ways that "mass education" can be better tailored towards the needs of all students.

This study has also made contributions to understandings of the phenomenographic research approach. The next section will explore these.

7.4 Contributions to phenomenography

While the primary aim of this study is to contribute to knowledge about student engagement, it has also contributed to the phenomenographic approach in several ways. The secondary aim of this study, to investigate the utility of using frameworks based on awareness and intentionality simultaneously, is discussed primarily in the next section where its limitations are examined. However, this study has also made a significant contribution towards clarifying aspects of the two theoretical and analytical frameworks used in the study.

While the majority of phenomenographic studies look at conceptions holistically, many are now using theoretical frameworks that allow conceptions' parts to be identified and further analysed (Bruce et al., 2004; Cope, 2002b; McKenzie, 2003). These frameworks, based on intentionality and awareness (described in Chapter 3), are often used as they provide a systematic way of examining the parts that make up participant conceptions. Using a theoretical framework based on understandings of awareness allows researchers to examine the parts of the conception and the contexts in which it can exist. A framework based on understandings of intentionality lets researchers differentiate the phenomenon's meaning from the ways people conceptualise facilitating each particular meaning.

While many studies use one of these frameworks, few use aspects of both simultaneously (Cope, 2000; Marton et al., 1993; McKenzie, 2003). This study utilises both and explicates the process undertaken, allowing other researchers contemplating using these frameworks to see how this type of analysis can be conducted. Also, this study reports data differently from other research projects. Although studies often present all conceptual parts together during analysis (Marton et al., 1993; McKenzie, 2003), within this study, the *what* and *how* aspects are separated into different chapters; sub-sections are used for illustrating each conceptual part. Presenting data in this way allows readers to identify each conceptual part and make clear comparisons between them.

This study also contributes to the phenomenographic approach by problematising the way conceptual parts are used. Previous phenomenographic work has not identified the

variation in meanings given to conceptual parts like the *what* and *how* aspects and the internal and external horizons. The analysis completed as part of this study identifies the incongruent ways works by Marton and colleagues (Marton, 1988a, 1994a, 1996, 2000; Marton & Booth, 1997) have been interpreted. It also points out inconsistencies in the wordings of definitions in foundational texts (Marton, 1988a, 1996; Marton & Booth, 1997), which may have led to the current range of meanings present in phenomenographic work.

By showing the range of meanings attached to key phenomenographic concepts, this study problematises the taken for granted way many studies use these conceptual parts. The analysis conducted in Chapter 3 shows that researchers must acknowledge the range of possible ways parts are interpreted and explain why the definitions they select are appropriate for the phenomenon under study. While this study is aligned with particular definitions of conceptual parts, these are not considered to be the only acceptable ways of describing these parts; others may be suitable for different phenomena.

This study has contributed to the phenomenographic approach by mapping the varying understandings of the two frameworks used in the study. It also illustrates one way analysis can be conducted using these frameworks. By explicating the ways conceptual parts have been used in the past, it alerts future researchers to the varying ways these parts are understood. However, another major contribution this study has made to phenomenography is found in the following section where the limitations of using this complex framework are explicitly discussed following an explanation of the conclusions of the study.

7.5 Study conclusions, limitations, and suggestions for further research

This final section explains the conclusions reached in this study, identifies its limitations, and gives suggestions for future research. It begins by explaining what this study establishes about the concept of student engagement. Subsequently, the limitations of using a phenomenographic approach are discussed, both generally and also specifically within the context of this study. The section ends by suggesting areas for further research in light of the limitations and conclusions of this study.

7.5.1 Conclusions about student engagement

This study has contributed to understandings of student engagement as it has identified the incongruent ways the word "engagement" is currently used by educationists. This study demonstrates that there is significant variation in how teachers understand this concept, something seldom acknowledged in research literature. This variation may affect the way teachers interpret educational policy relating to student engagement, making it important that the concept is defined explicitly in government documents. Reviewing academic literature highlights the need for educators to focus more on cognitive and psychological aspects of student engagement rather than behavioural ones. This change must occur if there is to be a focus on engaging students in learning instead of schooling.

Data also indicate that teachers conceive that it is seldom possible to facilitate the most complex understandings of student engagement described in this study because of current school organisation. Collaborating with students as individuals is suggested as the only way of engaging every student for prolonged periods of time. Some teachers appear to accept that most of their students will be disengaged in some, if not all,

educational activities. If educationists are committed to ensuring that every student is engaged in learning when attending school, serious inquiry is required into alternative ways of structuring learning that allow students significant input without the negative effects on teachers that participants describe in this study.

