

THE PEDAGOGY OF ENGAGEMENT: CLASSROOM MANAGEMENT VS. FACILITATING LEARNING

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Abstract

This thesis explored the way upper primary teachers think about student engagement and how they operationalise the concept within their classrooms. Student engagement has been frequently linked to academic success, and improving the engagement of students continues to be a priority for policy makers and practitioners alike. Despite an abundance of research, it remains questionable whether researcher conceptions of student engagement adequately represent the way teachers experience the concept. Teachers' perspectives on student engagement and their engagement-related practices were investigated over two studies using an exploratory sequential mixed methods design.

In Study One, in-depth interviews were conducted with 16 teachers to explore their beliefs about student engagement in learning. Teachers described six qualitatively different forms of engagement and disengagement, as well as a complex process for facilitating student engagement within lessons. A typology of engagement and a pedagogical framework for engaging students were proposed based on the findings.

Study Two sought to test the validity of the typology as a representation of teachers' descriptions of student engagement and its usefulness in coding teachers' engagement-related interactions within observed lessons. Four teachers were interviewed and four lessons observations for each teacher were conducted. In addition, 72 students within those classrooms were surveyed to explore their perceptions of aspects of the learning environment, including their understanding of teacher expectations for student engagement. Qualitative analysis of interview and observation data revealed that teachers varied in their expectations for student engagement within lessons, their views on the role of peers in student engagement, and in the frequency with which they intervened within lessons to facilitate different forms of student engagement.

Quantitative analysis of survey data suggest that students in different classrooms perceive different expectations for how they will engage in learning experiences.

A model is proposed for thinking about the pedagogy of student engagement, providing an alternative vantage point from which to explore the concept, one that is grounded in the real-life experiences of teachers facing the ongoing challenge of engaging students in classroom learning experiences.

Declaration

This is to certify that:

1. This thesis comprises only my original work towards the degree of Doctor of Philosophy except where indicated in the preface.
2. Due acknowledgement has been made in the text to all other material used.
3. This thesis is fewer than 100 000 words in length, exclusive of tables, maps, bibliographies and appendices.

Signature: *Amy Berry*

Date: June 5th, 2019

Preface

1. This thesis is comprised of my own original work. I have conceptualised, collected all of the data, undertaken the analysis of the data, and written all the content presented within this thesis. I collaborated with my principal supervisor to co-author the third paper (see point 3 below).
2. None of the work presented has been submitted for other qualifications.
3. Paper 3, presented as Chapter 6 in this thesis, is a substantially unchanged co-authored paper that has been submitted for publication. The authors made the following contributions (signatures attesting these contributions can be found in the *co-author authorisation* document submitted with this thesis):
 - a. Amy Berry conceptualised and designed the manuscript, collected and analysed the data, drafted the initial manuscript, and reviewed and revised the final manuscript as submitted.
 - b. John Hattie contributed to the conceptualisation and design of the manuscript, reviewed and revised the manuscript, and approved the final manuscript as submitted.
4. No third party editorial assistance, paid or voluntary, was used to produce this thesis. The supervisory team provided detailed feedback and edits throughout the writing process.
5. The three finding chapters are presented in the form of separate articles, and have all been submitted for publication. The publication status at the time of submitting this thesis is as follows:
 - a. Paper 1 (Chapter 4) is under review following revision and peer review by *Teachers and Teaching: theory and practice*.

- b. Paper 2 (Chapter 5) was submitted for publication to *Australian Journal of Teacher Education* in June 2019.
 - c. Paper 3 (Chapter 6) was submitted for publication in *Learning and Instruction* in June 2019.
- 6. As the three findings chapters are presented in the form of separate articles, some information is repeated for completeness purposes. This includes tables relating to study participants and instrument items used in the student survey. In addition, there is some inevitable repetition as each article draws upon the literature review presented in Chapter 2 to establish the rationale and research context for the study.
- 7. This research has been supported by The Science of Learning Research Centre, a Special Research Initiative of the Australian Research Council. Project Number SR120300015. Additionally, the research was funded by an Australian Postgraduate Award and Research Training Program Scholarship through the University of Melbourne. Finally, funding to present the findings of Study 2a at the Junior Researchers of EARLI (JURE) conference in Belgium was provided through a Melbourne Travelling Scholarship awarded by the Melbourne Graduate School of Education.

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A project such as this requires significant support from others and I have left the most important task of thanking them to the last. In some ways this is the easiest part of the thesis to write, because of the freedom from rules and conventions in the writing, but it is also the most difficult as I cannot possibly put into words my gratitude for all who contributed to the finished product.

Advisory Committee

I first met with John Hattie on the day I submitted my Master's thesis. I was hoping he would take me on as a PhD student, and while he expressed interest in my ideas, he did not say yes right away. Instead he asked for a sample of my writing, gave me a copy of his 'terms of reference' and set me a task of designing five studies that might be used to investigate my topic. The writing sample was easy, the five-study design proved more challenging, but it was the 'terms of reference' that told me I had found the perfect supervisor for me. From the start, John showed great faith in my judgement and insisted I take the lead while always being there to offer guidance and suggestions when things threatened to stall. I'm sure it would have been quicker, easier and less painful to take over and tell me what to do and how to do it, but John let me make mistakes, let me struggle 'in the pit' and let me find a way out. He let me learn, and for that I am grateful.

Like John, Dianne Vella-Brodrick also expressed an interest in my ideas but did not say yes right away (seems to be a theme!). Thankfully, she did say yes, and her guidance and feedback along the way improved both my writing and my thinking. Dianne's commitment to her students is undeniable and she provided numerous opportunities for learning and developing

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Family and friends

Without a doubt, the person who has provided the most support has been my husband, Craig. He is the greatest cheerleader anyone could ask for, and his belief in me remained constant throughout, even when my belief in myself wavered. He listened with interest whenever I had a sudden burst of insight or clarity, even when that came in the early hours of the morning when most normal people would be sleeping. Craig proved to be an excellent practice audience when preparing for presentations or trying to communicate new ideas, providing useful feedback and much needed encouragement. I have no doubt that Craig will be as happy as I am that the journey is coming to an end, and I look forward to enjoying the weekends again with him. My two children have also shown great support and interest in my work over the years, and it was with great delight that I returned to study when they were also at university. I enjoyed the late night conversations with my son Nick about our research projects, and was grateful that he came to both my confirmation and completion presentations. My daughter Kelsey has also lent her considerable editing talents to the cause and read through the final draft in search of wayward punctuation, missing words and formatting gone awry. Finally, my mother, Vicki, has listened with interest to frequent updates about my work and shown great support for my education throughout my life.

A number of close friendships have been formed over the course of this PhD and their support has been instrumental in making this time not only tolerable but also full of fun, laughter

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Chapter 1: Introduction

The concept of student engagement remains enticing for its potential to bring together elements of the individual such as interest and strategy use, elements of the context such as instructional strategies and social interactions, and valued outcomes such as academic success and emotional wellbeing. Engagement has been linked with positive student outcomes including achievement and academic success and protective benefits in relation to school dropout, depression and drug use (Wang & Fredricks, 2014). Despite the perceived importance of student engagement and the substantial research attention it has received, it remains that diminishing student engagement continues to present a significant challenge for schools and teachers. While engagement researchers frequently point to evidence that engaged students achieve better educational outcomes than those who are disengaged (Fredricks, Blumenfeld, & Paris, 2004; Marks, 2000), unfortunately the evidence also suggests that student engagement declines as students move through school, particularly in the transition from upper-primary to secondary school (Skinner, Furrer, Marchand, & Kindermann, 2008; Wigfield, Byrnes, & Eccles, 2006). A recent report into student engagement in Australian schools detailed widespread student disengagement and the negative impact on teachers as they struggle to cope with disengaged and disruptive students (Goss, Sonnemann, & Griffiths, 2017). In one study, it was reported that roughly 40% of students were regularly disengaged in the classroom, with over half of those being categorised as complaint but "quietly disengaged" (Goss et al., 2017, p. 10). Importantly, the evidence suggests that teacher experience is no remedy for student disengagement, with experienced teachers experiencing the same rates of disengagement as those new to the profession. The report illustrates a common message that student engagement is a serious

problem within classrooms and one that has yet to be solved. Additionally, the report establishes the saliency of student engagement as a concept of ongoing concern for Australian teachers.

Research into the concept of student engagement can be traced back to the 1980s and continues to grow. In recent years, special issues of *Learning and Instruction* (Fredricks, Filsecker, & Lawson, 2016) and *Educational Psychologist* (Sinatra, Heddy, & Lombardi, 2015) have been devoted entirely to the topic. There remains a lack of definitional and conceptual clarity in relation to the term 'student engagement'. In particular, debate continues within the field as to what should be included under the umbrella of engagement, the relationship between motivation and engagement, how engagement and disengagement are best conceptualised, as well as the most effective ways of facilitating student engagement in the classroom. At present there is no identifiable theory of engagement (Azevedo, 2015; Boekaerts, 2016) and no agreed upon definition of the concept (Reschly & Christenson, 2012; Wang & Degol, 2014). In practice, the term is often used without any attempt to define or describe what is meant (Boekaerts, 2016; Murray, Mitchell, Gale, Edwards, & Zyngier, 2004). In the broadest sense student engagement involves some level of activity and participation in school, but beyond this the different conceptions found in the literature begin to diverge, something that will be discussed in more detail in the next chapter.

In 2016, Eccles warned, "the popularity and seeming familiarity of engagement as a concept," brings with it "the danger that, although we believe we are communicating well, we are actually talking about very different things" (Eccles, 2016, pp. 72–73). The general agreement that student engagement is something worth promoting within schools and classrooms, without agreeing on what is meant by the term, may have led to an illusion of consensus whereby we assume we are speaking the same language, but in fact we may be thinking of significantly

different concepts. Inconsistencies in how engagement is operationalised in studies present a significant obstacle to synthesising the vast amount of research that has been undertaken. To this point, Boekaerts (2016) declares,

...engagement research is characterized presently by specialization, fragmentation, and proliferation rather than by synthesis. Yet it is synthesis what is needed. Without synthesis we cannot answer the question of whether use of the 'engagement' construct creates more confusion than it helps us understand phenomena in the classroom. (p. 82)

Boekaerts' point about the usefulness of the concept for understanding what is happening in the classroom is one worth exploring given the commonly expressed expectation that teachers (and schools) should be doing more to improve the engagement of their students (Goss et al., 2017). Undoubtedly, teachers have a key role to play in student engagement given the evidence that engagement is sensitive to aspects of the classroom environment that are under the control of the teacher, such as the social-emotional environment of the classroom (Earl, Taylor, Meijen, & Passfield, 2017; Skinner & Belmont, 1993; Vollet, Kindermann, & Skinner, 2017), task characteristics (Acee et al., 2010; Malmberg, Järvelä, & Kirschner, 2014; Marks, 2000) and instructional strategies (Godwin et al., 2016; Shumow, Schmidt, & Zaleski, 2013). Despite the ever-growing research, the problem of student engagement persists and it is worth questioning whether efforts to translate research findings have been successful in supporting teachers to better engage their students. One possible reason for this disconnect between research and practice may be that prevailing research frameworks and conceptions of engagement do not adequately represent the way teachers experience student engagement or think about it in the context of their classroom. To date, we have a limited understanding of teachers' perspectives on student engagement due to a lack of research attention in this area, and therefore no way of

knowing whether recommendations made by researchers are relevant, realistic or useful to teachers wanting to improve the engagement of their students. The major objective of this research was to explore the perspective of the classroom teacher to better understand how teachers think about student engagement and the processes and strategies they use to facilitate engagement during their lessons.

Research aims and scope

Rather than attempting to provide a replacement for existing conceptualisations and frameworks of student engagement, this research aims to provide an additional perspective on student engagement, that of the classroom teacher. The reasoning behind this research is based on a number of propositions. First, it is likely that teachers ascribe a number of meanings to the broad terms *engagement* and *disengagement* and it is possible that these meanings do not align with the conceptions and frameworks for engagement represented in the research literature. There is some evidence to suggest this is true (Harris, 2008), however the research in this area is limited. Second, as teachers are expected to facilitate student engagement as part of their role, they may offer some needed insight into the processes and strategies that are used to engage students in classroom learning experiences. There has been some indication that teachers vary in how they view their role in student engagement (Harris, 2010), but the evidence is limited and based solely on self-reported practices. It is proposed that teachers will differ in the way they approach the task of engaging students in classroom learning experiences, including the way they think about engaging students and the actions they take during lessons to promote student engagement. Finally, it is proposed that differences among teachers in the way they operationalise the concept of engagement in their classrooms will be reflected in student perceptions of what it means to be *engaged in learning* within that classroom.

As upper primary school has been identified as an important transition period characterised by declining student engagement, this research focuses on upper primary teachers and their students. The lack of available quantitative measures to capture teachers' beliefs about student engagement and their engagement-related practices within lessons required the use of qualitative methods that prohibit large numbers of participants. While every attempt was made to maximise the diversity of the participants, it remains a small sample of 19 teachers and cannot claim to be representative of the wider population of upper primary teachers.

Theoretical perspective

This section aims to ground the research aims and propositions described above by introducing the theoretical relationship between teacher beliefs and teacher practice, as well as introducing the concept of a learning environment.

Teacher beliefs and teacher practice

Research into teacher beliefs has a long history, and despite a lack of definitive evidence that they can be used to reliably predict or explain teacher behaviour, many researchers remain convinced that teacher beliefs are important (Fives & Buehl, 2011). According to Richardson (1996) beliefs are "psychologically held understandings, premises, and propositions about the world that are felt to be true" (p. 103). Fives and Buehl (2011) described three functions of teacher beliefs: a filter for interpreting experiences and information, a frame for defining a problem, and as a guide for action. In short, beliefs are said to influence what teachers pay attention to, how they interpret it, and what they decide to do about it. Based on this, it is proposed here that the beliefs that teachers hold about student engagement in learning will

influence their planning for learning experiences, their interpretations of classroom events and their decision-making within lessons in relation to student engagement.

Classroom learning environments

The environment of the classroom is believed to play an important role in students' motivation to learn, engagement in learning and academic achievement. Classrooms are inherently social environments and the interactions within the classroom contribute to the environment of that classroom. Classrooms with positive climates are characterised as having teachers who are supportive of students and responsive to their needs, warm, caring and respectful relationships between students and teachers (Hamre & Pianta, 2007). Along with these social-emotional aspects, teachers also communicate messages about learning and learners, such as whether students are encouraged to interact with their peers during learning experiences. Student perceptions of the classroom environment are said to influence their behaviour within that environment. For example, there is evidence that when middle years students perceive their teacher to be supportive they report engaging in more self-regulated learning behaviours and less disruptive behaviours (Ryan & Patrick, 2001). The relationship between the classroom environment and student achievement continues to be explored with some indication that student engagement may act as a mediator between the emotional climate of the classroom and student achievement (Reyes, Brackett, Rivers, White, & Salovey, 2012). There is strong evidence supporting a direct link between student perceptions of the classroom environment and their engagement in the classroom (Klem & Connell, 2004; Reyes et al., 2012; Ryan & Patrick, 2001). For this reason the research presented in this thesis is underpinned by an assumption that the way teachers interact and behave in the classroom will contribute significantly to the classroom

environment, and that this will then influence the engagement of the students within that classroom.

Significance of research

While student engagement has been frequently linked to desirable student outcomes such as achievement, positive attitudes towards learning and towards school, and academic success, it remains that schools and teachers continue to struggle with diminishing student engagement and the negative effects of student disengagement in the classroom. This is despite decades of research into the concept and an ever-growing mountain of studies that have been published in research journals. There have been attempts to connect research findings with practical implications for teaching in the form of recommendations; however, we do not know whether these recommendations are relevant, useful, practical or even possible in the real world of the classroom. Unfortunately, the teacher has been somewhat sidelined in the research literature, and we know very little about their experiences of student engagement or their attempts to promote student engagement in their classrooms. Arguably, this has meant that efforts to translate research findings and connect them with real-world practices have been one sided. This research makes unique contributions to our understanding of student engagement by exploring the perspective of the teacher. It is clear from the findings presented in this thesis that teachers think about student engagement in ways that are distinctly different from the multidimensional models favoured by researchers. Rather than seeking to replace the existing engagement frameworks, it is hoped that findings presented here might support a more productive conversation between engagement researchers and classroom practitioners.