Meaningful collaboration also requires teachers to know their students in more than just superficial ways. If teachers are to help students link learning to personal goals and purposes, they must really know the students within their care so they can provide the individualised support needed for high quality engagement. Current student loads, especially in secondary education, may preclude teachers from forming this kind of relationship with every student.

The research conducted in this study suggests that at present "engagement is a widely overused, abused and misused word" that has "become another trendy 'in' word" (MR1.124, 1.126). Until the term student engagement can lose this status, it will fail to be taken seriously by many educationists. While this study contributed to explicating the variation present in understandings within the field, as phenomenography was used as the research approach there are limitations to what this study can be used to say about student engagement. These limitations will be discussed in the subsequent section.

7.5.2 Limitations of this study

While phenomenography has been a useful approach for achieving the research aim set out in this study, its limitations must be acknowledged. While conducting the empirical component of this study, using such a complex theoretical framework became problematic. There are also some more general limitations of phenomenographic

research that must be revisited to explain what these data can and cannot be used to say about student engagement.

During this study, it became apparent that there are problems associated with using a framework as complex as the one put forward by Marton and Booth (1997) that combines principles of intentionality and awareness. While each conceptual part (*what* aspect, *how* aspect, act, indirect object, direct object, internal horizon, and external horizon) refers to a unique aspect of a conception and can be identified within a set of data, making it clear that these theoretical parts do exist, there are impracticalities associated with using this framework for most phenomenographic studies.

First, as a researcher it is difficult to design questions that do not "fix" the meaning of one or more of these conceptual parts as so many variables are present. Within this study, as student engagement was specified as the object of discussion, the direct object remained unchanged throughout categories. However, if the concept of student engagement had not been introduced with some specificity, participants could have easily misunderstood questions and talked about engagement within contexts unrelated to education. It is very difficult to successfully establish shared understanding between a researcher and participant without clear points of reference within the interview, but these points of reference may limit the amount of variation possible within certain conceptual parts.

Second, reporting results is difficult when using this complex framework. In existing research using this framework, all conceptual parts are usually identified and analysed within the same section (Marton et al. 1993, McKenzie 2003). However, this style of

reporting can become confusing for readers, especially if they seek to identify differences in conceptual parts as categories ascend. As many aspects are analysed simultaneously in these studies, conceptual parts are often glossed over. For example, in Marton et al.'s (1993) study, many categories did not even include reference to parts supposably part of their framework and few conceptual parts were illustrated with data; most were simply stated.

In an effort to clarify for readers how conceptual parts are derived from the data, in this study each is reported separately within its own section. However, this proved difficult for several reasons. First, data could often be used to illustrate more than one conceptual part; however, within a specific section it was only relevant to talk about aspects of the data relating to that part. Some repetition ensued. It became difficult to avoid discussing data without making reference to other conceptual parts present within passages.

Second, analysing data in this fine grained way required much tighter definitions of conceptual parts than are needed in most phenomenographic studies. For example, when discussing the external horizon broadly in relation to a category, identifying it as a "context" may be sufficient. However, in this study, there are three external horizons associated with each conception, relating to the *what* aspect's direct object, the *how* aspect's act, and the *how* aspect's indirect object. It became necessary to define exactly what a context for each would entail. For example, while the context for the actual phenomenon of student engagement could relate to specific settings, a context for the intents described in the indirect object takes a different shape and is thought to include perceived characteristics of the environment where participant intentions are enacted.

The amount of work involved in honing these definitions must be weighted against the benefits of this fine grained analysis.

While this study has shown that all conceptual parts within Marton and Booth's (1997) framework can be found in data, the practicality of using the full complexity of this framework for most investigations must be questioned. At present, there is not a concise way of reporting such results, making this level of analysis inappropriate for short publications like journal articles and conference papers. It is only within books, long reports, and theses that such a framework can be operationalised.

It is also necessary to acknowledge more general limitations of phenomenography to explain what these data can and cannot be used to say. While phenomenography can be used to generate theoretical models that identify the variation between conceptions, this limited scope is all it can be used to establish. It cannot be used to connect individual participants with specific conceptions or establish the prevalence of conceptions within a population (Åkerlind et al., 2005; Barnacle, 2005; Marton & Pong, 2005). This is because it examines the conceptions of a collective group of people instead of analysing the understandings of individuals.

It must also be stressed that the relationships shown in the outcome space are theoretical. While the analysis conducted in this study is used to show how people's understandings (*what*) are related to certain conceptualised acts that are perceived to facilitate these meanings (*how*), these relationships cannot be assumed to occur in practice. While some correlations seem more plausible, Pramling (1983) explains that "all … combinations [of *what* and *how* aspects] are possible" even thought there is

"some trend towards a certain correlation" (p. 107). In order to further investigate these relationships, it becomes necessary to use a research approach other than phenomenography as it cannot be used to substantiate the relationships within outcome spaces.

Phenomenography itself can only be used to create theoretical models; all other types of inquiry are outside its scope, making its versatility limited. To further examine the empirical results of this study, another approach would be needed. The final section will explore potential areas for future research in light of the conclusions and limitations of this study.

7.5.3 Suggested areas for future research

The research conducted in this study highlights the need for further inquiry into some specific aspects of student engagement and phenomenography. Phenomenography has been shown to be a fruitful way of investigating student engagement as it can be used to establish relationships between understandings. The two models developed in this study, one based on academic literature and the other on empirical data, are useful for establishing the relationships between different kinds of student engagement. However, at present, these models are strictly theoretical; systematic quantitative and qualitative inquiry is required to examine these understandings in practice. Specifically, additional work is required to investigate more thoroughly the interplay between cognitive, psychological, and behavioural engagement. Within these studies, it is recommended that cognitive engagement be a particular focus of inquiry. Studies could investigate how cognitive engagement could be fostered through all levels of schooling as little research has addressed this issue.

Category 3 of the *how* aspect (Collaboration) highlights the potential fruitfulness of teaching in a collaborative way. More research is needed to establish that collaborative projects like those described by participants do engage students in the powerful ways teachers in this study suggest. Also, the sustainability of a collaborative approach must be investigated. In this study, teachers indicate that this approach can seldom be used within schools as currently constructed. Research should aim to establish conditions under which teachers can successfully use this approach in a sustainable way.

The research conducted in this study also suggests that it is important to develop ways of enhancing the engagement of students already adequately engaged in school tasks, not just those considered disengaged. Increasing the engagement of the already engaged is seldom considered in policy or investigated in research. Perhaps this is because it is not a glaring problem leading to student early school leaving or anti-social behaviour. This is an important, but overlooked, area for future research.

At a conceptual level, it would also be fruitful to establish the conceptions held by other stakeholder groups within education, like students, parents, school administrators, and policy makers. These data could be compared and contrasted with the outcome space generated in this study to establish a clearer picture of conceptual understandings of student engagement. In particular, it would be fruitful to investigate student conceptions of their own engagement. When comparing the outcomes of this study with research on engagement from student perspectives, it appears that teacher and student conceptions of engagement are similar (Cothran & Ennis, 2000; Gross & Burford, 2006). However, previous studies do not use an approach aimed at eliciting student conceptual understandings and are more concerned with identifying factors students relate to

engagement. Using an approach like phenomenography would be helpful in establishing how student and teacher conceptions align (or do not align) to generate a clearer picture of how the concept of student engagement is understood within schools.

Within the phenomenographic approach itself, there is a need for research into how the theoretical frameworks based on intentionality and awareness can be best applied to generate useful results. At present, as explained in the previous section, using both frameworks simultaneously is seldom practical. Useful work could be done to establish a concise, but sufficiently detailed, way of reporting outcomes when using both frameworks. However, perhaps more important is a systematic exploration of the strengths and weaknesses of each framework in relation to specific types of inquiry. Such data would aid future researchers in deciding which of the two frameworks would be most fruitful to utilise in their investigations.

This study suggests that future work on student engagement must aim to increase conceptual clarity instead of just adding new ideas to an already crowded construct. Student engagement remains a concept with largely untapped potential (Fredricks et al., 2004). Synchronising the ways it is talked about and understood by educational stakeholders would increase its usefulness. This study has been one step towards changing the concept of student engagement from ". . . an elusive one [concept] that requires further clarification" (Butler-Kisber & Portelli, 2003, p. 207) to a useful concept for talking about student experiences and learning.