It is not suggested that we look to teachers to provide us with definitive answers to solving the problem of disengagement or promoting students' engagement, the evidence tells us

they may not have these answers. It is argued in this research that it may be more appropriate to conceive of engagement as a problem that teachers need to address in each and every lesson, rather than thinking of engagement as a problem that must be solved once and for all. This is the pedagogy of engagement, the work of getting students engaged and keeping them engaged in learning experiences. Teachers can provide us with is an insight into the pedagogy of engagement, an insight that is grounded in the real world of the classroom. While many would argue that the engagement literature is well advanced, this is not the case when we look specifically at the literature in reference to pedagogy. If we are to effectively connect what we already know about student engagement to those that are tasked with facilitating engagement in the classroom, then we need to better understand the practices and processes that are currently being employed by practitioners in the name of engagement. Having this information may allow us to better identify the points of need that teachers experience, and support them with research evidence that targets these needs.

Finally, the research establishes a potential link between the teacher expectations research and the student engagement research. Rubie-Davies (Rubie-Davies, 2007; Rubie, 2004) found that teachers can have class-level expectations for their students, and was able to identify teachers who have high and low expectations for their students' achievement. She went on to describe the practices characteristic of high and low expectations teachers (Rubie-Davies, 2007). In a similar way this research has identified differences in teacher expectations for student engagement within lessons, differences that were perceived by the researcher during classroom observations and by the students themselves. The classroom observations provided evidence of the different approaches that teachers took to engage students within a lesson, and this might provide a basis for future studies exploring the characteristics of high (and low) engagement

expectation teachers. There were many similarities between the high expectation teacher in this study and the descriptions of high expectation teachers found in Rubie-Davies' work, and it is worth exploring this connection more fully in future to determine if teacher expectations for achievement are directly related to their expectations for student engagement.

Design of the research

As there is limited empirical evidence to support our understanding of teachers' beliefs about student engagement or their approaches to engaging students in classroom learning experiences, this research took an exploratory approach and employed a sequential mixed-methods design. The research in this thesis is comprised of two studies. Study 1 involved in-depth teacher interviews and was designed to explore teacher beliefs about student engagement, learning and motivation within the context of the classroom. From this a typology of engagement was developed to represent the different forms of engagement and disengagement described by the teachers. A pedagogical framework for engagement was also developed to represent their descriptions of how they go about the task of engaging students.

In Study 2a, a new group of teachers were interviewed to test the new typology, and both the typology and the framework were used to develop a protocol for classroom observations. This study aimed to explore the teachers' engagement-related practices within lessons, as well as any relationship between their expressed beliefs about engagement. Three distinct approaches to engaging students in lessons were described. Study 2b followed on from this and surveyed the students of the teachers in Study 2a to determine whether there was any relationship between the teacher's engagement approach and the students' perception of the learning environment.

The following chapter presents a critical review of the research into student engagement, with a particular focus on the limited research into the teachers' perspective on student engagement. Chapter 2 concludes by highlighting the limitations of the student engagement literature, particularly its usefulness and relevance to teachers. Together these two chapters aim to provide context and justification for the research conducted in this thesis. Following that, Chapter 3 presents the methodology and research design for this project, as well as a detailed account of the methods and instruments used in each study.

The subsequent three chapters are comprised of three standalone manuscripts, and each chapter is prefaced by a short description of the current status of the manuscript along with information to situate the manuscript within the research design. It is hoped that these steps will provide continuity of the narrative, while also acknowledging that there is some unavoidable repetition for the reader that may not be present in more traditional thesis formats.

The final chapter summarises the key findings from the two studies, before proposing a model for the pedagogical process of engaging students. Finally, a discussion of the educational implications is presented along with the implications for future research.

Chapter 2: Literature Review

This chapter has three objectives. The first is to introduce the literature relating to student engagement and identify the key gaps in knowledge that led to the questions underpinning this thesis. The second is to expand on the notion of engagement as a pedagogical process to further situate this research. The final objective is to present the current literature relating to teachers' perspectives on the concepts of engagement and motivation as a basis for this exploration into teachers' personal theories of student engagement.

Research into student engagement

While it is undeniable that the concept of student engagement has captured the attention of a wide range of researchers, it is also true there has been a lack of consensus about what is meant by 'engagement' and how it is related to student learning. Azevedo (2015) declared it to be “one of the most widely misused and overgeneralized constructs found in the educational, learning, instructional, and psychological sciences” (p. 84) after a search of the PsychInfo database returned over 32,000 articles related to engagement in the last 14 years. The concept has come to refer to a wide range of aspects from student attendance, participation and achievement to teacher practices and contextual features of the learning environment. A thorough and in-depth review of such a vast body of literature is beyond the scope of this current research and has been done elsewhere (e.g., Fredricks et al., 2004; Lawson & Lawson, 2013; Wang & Degol, 2014); however, it is necessary to understand the breadth of research to identify the gaps in our current understanding of the concept and define the boundaries of what literature will be explored in this review.

Looking at the engagement literature, three themes emerged in terms of the primary and direct focus of the research. Arguably the largest and dominant body of work has concerned

itself with *engagement as a psychological construct*. The focus of this literature has been on describing the concept (Fredricks et al., 2016, 2004; Reeve & Tseng, 2011; Skinner, Kindermann, & Furrer, 2009), theorising about its relationship with other concepts such as motivation (Appleton, Christenson, & Furlong, 2008; Fredricks, Blumenfeld, & Paris, 2004; Skinner, Furrer, Marchand, & Kindermann, 2008) and self-regulated learning (Jarvela, Jarvenoja, Malmberg, Isohatala, & Sobocinski, 2016; Wolters & Taylor, 2012), developing tools to measure student engagement (Appleton, Christenson, Kim, & Reschly, 2006; Wang, Fredricks, Ye, Hofkens, & Linn, 2016), exploring patterns in student engagement (Skinner et al., 2008; Wylie & Hodgen, 2012; Zhang et al., 2008), and determining how it correlates with outcomes such as achievement, wellbeing and academic success (Conner & Pope, 2008; Klem & Connell, 2004; Lee, 2014; Zhang et al., 2008). Research in this category has been predominantly influenced and grounded in motivational theory.

A second body of literature has taken the lens of *engagement as a school problem*. This research has focused on preventing negative outcomes such as school dropout, and concentrates on students identified as being either disengaged or at-risk of disengaging from school (Finn & Rock, 1997; Finn & Zimmer, 2012; Janosz, Archambault, Morizot, & Pagani, 2008). Similarly, the research in this area has explored the negative impact of disengaged students on teachers and classrooms (Angus et al., 2010; Sullivan, Johnson, Owens, & Conway, 2014). Both lines of research described above have acknowledged the important role of the teacher in student engagement, but neither has focused on understanding how that role is carried out in the classroom.

A third, and much less explored area of the research examines *engagement as a pedagogical process*. The aim of studies in this category has been to understand the daily teacher

practices related to facilitating student engagement in classroom learning experiences. This has included explorations into the beliefs that teachers hold about student engagement (Harris, 2008, 2010, 2011) and student motivation (Hardre, 2008; Hardré & Hennessey, 2013; Hardré & Sullivan, 2009), as well as their attempts to diagnose and intervene for student engagement and motivation in the classroom (Hardré & Sullivan, 2009; Harris, 2010; Lee & Reeve, 2012). The paucity of studies into the pedagogy of engagement has hindered our full understanding of the concept, and limited our ability to connect research findings with the real world of classroom teaching and learning. Undeniably there is some overlap between these research areas, and they are not offered as hard boundaries between lines of research. Studies in the first two categories often offered suggestions for teaching practice in their discussion, although this has been more of an effort at translation rather than an attempt to study the practices related to engaging students in the classroom. Likewise, studies seeking to develop interventions for at-risk students have also theorized about the nature of disengagement and explored its relationship with outcomes such as academic success.

An overview of studies into the concept of engagement and problems with student engagement will follow before turning the attention to a more in-depth discussion of the research into the pedagogy associated with facilitating student engagement in classroom learning experiences. It is in this area of the research that this thesis will be situated.

The concept of student engagement

Research into the concept of engagement has been strongly influenced by the field of motivation research, and distinctly psychological in nature. As such, it has primarily focused on the individual level and concerned itself with both internal and external processes associated with being engaged.

Engagement as a multi-dimensional concept.

There has been a general consensus that engagement is a multi-dimensional construct, however researchers have not agreed on what those dimensions are or how they should be operationalised within research studies. The most commonly accepted and cited conceptualisation was proposed by Fredricks, Blumenfeld and Paris (2004) in their review of the research. They described three dimensions of engagement: behavioural, emotional, and cognitive. Behavioural engagement refers to elements such as task completion, rule following and participation in school. In contrast, emotional engagement, also referred to as affective engagement, describes students' attitudes, interest, and feelings about school. Finally, cognitive engagement has the most explicit connection to learning and relates to students' psychological investment in learning, as well as their use of learning strategies. While there has been strong support for categorising engagement in this way, in practice it has been less clear as concepts such as effort have been categorised under different dimensions by different researchers (Fredricks & McColskey, 2011, 2004; Reschly & Christenson, 2012). Other dimensions have been proposed in the literature, including: agentic engagement (Reeve & Tseng, 2011), academic engagement (Appleton et al., 2008), social engagement (Fredricks et al., 2016), collaborative engagement (Jarvela et al., 2016), and social behavioural engagement (Linnenbrink-Garcia, Rogat, & Koskey, 2011).

Perhaps the most obvious symptom of the lack of consensus amongst engagement researchers has been the way the concept is operationalised in research studies. Fredricks et al. (2011) reviewed 21 instruments for measuring student engagement. Of those, 14 were student self-report, three were teacher-report and four were observation instruments. In comparing the instruments, the authors reported variation in how engagement was conceptualised, how it was

defined, and which aspects were measured. Of the 14 student self-report instruments, only five included subscales for all three dimensions of engagement (behavioural, emotional, and cognitive); five addressed two of the dimensions; and four addressed only one dimension. Eleven of the 14 instruments included items focusing on behavioural engagement (e.g., attention, participation in class, attendance, following rules, effort), and 10 included items focusing on emotional engagement (e.g., feelings of happiness or anxiety, interest, enjoyment, feeling safe and supported, having positive relationships). Eight instruments included items relating to cognitive engagement (e.g., self-regulation behaviours, cognitive strategy use, future aspirations and goals, perceived value of schooling). Beyond differences in which dimensions were included, inconsistencies were reported in the way that some dimensions were operationalised in the instruments. As an example, in some instruments student effort was related to cognitive engagement (as a psychological investment in learning), while others situated it in behavioural engagement (as a reflection of compliance). In some instruments, the cognitive and behavioural dimensions were combined (Fredricks et al., 2011). These inconsistencies in engagement studies present a significant obstacle to synthesising the vast amount of research that has been undertaken and the issue of how engagement should be conceptualised has been acknowledged as an ongoing challenge facing the field (Eccles & Wang, 2012; Finn & Zimmer, 2012; Fredricks et al., 2004; Lawson & Lawson, 2013; Reschly & Christenson, 2012; Wang & Degol, 2014).

Engagement and disengagement

It is difficult to discuss the concept of engagement without also including a discussion of what it means to be disengaged. In fact, the concept of engagement has often been problematized with a focus on diagnosing, preventing and remediating for disengagement rather than promoting engagement (e.g., Goss et al., 2017). Within the literature, the relationship between engagement

and disengagement continues to be a point of debate (Wang & Degol, 2014). Perhaps the most common view has been of a single continuum with engagement on one end and disengagement on the other. In this view, disengagement has been portrayed as the absence of engagement (e.g., Conner & Pope, 2008; Shernoff et al., 2016) or alternatively engagement has been described as the absence of disengagement (e.g., Angus et al., 2010; Sullivan, Johnson, Owens, & Conway, 2014). Some have chosen not to include disengagement in their studies, preferring to focus on different degrees of engagement to distinguish between students. For example, in Conner and Pope's (2013) study of high-achieving students it was found that while students may report high levels of behavioural engagement in the processes and procedures of school they also reported low levels of emotional and cognitive engagement in what they were doing. Although not explicit in such studies, the implication is that a low level of engagement is equivalent to being disengaged. This view of a single continuum has not been universally accepted by researchers, and some have argued for studying disengagement as a separate and distinct construct of its own (Jang, Kim, & Reeve, 2016; Skinner, Kindermann, & Furrer, 2009). Whether teachers conceptualise disengagement and engagement as opposite ends of the same continuum, or as distinctly different concepts has yet to be investigated.

While disengagement has generally been used as a broad term that includes a range of behaviours, recent work has argued for a distinction between passive and active forms of disengagement (Earl et al., 2017; Hospel et al., 2016). Active forms of disengagement included disrupting the classroom, arguing and disobeying the teacher. In contrast, passive forms of disengagement involved withdrawal evidenced by daydreaming, lethargy, not attempting tasks and avoiding answering questions. There is evidence that these different forms of disengagement are present in Australian classrooms, but whether they have differential impacts on student

outcomes is another question. A longitudinal study of nearly 1300 Australian students reported that while only a small number of students could be categorised as active and frequent disruptors of the classroom, 20 per cent of students were found to be generally compliant but disengaged from classroom instruction, with little difference between these two groups' academic performance. Despite leading to similar poor academic outcomes, it appears these different forms of disengagement attracted different responses from teachers. The actively disengaged students received the greatest attention, presumably because of the disruption they caused to the classroom, while the passively disengaged students went largely unnoticed (Angus et al., 2010).

Studying student engagement

The most common method of studying student engagement has been the use of self-report and teacher-report questionnaires. The benefits of self-report and teacher-report instruments undoubtedly lie in the ease with which they can be administered, especially cross-sectional designs that require a single time point. Such quantitative methods allow for large sample sizes and generalisability of findings. However, the approach is not without its limits. Self-report measures can be prone to bias such as social desirability bias where participants respond in a way they believe places them in a good light (Cohen, Manion, & Morrison, 2011; Foddy, 1993; Holtgraves, 2004). In addition, closed-question surveys may force participants to make choices that do not necessarily represent their actual attitudes or thinking, and do not allow them to provide information beyond the predetermined questions and ratings. It is also possible that respondents may interpret items in a way that was not intended (Cohen et al., 2011).

A less common approach to studying student engagement has been the use of classroom observation, as seen in Shumow, Schmidt and Zaleski's (2013) study of high school biology classrooms. Observation allows for rich data to be collected within the real-world context of the

classroom, which can aid our understanding of the relationships between engagement and other features of the context such as instructional strategies and interpersonal interactions. The downside is that observations are time-consuming and labour intensive, more invasive for participants, and subject to bias in that the observer cannot be entirely separated from the observing (Cohen et al., 2011). Due to the intensive nature of this method, smaller sample sizes are typical. The combination of sample size and subjectivity of the data, means there are limits to how generalisable the findings are.

Advancements in technology have enabled the use of experience sampling as a promising method for exploring student engagement within lessons (Shernoff et al., 2016; Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003; Shumow et al., 2013). Such studies are said to have increased ecological validity and are less susceptible to issues with recall and social desirability effects (Schwarz, 2012). Using this method has allowed researchers to explore the fluctuations that occur in engagement within and across lessons in a way that standard self-report instruments have not. When combined with observation, traditional survey and interviews, as seen in Shumow, Schmidt and Zaleski's (2013) study, this method provides a promising way forward for those interested in understanding the complexities of student engagement in the real-world context of the classroom.

The methods discussed above are those that have been used by engagement researchers, and while some of the instruments discussed in the Fredricks et al. (2011) report may be used by classroom teachers it is unclear how teachers monitor the engagement of their students each day in lessons. As this form of measurement is situated more clearly in the pedagogical process of engaging students, a more thorough discussion will be undertaken in that section.

The context for engagement

Engagement has been studied across a variety of contexts and levels, which contributes to the challenge of synthesising the literature. Skinner and Pitzer (2012) described four levels in their nested model of student engagement: engagement with prosocial institutions (church, clubs, school, family), engagement with school (sports, clubs, classroom, government), engagement in the classroom, and engagement with learning activities. Similarly, others have proposed a distinction be made between *engagement in school* and *engagement in learning*, arguing that the two forms may correlate with different outcomes (Harris, 2011; Janosz, 2012; Wylie & Hodgen, 2012) and have different determinants (Janosz, 2012). According to Janosz (2012), studies of engagement in school have generally focused on behavioural and emotional dimensions such as feelings of belonging, attendance, and following the rules. He argued these are more clearly associated with social outcomes related to being part of the social institution that is school, such as school dropout, rather than being associated with achievement or learning. By comparison, studies that focus on engagement in learning have tended to focus on behavioural and cognitive dimensions, such as time on task and use of strategies to support learning. Perhaps unsurprisingly, behavioural and cognitive engagement in learning activities have shown a much stronger correlation with achievement than feeling a sense of belonging at school (Lee, 2014; Wylie & Hodgen, 2012). Whether or not teachers distinguish between engagement in school and engagement in learning is unknown, although presumably a focus on engagement in learning would be a better fit for those wanting to facilitate learning within and across lessons.