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Appendix A
Ethical clearance documents

Queensland Government

Rockhampton District Office
Education Queensland

Dear Lois

RE: APPLICATION TO CONDUCT RESEARCH: "Teachers' Understanding of 'Engagement': A Phenomenographic Study of Teacher in Central Queensland."

Your application to conduct research in Rockhampton district schools has been approved.

The attached signed application form must be provided to the principals of all State Schools being approached. Please note that, although approval has been granted, there is no obligation on the part of school principals to participate.

Your attention is drawn to the conditions applicable to the research on the front page of the application, in particular, the expectation to provide a copy of the executive summary of your research to participating schools and the Rockhampton District Office.

Best wishes with your research project. I look forward to the executive summary of the research findings.

Yours sincerely

LYNNE FOLEY
Executive Director Schools

Ref: 04/79946

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MEMORANDUM
From the Office of Research

Central Queensland
U N I V E R S I T Y

Secretary, Human Research Ethics Committee
Ph: 07 4923 2603
Fax: 07 4923 2600
Email: n.turner@cqu.edu.au

Ms Lois Irvin
Faculty of Education and Creative Arts
Building 33, Central Queensland University
Rockhampton QLD 4702

Dear Ms Irvin,

HUMAN RESEARCH ETHICS COMMITTEE APPROVAL FOR PROJECT H04/09-108, TEACHERS' UNDERSTANDING OF 'ENGAGEMENT': A PHENOMENOGRAPHIC STUDY OF TEACHER IN CENTRAL QUEENSLAND

The Human Research Ethics Committee is an approved institutional ethics committee constituted in accord with guidelines formulated by the National Health and Medical Research Council (NHMRC) and governed by policies and procedures consistent with principles as contained in publications such as the joint Australian Vice-Chancellors' Committee and NHMRC *Statement and Guidelines on Research Practice.*

On 17 March 2005 the Human Research Ethics Committee of Central Queensland University acknowledged your compliance to the conditions placed on your ethics approval for the research project *Teachers' understanding of 'engagement': a phenomenographic study of teacher in Central Queensland* (Project Number H04/09-108).

The period of ethics approval is 06 October 2004 to 15 June 2005. The approval number is H04/09-108.

The conditions of approval for this research project are that:

(a)   you conduct the research project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments required to be made to the proposal by the Human Research Ethics Committee;

(b)   you report immediately anything which may warrant review of ethics approval of the project, including:
(i)   serious or unexpected adverse effects on participants;
(ii)   proposed changes in the protocol;
(iii)   unforeseen events that might affect continued ethical acceptability of the project;

(A written report of any adverse occurrence or unforeseen event that might affect the continued ethical acceptability of the research project must be submitted to the Chair of the Human Research Ethics Committee by no later than the next working day after recognition of an adverse occurrence/event.)

(c)   you provide the Human Research Ethics Committee with a written "Final Report" by no later than 31 July 2005;

(d)   if the research project is discontinued, you advise the Committee in writing within 5 working days of the discontinuation;

(e)   you comply with each and all of the above conditions of approval and any additional conditions or any modification of conditions which may be made subsequently by the Human Research Ethics Committee.

Please note that failure to comply with the conditions of approval and the *National Statement on Ethical Conduct in Research Involving Humans* may result in withdrawal of approval for the project.

A copy of the reporting pro formas may be obtained from the Human Research Ethics Committee Secretary, Nicole Turner please contact at the telephone or email given on the first page.

You are required to advise the Secretary in writing within 5 working days if this project does not proceed for any reason. In the event that you require an extension of ethics approval for this project, please make written application in advance of the end-date of this approval. The research cannot continue beyond the end date of approval unless the Committee has granted an extension of ethics approval. Extensions of approval cannot be granted retrospectively. Should you need an extension but not apply for this before the end-date of the approval then a full new application for approval must be submitted to the Secretary for the Committee to consider.

If you have any queries in relation to this approval or if you need any further information please contact the Secretary, Nicole Turner or myself.