Engagement and motivation

There is a strong presence within the engagement literature of various motivational theories. The concept of engagement has often been embedded within Self-Determination

Theory (SDT) by discussing links to human needs for relatedness, competence, and autonomy (e.g., Furrer & Skinner, 2003; Jang, Reeve, & Deci, 2010). Others have described close ties between the concept of engagement and the motivational concept of flow, which includes components of interest, concentration, and enjoyment (Shernoff et al., 2016; Shernoff et al., 2003). Other motivational theories have been used to explain student engagement, including: achievement goal theory (Anderman & Patrick, 2012), control-value theory of achievement emotions (Ainley & Ainley, 2011; Pekrun, 2006), social cognitive theory and the concept of self-efficacy (Schunk & Mullen, 2012), and expectancy-value theory (Eccles & Wang, 2012).

The overlap between the concepts of motivation and engagement has been noted (Eccles, 2016; Reschly & Christenson, 2012), with most authors in the *Handbook of Research on Student Engagement* (2012) appearing to endorse the view that motivation is the precursor of engagement. Engagement has commonly been described as being 'motivation in action'. However, the distinction between motivation and engagement remains decidedly unclear. Reschly and Christenson (2012) referred to it as a "prominent, lingering issue in the study of engagement" (p. 14). They identified three approaches to dealing with the two concepts in the literature: using the terms interchangeably, positioning engagement as a meta-construct that subsumes motivation, and describing motivation as the intention and engagement as the action. This lack of clarity and consensus amongst the research community may also be evident in the teacher community, for example teachers may or may not distinguish between 'getting students motivated' and 'getting students engaged'.

The influence of context on engagement

One of the key reasons for the rise in popularity in the concept of student engagement is due to its perceived malleability. It has been positioned as a key lever available to schools and

teachers interested in improving a variety of positive and desirable outcomes including academic achievement and student wellbeing. It has been widely accepted that teachers have an important role to play in student engagement and the next section will explore in more detail the role of the teacher in engaging students in classroom learning experiences.

Engagement is sensitive to the social-emotional environment of the classroom (Earl et al., 2017; Linnenbrink-Garcia et al., 2011; Marks, 2000; Roorda, Koomen, Spilt, & Oort, 2011; Ryan & Patrick, 2001; Skinner & Belmont, 1993; Vollet et al., 2017), task characteristics (Acee et al., 2010; Jarvela et al., 2016; Malmberg et al., 2014; Marks, 2000; Strati, Schmidt, & Maier, 2017) and instructional strategies (Assor, Kaplan, & Roth, 2002; Godwin et al., 2016; Jarvela et al., 2016; Linnenbrink-Garcia et al., 2011; Shumow et al., 2013). For example, it has been reported that on-task behaviour declined as the length of the instruction increased, and working in small groups was more conducive to on-task behaviour than whole group experiences (Godwin et al., 2016).

The role of the teacher

There is compelling evidence to show that teacher-student relationships are positively related to student engagement (Archambault, Pagani, & Fitzpatrick, 2013; Conner & Pope, 2013; Klem & Connell, 2004; Roorda et al., 2011; Skinner & Belmont, 1993; Yang, Bear, & May, 2018) and to students' feelings of belonging at school (Certo, Cauley, & Chafin, 2003; Ellerbrock, Kiefer, & Alley, 2014; Furrer, Skinner, & Pitzer, 2014). Unfortunately, there is also evidence to suggest that the quality of teacher-student relationships declines as students move through school (Jerome, Hamre, & Pianta, 2009; O'Connor, 2010). From a Self-Determination Theory perspective, these relationships are important because they contribute to students' needs for relatedness, competence and autonomy. Furrer and Skinner (2003, p. 158) proposed that feelings

of relatedness or belonging "may have an energetic function, awakening enthusiasm, interest, and willingness to participate in academic activities" and may also provide a buffer against negative emotions such as boredom, frustration and anxiety. In their correlational study of 641 elementary students, Furrer and Skinner (2003) reported that feelings of relatedness, particularly to teachers, were an important predictor of student's emotional engagement, and children with low relatedness to their teacher had significantly lower behavioural and emotional engagement.

A key aspect of teacher-student relationships is the support they provide to students. Teacher support has been described as having both instrumental (academic) and emotional dimensions (Ellerbrock et al., 2014; Furrer et al., 2014; Strati et al., 2017). Similarly, the opposite of support, obstruction, has also been conceptualised in this way by Strati, Schmidt and Maier (2017). Instrumental support involves scaffolding students in academic tasks by using strategies such as feedback and structured questioning, as well as providing them with adequate resources. To date, few studies have explored the role of instrumental support in student engagement, however it has been linked to student motivation and valued behaviours such as help-seeking (Federici & Skaalvik, 2014). More empirical evidence exists in relation to the positive relationship between teacher emotional support and student engagement (Klem & Connell, 2004; Marks, 2000; Patrick, Ryan, & Kaplan, 2007; Ryan & Patrick, 2001; Skinner & Belmont, 1993). Emotional support refers to the degree to which a teacher demonstrates caring, warmth, trust, respect and belief in their students' ability to succeed. Perceptions of teacher emotional support have been most commonly linked with student emotional engagement (Furrer & Skinner, 2003; Skinner & Belmont, 1993; Yang et al., 2018) and less often with cognitive engagement (Pietarinen, Soini, & Pyhäntö, 2014). The claims made by Pietarinen, Soini and Pyhäntö (2014) might best be considered by examining the way cognitive engagement was

operationalised in this study. Six items were used to measure cognitive engagement, with the items relating to students' experiences of success at school (e.g., *I have done well in my studies*), students' feelings of competence (e.g., *I know how to prepare myself for the exams*), and their perceived ability to satisfy teacher expectations (e.g., *I can act in the class the way my teacher wants me to*). This is vastly different from most common conceptions of cognitive engagement, and may be a better measure of school success than cognitive engagement. Strati, Schmidt and Maier (2017) reported that while teacher instructional support was significantly predictive of engagement, emotional support was not. In their study, 'academic engagement' was examined using items measuring concentration, effort, interest and enjoyment (e.g., *How well were you concentrating?* and *Was this activity interesting?*) covering both cognitive and affective aspects. Although both aspects were included in the measure, they were grouped together to calculate an overall score for engagement, rather than reporting on each separately. For this reason, it is impossible to determine if the relationship between teacher emotional support was the same or different for cognitive engagement and affective engagement. Furthermore, their measure of teacher support differed from other studies in that it was researcher observed rather than student reported. While the authors went to great pains to argue that the concept of challenge is subjective and therefore best reported by individual students, it appears they did not feel the same about the concept of teacher support. It is arguable that student perceptions of teacher support (or obstruction) might differ significantly from researcher interpretations of the same in video recorded lessons.

While not always intentional, teachers can behave in ways that obstruct rather than support student engagement in learning. Instrumental obstruction includes failure to respond to requests for help, undermining student effort and neglect. Emotional obstruction is related to

behaviours such as teasing and sarcasm. Interestingly, instrumental obstruction may not always impact negatively on student engagement. Strati, Schmidt and Maier (2007) argued that when there was a low level of challenge, students actually became more engaged as they had to work harder to figure things out for themselves, however, as the activity became more challenging and teachers were obstructing, engagement declined. The authors also reported that teacher behaviours that were emotionally obstructive had a negative effect on engagement at all levels of challenge, and even though the comments were often directed at individual students, the negative impact on engagement was seen across the class (Strati, Schmidt & Maier, 2017). The issue of instrumental obstruction and the unlikely finding that it may correlate with increased engagement when challenge is low is reminiscent of the work into ill-structured problems (Lodewyk, Winne, & Jamieson-Noel, 2009). Lodewyk, Winne and Jamieson-Noel (2009) found that students reported using more cognitive and meta-cognitive strategies - regularly associated with cognitive engagement - during ill-structured tasks as compared to working on well-structured tasks.