Yours sincerely,

Associate Professor Ken Purnell
Chair, Human Research Ethics Committee

Cc: Project File

Appendix B
Participant consent form

Teachers' understanding of "engagement":
A phenomenographic study of teachers in Central Queensland
Information sheet for participants

15 September 2004

Teachers' understanding of "engagement": A phenomenographic study of teachers in Central Queensland is a research project completed as a requirement for a Doctorate in Philosophy degree from Central Queensland University. Its main aim is to explore teacher understandings of student engagement in learning. The concept of engagement has become prominent in recent Education Queensland policy documents. For example, the current *Education and Training Reforms for the Future White Paper* (2002) states "This reform is about engaging young people in learning" (p.7) highlighting the importance Education Queensland policy documents are placing on engaging students.

While there has been academic research conducted on engagement, few studies have examined what teachers believe engagement is and how they believe policy objectives and reforms affect student engagement. This study plans to gather information about how current secondary school teachers:

- Define engagement
- Believe engagement can be/is being fostered in current school settings
- Explain the role of Education Queensland policies (as defined by policy documents) in creating engagement in schools.

You are invited to participate on a voluntary basis in this project. If you choose to participate, the primary researcher Lois Irvin will interview you about your perspectives on engagement. This interview will take approximately 45 minutes and will be tape-recorded. With permission, a follow-up interview or series of no more than 3 focus groups may be conducted to clarify statements made in the initial interview. There will be an opportunity prior to the commencement of the interview to address any questions you may have about the project. If you decide to participate, please complete the attached consent form. You may withdraw at any time; participation or non-participation will not affect your standing in your school.

To protect confidentiality, actual names of participants will not appear in the results. Instead, you will be assigned a pseudonym that will be used throughout the interviews and in any publications. The cassette tapes containing the recorded interviews will be kept in locked storage for five years, as per Central Queensland University policy. A copy of the results of the project will be available to you in July 2006. To obtain a summary of the results, fill in your address on the consent form; a summary will also be available on the CQU website.

Should you have any questions regarding the project, please contact Lois Irvin by email at irvinl@student.cqu.edu.au. Please contact Central Queensland University's Office of Research (phone 4930-9828) should there be any concerns about the nature of this research project.

Kind regards,

Lois Irvin
Central Queensland University Postgraduate Researcher

Teachers' understanding of "engagement":
A phenomenographic study of teachers in Central Queensland

Consent form for participants

I have read the information sheet on the *Teachers' understanding of "engagement": A phenomenographic study of teachers in Central Queensland* project and have had any questions related to this addressed. I understand that my participation is voluntary and that I may withdraw from the project at any time without penalty. I further understand that my identity will remain confidential.

I agree to participate in the initial face-to-face interview for the project. **Yes/No**
I am willing to participate in a follow up interview or focus groups. **Yes/No**

Name (please print):

_____

Signature: _____

Date: _____

Contact phone number: _____

Please send me a copy of the draft results to this address:

_____

_____

_____

Appendix C
Interview schedule

Teachers' understanding of "engagement":

A phenomenographic study of teachers in Central Queensland

In the following interview, I am interested in finding out your perspective on engagement and am seeking to view the concept from your point of view. To gather this information, I will be asking you the questions below and will also ask further questions as needed to clarify things you say in the interview.

1. Tell the story of a time when students were engaged in your class.
2. Why do you think these students were engaged?
3. What specific strategies did you use to foster engagement?
4. Are there some students who seem to be more likely to engage?
5. Are there some students who seem less likely to be engaged?
6. Describe your picture of an engaged student.
7. What does engagement mean in a school context?
8. Of all current policy reform documents, the Education and Training Reforms for the Future package is the set which ties itself most explicitly to the goal of engaging students in learning. How familiar are you with this set of policies? Have you read them, attended training, etc.?
9. Read Position Statement 5 from *The Middle Phase of Learning: A Report to the Minister*. This statement outlines the key elements to achieving engagement and success for students that underpin the Middle Phase of Learning documents.
   - According to this Position Statement, what sorts of things do you believe teachers like yourself should be doing to increase student engagement?
   - Which of these things do you feel that you are already doing? How well do you think you are doing them?
   - What kind of changes might you make in your teaching practice to increase engagement?