The role of peers

Less has been written about the role of peers in student engagement. Furrer, Skinner and Pitzer (2014) described the role that peers can play in supporting the needs for belonging, competence and autonomy. According to the authors, peers can support feelings of belonging when they show warmth and respect, talk and listen to each other, provide emotional support and share learning experiences. Peers support feelings of competence when they give and receive feedback, model academic competence, create shared goals, resolve conflict and provide help or advice to each other. Finally, peers can support autonomy when they try to understand each others' views, reflect on and challenge their own beliefs, share ideas, explain relevance to each other, and negotiate with each other. Both teacher-student relationships and student-student

relationships are significantly associated with student engagement (Certo et al., 2003; Vollet et al., 2017; Yang et al., 2018), particularly emotional engagement (Yang et al., 2018). Vollet, Kindermann and Skinner (2017) looked at the effects of both teacher involvement and peer group engagement on student engagement to determine how they might interact. They reported that peer group effects could be either positive or negative depending on the level of engagement of the peer group. The students who were reportedly most engaged were those that were supported by both their peers and the teacher, while the biggest declines in engagement occurred when students perceived the teacher to be uninvolved and they associated with disengaged peers. High teacher involvement was reported to partially protect students from associating with disengaged peers, similarly belonging to engaged peer groups partially protected students from low teacher involvement. In an earlier study, it was reported that highly motivated students were more likely to be part of peer groups that were also more motivated and less motivated students were more likely to be part of groups that were also less motivated (Sage & Kindermann, 1999). This could lead to a 'rich get richer' effect when students in motivated groups received approval from both their peers and the teacher for on-task behaviour, while students in less motivated groups received only teacher approval for on-task behaviour and also disapproval from their non-peer group when behaving in a disruptive or off-task way.

Patterns in student engagement

It has been widely reported that problems with engagement begin to emerge in the middle years of school (upper primary and early secondary), with declines in engagement and motivation occurring as students move through the schooling system (Gottfried, Fleming, & Gottfried, 2001; Marks, 2000; Wang & Eccles, 2012; Wigfield, Allan; Eccles, Mac Iver, Reuman, & Midgley, 1991; Wigfield et al., 2015). In addition to longitudinal studies that have explored

changes to engagement over time, are studies that explored more fine-grained variations in engagement within and across lessons, with the assumption that rather than being a stable trait, engagement is more state-like and prone to fluctuations from moment to moment (Shernoff et al., 2016; Shernoff et al., 2003; Shumow et al., 2013). These studies have reported that students' self-reported engagement fluctuated depending on the instructional method being used, with greater engagement reported during times when they were more active (group and individual work) as compared to times when they were more passive (e.g., listening to a lecture or watching a video) (Shernoff et al., 2003), greater engagement during non-academic subjects such as art and vocational education as compared to their academic subjects such as math and science (Shernoff et al., 2003), higher enjoyment and interest during science labs than other classroom activities but less challenge, concentration and perceived relevance (Shumow, Schmidt & Zaleski, 2013), and greater engagement when they felt supported within the learning environment (Shernoff et al., 2016). Such work has contributed to our understanding of the connection between teacher practices and student experiences of engagement, something that will be explored in more detail in subsequent sections of this review.

More recent work adopting a person-oriented approach rather than a variable-oriented approach has shown that while there might have been slight declines in engagement over time for the majority of students, some sub-groups experienced more significant declines in their engagement with the evidence suggesting students with special needs, psychosocial and academic difficulties are most at risk (Janosz et al., 2008). As with the addition of experience sampling techniques, this alternate approach to studying patterns in student engagement has contributed a more nuanced understanding of how student engagement might develop over time

for different students. This is an important step in being able to effectively intervene and target support where it is needed.

Engagement and learning

While engagement has often been described as a predictor of academic success (Appleton et al., 2008; Eccles & Wang, 2012; Wang & Degol, 2014), the relationship between engagement and learning remains somewhat unclear. Wolters and Taylor (2012) examined the overlap between engagement and the concept of self-regulated learning given that both are used to understand how students function within academic contexts. They described self-regulated learning as "an active, constructive process through which learners set goals for their learning and then work to monitor, regulate, and control their cognition, motivation, and behaviour in order to accomplish those goals" (Wolters & Taylor, 2012, p. 635). Similarly, engagement has been described as "a person's active participation in school-related endeavors" with additional components added to include the person's emotional and cognitive involvement as well (Wolters & Taylor, 2012, p. 636). Both concepts have been defined by the students' active involvement in their learning and it can be difficult to separate them when *using strategies associated with self-regulation* is a key aspect of what it means to be engaged at school and *being actively engaged* is an essential part of self-regulating. Boekaerts (2016) declared it "confusing - to say the least - that definitions of engagement explicitly include self-regulation strategies and that definitions of self-regulation identify active engagement before, during and after doing a learning activity as a key component" (p. 81).

Similar to the way that some position motivation and engagement, engagement has been described by some as an "umbrella term" under which self-regulation sits as a specific element to consider (Jarvela et al., 2016). Other similarities between self-regulated learning and engagement

are the focus on behavioural, emotional and cognitive processes, the existence of a variety of models and frameworks to describe them, and the belief that both are mediating processes that bridge the gap between contextual and personal factors on one hand and academic performance on the other (Fredricks et al., 2004). Arguably the greatest similarity between the two concepts is between cognitive engagement and the cognitive and meta-cognitive aspects of self-regulated learning, specifically the use of strategies to support learning. These include cognitive strategies for encoding and remembering information, as well as metacognitive strategies related to goal setting, planning, monitoring and reflecting on learning. The overlap between the concepts has been evidenced in studies that measured cognitive engagement by using items that are also used to measure self-regulated learning (Greene, 2015; Wolters & Taylor, 2012). For example, Greene (2015) discussed the inclusion of a subscale for self-regulation when measuring cognitive engagement in her research.

Some have argued for the integration of the concepts of self-regulated learning and engagement both theoretically and practically (Jarvela et al., 2016; Wolters & Taylor, 2012). However, not all are convinced that this is the way forward. Boekaerts (2016) suggested that the first step must be establishing what role both self-regulation and engagement play in the learning process and how they relate to each other before any attempts are made to integrate the concepts or treat them as analogous. In her words, rushing to combine the concepts before sufficient theorising has been established "would further increase the conceptual confusion, not only among engagement researchers, but also among our colleagues in mainstream psychology" (Boekaerts, 2016, p. 81). What impact this would have on practitioners is unclear but it is reasonable to assume that if researchers and educational psychologists have difficulty distinguishing between the concepts of self-regulated learning and engagement, then

practitioners might also be struggling with the same issues. This may be especially true given the importance placed on both concepts in current policy and curriculum documents (ACARA, 2012; AITSL, 2017).

Engagement as a pedagogical process

Kennedy (2016) identified the challenge of 'enlisting student participation' as one of five common and interrelated problems of practice teachers face. The problem arises from the fact that students are forced to attend school but cannot be forced to learn once there. Kennedy described three responses that students may have: actively engaging, actively resisting, or passively cooperating. Given the significant challenge of getting all students motivated and actively involved in each lesson, she argued it is possible that "many teachers must settle for an alternative goal of at least gaining their passive cooperation" (Kennedy, 2016, p. 11). In framing engagement (in the broadest sense) as a persistent problem of practice, Kennedy provided an alternative way of thinking about student engagement in the classroom, one that does not marginalise teachers to the periphery but instead situates them as active facilitators of students' engagement. Similarly, Hardré and Hennessey (2013) and Hardré and Sullivan (2008) positioned student motivation as a problem-solving task that the teacher must attempt to solve. While it is widely accepted that teachers have an important role to play in student engagement, less has been written about the intentional process of facilitating student engagement in classroom learning experiences.

Engaging students has been said to involve two distinct roles, the monitoring of student engagement and responding or intervening for student engagement (Furlong & Christenson, 2008; Lee & Reeve, 2012). Others have made a similar claim in relation to student motivation (Furrer et al., 2014; Hardré & Hennessey, 2013). While this may be theoretically sound,

empirical evidence of this process is limited, and has tended to focus on either the diagnosis or the intervention phase rather than the process as a whole.

Monitoring and diagnosing for engagement and motivation

In an interview study with 39 high school teachers, Hardré (2008) reported some teachers struggled to communicate the methods they used to diagnose student motivation but not a lack of confidence in their ability to do so, reporting that they 'just know' or that they use 'lots of ways' of diagnosing motivation without giving explicit details on the methods they use (p. 78). Having said that, teachers have described a variety of indicators used to determine students' motivation and/or engagement in classroom learning. The most commonly identified indicators are behavioural, including things such as being on task, participating, getting work done, and putting in effort (Barkaoui et al., 2015; Fredricks et al., 2016; Hardre, 2008; Hardré & Hennessey, 2013; Harris, 2008). The predominant focus on behavioural indicators for both engagement and motivation is not surprising given they are more easily observed by the teacher during daily classroom events. Asking students to engage in specific behaviours is common during a lesson (e.g., reading, discussing, listening, working), and teachers are well adept at looking for evidence that students are engaging as directed. Lee and Reeve (2012) argued that teachers used a combination of prior knowledge of student achievement and observable cues to infer behavioural, agentic and cognitive engagement but appeared to rely heavily on student achievement to estimate student motivation, rather than responding to any motivational cues from the student. Others have also discussed the use of student performance or achievement data to inform judgements of motivation (Bangert-Drowns & Pyke, 2002; Givvin, Stipek, Salmon, & Macgyvers, 2001).