If you are willing to provide the following information, please fill out the following participant demographics sheet:

Interview pseudonym _____

Gender: Male/ Female

Age group: 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-70
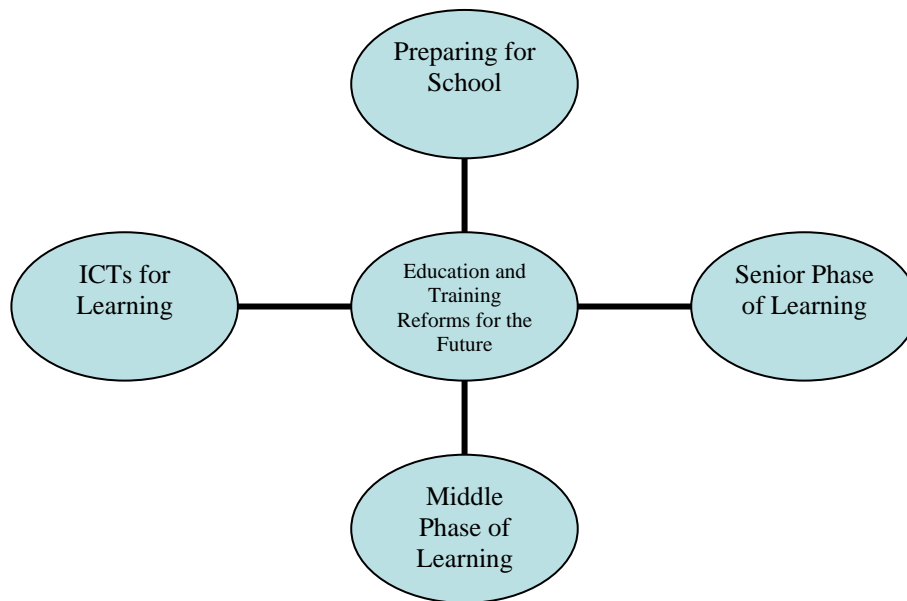
Number of years spent teaching _____

Grade levels/Subjects taught _____

School site _____

Question 8
Diagram based on Queensland Government (2002b)

Question 9
Position Statement 5

The key element to achieving engagement and success for each student is through developing an ethos in which:

- Teachers know each student in their care and are responsive to individual needs; teachers reflect on their pedagogy and its effectiveness (or otherwise) in engaging students in learning that is relevant, challenging, and enjoyable;
- Students' achievement in literacy and numeracy is monitored across the middle phase of schooling, with timely intervention strategies matched to classroom practice to ensure progress in this area for all students;
- Intellectually demanding and meaningful curriculum, effective pedagogy and assessment strategies are aligned;
- Time, space, teaching expertise, and other resources such as ICTs, are used flexibly to best meet the needs of the students in this phase of schooling.
(Ministerial Advisory Committee for Educational Renewal, 2003, p. 15)

Appendix D
Table of key themes

Theme	Description of theme	Number of passages
Assessment	Engagement discussed in relationship to assessment	38
Choice	Engagement linked with student choice	41
Challenge	Engagement linked with cognitive challenge	61
Conceptions	Engagement linked to students' conceptions of self, school, and their future	78
Confidence	Engagement linked with student confidence	46
Context	Locations where engagement takes place	36
Engagement is achievable	Situations where engagement is thought to be possible	4
Engagement not achievable	Situations where engagement is considered impossible	21
Environment	Descriptions of the type of school climate where engagement takes place	14
False engagement	Descriptions of students who appear engaged but aren't	13
Gender	Connections between engagement and gender	37
Independence	Links between student independence and engagement	24
Interest & enjoyment	Engagement correlated with student interest in material and the level of fun for students	136
Knowledge	Engagement linked to students' knowledge base	19
Laziness	Disengagement linked to laziness	20
Literacy	Descriptions about how literacy is related to engagement	14
Maturity	Engagement linked to student maturity	18
Misbehaviour	Discussions about how student misbehaviour ruins the engagement of individual students and the whole class	35
Motivation	Engagement linked to intrinsic and extrinsic motivation	46
Outcomes	Students' outcomes considered as evidence of engagement	29
Obedience	Engagement considered to be compliance	44
Owns learning	Engagement linked to student ownership of learning	51
Participation	Engagement is linked to participation	54
Peers	Descriptions about how peers help and hinder engagement	34
Relevance	Engagement linked to relevance and real world experiences	57
Student ability	Discussions about ability in relation to engagement	52
Student-teacher relationship	Descriptions about how positive relationships facilitate engagement	58
Success	Engagement linked to students' past success in the subject	54
Teacher attitude	Discussions about level of engagement in relationship to teacher attitudes	37
Technology	Use of technology linked to engagement	48
Time of day	Physical time of day linked to increased engagement or disengagement	7
Values	Engagement linked to students' home and personal values	62