In a qualitative study of teacher conceptions of engagement, teachers also reported indicators of emotional engagement, such as showing excitement, enthusiasm or enjoyment in what they are learning and indicators of cognitive engagement such as persisting, solving problems in different ways, and self-monitoring during learning tasks (Fredricks et al., 2016). It is worth noting that in the Fredricks et al. (2016) study, teachers were prompted to describe what disengaged students were doing, feeling, and thinking as a way of determining if their conceptions aligned with the three-dimensional construct described in the literature (i.e., behavioural, emotional, cognitive dimensions). Whether these indicators were used as part of teachers' monitoring of engagement within lessons or were merely inferred in response to specific questions asked by researchers is unclear. If they are used as indicators of engagement, the question remains as to what evidence they look for to determine if, for example, a student is enjoying learning or self-monitoring during learning tasks.

Several studies have looked at the accuracy of teachers' judgements of their students' engagement or motivation by comparing these with the students' self-reports. It has been reported that teachers vary in their ability to accurately estimate the engagement and motivation of their students (Givvin et al., 2001; Lee & Reeve, 2012). There have also been noticeable differences in teachers' ability to judge different aspects of student engagement, as seen when the psychological and emotional aspects of engagement are separated from the behavioural aspects (Lee & Reeve, 2012; Skinner & Belmont, 1993; Skinner et al., 2009). Lee and Reeve (2012) found teachers were generally able to estimate the engagement of their students but not their motivation, and others have reported that teachers were better able to judge the behavioural engagement of their students than their emotional engagement (Skinner & Belmont, 1993; Skinner et al., 2009). When asked to provide multiple ratings over a period of time, there is

evidence that teachers' become better at judging the negative emotions of their students (e.g., distress, frustration) but not other motivation dimensions such as confidence, enthusiasm or preference for challenging tasks (Givvin et al., 2001). Unsurprisingly, it is the directly observable aspects of engagement such as participation and on-task behaviours that are easier to judge, and the more hidden aspects such as emotions and internal motivations that are more difficult to determine.

According to Hardré (2008), Hardré and Hennessey (2013), and Hardré and Sullivan (2008), an additional aspect to diagnosis is determining the causal factors underpinning problems with motivation. That is, once a teacher has identified that a student is unmotivated, they must then determine why they are unmotivated to know how to respond. The authors reported that while teachers were generally confident in their ability to identify students who were unmotivated, they lacked confidence in their ability to determine the reasons behind that lack of motivation (Hardré & Hennessey, 2013). Teachers in several studies were asked to identify factors that influenced student motivation and engagement. Commonly cited factors included: perceived relevance or value of the content (Barkaoui et al., 2015; Hardré & Hennessey, 2013; Tadich, Deed, Campbell, & Prain, 2007), personal choice or laziness (Hardré & Hennessey, 2013), factors in their home life (Barkaoui et al., 2015; Hardré & Hennessey, 2013), aspirations or future focus (Hardré & Hennessey, 2013), peer influences (Hardré & Sullivan, 2008; Tadich et al., 2007), boredom (Tadich et al., 2007), and either too much teacher control or too little support (Tadich et al., 2007). More evidence is needed to determine if teachers regularly attempt to identify the causes behind disengagement as part of their diagnosis, or if their diagnoses remain at a simple binary level of engaged or disengaged, and how accurate their causal attributions are.

Lee and Reeve (2012) argued that while monitoring for engagement might be a natural part of teaching, the same does not hold true for motivation. Even if teachers explicitly encourage students to be enthusiastic or confident or interested in what they are learning, the indicators of that motivation would likely be behaviours indicative of engagement such as asking questions or being on-task as the motivation itself is not directly observable. Evidence has shown teachers are generally more adept and accurate at diagnosing student engagement than student motivation (Lee & Reeve, 2012). Given this and the close relationship that motivation and engagement have, Lee and Reeve (2012) argued that “teachers will profit more by being aware of, monitoring and responding constructively to their students’ engagement rather than their students’ motivation” (pp. 742-743). Doing so provides not only information about the student’s engagement but also indirect information about their motivation (Lee & Reeve, 2012; Skinner & Pitzer, 2012).

The question remains as to whether asking teachers to rate students’ general motivation or engagement, as part of a research study, is the same as diagnosing student engagement or motivation in the moment within a lesson. Arguably there are key differences. First, the former artificially separates the two phases of the process (diagnosis and intervention). Second, diagnosis of engagement within the real world of the classroom is rich with context and purpose. Diagnosis that is devoid of purpose or real world context appears more akin to a rating exercise, rather than a key step in a pedagogical process. Indeed, it has been reported that teachers were better able to judge the motivation of their students when given a specific teaching context (e.g., a recent unit on fractions) as opposed to rating their motivation more generally (e.g., motivation in mathematics classes) (Givvin et al., 2001).

Intervening for engagement

While teachers may be effective at diagnosing engagement, particularly behavioural engagement, they may not be as adept at intervening for engagement (Skinner & Pitzer, 2012) or as confident about intervening for motivation (Hardré & Hennessey, 2013; Hardré & Sullivan, 2008). For example, it has been reported that teachers often respond to perceived disengagement by withdrawing their support or increasing controlling behaviours such as coercion (Skinner & Belmont, 1993), which may lead to further disengagement in the student (Earl et al., 2017; Skinner & Belmont, 1993). A study of 277 elementary teachers in Cyprus reported that when teachers perceived that student failure was due to low ability they responded with sympathy but when they believed it was due to low effort they responded with more anger and a tendency to neglect the student and give up on them (Georgiou, Christou, Stavrinides, & Panaoura, 2002). This illustrates how the causal attributions that teachers make as part of diagnosing engagement or motivation influence their behaviours and interactions with the student. While it may be theoretically sound to link causal attributions with the selection of strategies to intervene for student motivation or engagement, the findings from Hardré and Sullivan's (2008) mixed methods study suggest this may not be the reality. Rather than selecting a strategy to target a perceived motivation problem, teachers were instead employing multiple strategies such as trying to connect with the student personally, establishing the relevance of what they are learning to their lives, and promoting aspirations such as jobs that connect with what they are learning in a 'shotgun approach' (Hardré & Sullivan, 2008). Both the qualitative and quantitative data indicated a lack of systematic knowledge in relation to student motivation and the qualitative data suggested the teachers "use strategies based on anecdote, experience, or some version of reasoned guessing" (Hardré & Sullivan, 2008, p. 2072). To date, we have limited information

about the process that teachers go through when diagnosing and intervening for student engagement during lessons, and whether or not they attempt to attribute reasons to the student behaviours they observe as part of that process.

Recommended strategies for engaging students

In a report into engagement in Australian schools, AITSL (2013) declared a noticeable lack of evidence-based strategies in relation to student engagement, making it impossible to provide teachers and schools with definitive advice on strategies to facilitate engagement. Likewise, in a review of the research Wang and Degol (2014) reported a lack of theory- and evidence-based preventative programs and acknowledged that preventative programs are often universal in nature and may not address the needs of individual students in the way a more targeted program might. This highlights a distinction that must be made between universal, one-size-fits-all engagement interventions and targeted interventions aimed at individual students. In addition, as many of the interventions described in the literature are aimed at preventing or treating disengagement from school (e.g., Finn & Zimmer, 2012; Reschly & Christenson, 2012) it begs the question whether this type of intervention is appropriate for facilitating engagement in classroom learning experiences. Is treating or preventing disengagement the same as promoting engagement? Is engagement merely the absence of disengagement or something qualitatively different?

Recommendations for facilitating engagement fall into two distinct categories. The first category consists of broad recommendations that are aimed at establishing optimally engaging learning environments and can therefore be considered universal in nature. In contrast, a second category of recommendations centre on supporting specific aspects of engagement such as interest, and can therefore be categorised as targeted interventions. Given the lack of definitive,

evidence-based engagement strategies, the recommendations that follow are based on a combination of empirical and theoretical work.

Universal strategies.

In her review of the literature, Harris (2010) argued that although there may be some agreement on the focus of engagement strategies, researchers often offer conflicting advice about how to implement these strategies. As many of these recommendations overlap with those made in the teacher effectiveness literature, it is difficult to determine how being an engaging teacher differs from providing high quality teaching (AITSL, 2013; Turner, Christensen, Kackar-Cam, Trucano, & Fulmer, 2014). In relation to classroom level engagement (as opposed to school engagement), the recommendations in the literature focus on establishing a learning environment where students feel both challenged and supported, where their needs for autonomy are balanced by adequate structure, and where they are provided with authentic and meaningful learning experiences.

Establishing positive relationships in the classroom. Ryan and Patrick (2001) argued that students are more engaged when they perceive the classroom as a place where their ideas and opinions are valued, where they have an opportunity to collaborate with their peers, and where they view their teacher as warm, caring and supportive. An aspect of teacher-student relationships that has received considerable attention in the literature is the use of autonomy supportive rather than controlling teacher practices as a facilitator of engagement. Teachers support students' autonomy by showing them respect, listening to them, valuing their perspective, nurturing their interests, curiosity and intrinsic motivation, providing a rationale for learning tasks, using non-controlling language, allowing sufficient time to learn, acknowledging and accepting negative emotions, and encouraging self-regulation (Reeve, 2011).

Ryan, Kuusinen and Bedoya-Skoog (2015) reported teachers felt less confident in their ability to effectively manage peer relations compared to classroom management and instruction. Teachers can encourage feelings of belonging and support positive relationships in their classrooms by modelling and encouraging mutual respect (Turner et al., 2014), teaching students to work together productively and supporting them to develop strategies for dealing with disagreements and disrespectful interactions (Linnenbrink-Garcia et al., 2011).

The learning environment. Along with establishing supportive and caring relationships, teachers influence the engagement of their students in the way they structure the learning environment, the instructional strategies they use and the tasks they provide. Learning experiences that provide optimal levels of challenge and support are said to be the most conducive to engagement (Perry, Turner, & Meyer, 2006; Shernoff et al., 2016). Challenge is a factor of both task characteristics and teacher expectations of the students, while support is related to practices such as scaffolding student learning, providing feedback to support learning, and offering encouragement. In addition, teachers are encouraged to provide meaningful and interesting tasks to support student motivation and engagement (Perry et al., 2006). Finally, providing opportunities for students to work together is advocated as a means of facilitating student engagement (Furrer et al., 2014).

Targeted strategies

Recommendations that fall into this category focus on narrow aspects of engagement rather than a more holistic notion of engagement. For example, improving social-behavioural engagement in small groups (Linnenbrink-Garcia et al., 2011) or improving the engagement of high-achieving students (Conner & Pope, 2013). They can be grouped according to three different aims: facilitating the engagement of specific groups of learners, facilitating specific

dimensions of engagement, and facilitating specific skills or motivational factors necessary for engagement. While a full and comprehensive account of the research relating to each of these aims is beyond the scope of this review, a discussion of each category follows, including examples from the literature to illustrate the breadth of research that might support educators in targeting specific engagement aspects. Whether or not educators have access to this research, or the time, skills and motivation to attempt to use it, is questionable.

Facilitating the engagement of specific groups of learners. Three examples will be discussed here to illustrate how the literature might be used to target the engagement of specific groups of students.

Engaging high-achieving students. Conner and Pope (2013) examined the engagement of students attending high-achieving schools, finding that while the students reported high levels of behavioural engagement, they reported lower levels of emotional and cognitive engagement. They argued that this lack of “full engagement” was associated with higher rates of stress and self-reported cheating behaviours. The authors recommended increased professional development opportunities for teachers to help them “make learning more interesting and enjoyable for students” (Conner & Pope, 2013, p. 1439). In addition, they suggested that teachers should be more explicit about the value and relevance of the work they assign to students to support students to find meaning in what they do. Finally, to improve students’ emotional engagement, they advised showing concern for and interest in students and offering support when it is needed. Unfortunately, such vague and general recommendations are of questionable value to teachers hoping to better facilitate the engagement of their high-achieving students, and it is difficult to see how this differs from general recommendations for effective teaching. What may be useful to teachers is the prompt to consider the engagement of their high-achieving

students more carefully in light of the findings of the study, particularly the students' cognitive and emotional engagement.

Engaging actively disengaged students. Few studies distinguish between active and passive forms of disengagement as distinctly different forms with different underlying causes. Earl et al. (2017) examined this in their study and reported that active forms of disengagement such as disruptive or disobedient behaviours are associated with perceived autonomy frustration. The authors offer little in the way of advice to teachers, beyond advising them to behave in less controlling ways. However, others have given more specific suggestions for autonomy-supportive teaching practices, and these practices are strongly aligned with recommendations for developing positive teacher-student relationships. Recommended practices include: avoiding controlling language (e.g., you should, you must), listening to students and encouraging them to communicate their interests and preferences, encouraging students to ask questions and justify their thinking, providing time and opportunities for students to work in their own way and at their own pace, encouraging self-evaluation and the use of feedback to support learning, and providing encouragement (Reeve & Jang, 2006; Turner et al., 2014).

Engaging passive students. As with the previous two examples, the research provides different perspectives on how teachers might facilitate more active engagement of passive students. Paulsen, Bru and Murberg (2006) reported a strong link between shyness and passivity in school, and described a negative relationship between perceived support from peers, parents and teachers and passivity. As passive students were more inclined to report low levels of support, the authors recommended that teachers work to establish warm and trusting relationships with students. They also advised teachers to organise their classrooms in ways that

encouraged students to participate, for example providing opportunities for students to work in safe and non-threatening small groups.

In contrast, Earl et al. (2017) argued that passivity in students could be the result of feelings that their competence and/or autonomy were being obstructed by the teacher. As before, the authors offer little in the way of advice for practitioners, but others have provided recommendations. Suggestions for supporting student autonomy have already been discussed, and added to this are suggestions for supporting students' feelings of competence, which include: setting appropriately challenging tasks, providing feedback and scaffolding to support students learning, encouraging effort and persistence, and emphasising improvement and learning from mistakes (Turner et al., 2014).

Facilitating specific dimensions of engagement. Research in this category focuses on specific dimensions of engagement and makes recommendations for supporting these dimensions, rather than recommendations for supporting engagement in a broader sense. For example, Ainley and Ainley (2011) advise that when students see a personal relevance to their lives in what they are learning, they are more likely to experience positive feelings of enjoyment and interest associated with emotional engagement. Others advise teachers to train students to work effectively with their peers and develop strategies for dealing with conflict as a way of facilitating social-behavioural engagement (Linnenbrink-Garcia et al., 2011).

Facilitating specific skills and motivational factors. In this final category, the emphasis is on developing specific skills necessary for engagement and addressing specific motivational factors related to engagement. Advice for supporting students' needs for autonomy, competence and relatedness have been discussed previously, and other aspects are also evident in this category. For example, advice for developing student interest (Ainley & Ainley, 2011; Hidi

& Renninger, 2006; Keller, Goetz, Becker, Morger, & Hensley, 2014), establishing relevance or task value (Certo et al., 2003; Turner et al., 2014), and supporting student self-regulation of learning and self-management (Duckworth, White, Matteucci, Shearer, & Gross, 2016; Panadero, 2017). There are two main emphases in this category. First, as student motivation is inextricably tied to their engagement in the classroom, it is necessary to attend to specific motivational needs and factors that might prohibit the student from engaging in learning experiences. Second, engagement in learning experiences may require specific skills, such as self-regulation, that need to be developed enough for them to be able to engage in the learning experiences as planned. In both cases, teachers are advised to consider factors that could become barriers to engagement in learning and take steps to address them prior to and within planned learning experiences.

While a conceptual link between assessing engagement and intervening for it has been made (Furlong & Christenson, 2008), this link is not obvious in much of the literature. Recommendations to provide more professional development, improve the quality of instruction, and provide teachers with more support remain sufficiently vague to be of any use to those wanting to improve their engagement practice. Each type of recommendation presents its own set of problems when trying to link the assessment of engagement with appropriate interventions. Broad, universal recommendations may be useful as a guide for establishing a generally engaging learning environment, but it is difficult to determine how they could be used to address a specific engagement goal identified by the classroom teacher (e.g., improving a student's willingness to attempt challenging tasks). Recommendations that target specific aspects of engagement might be more useful in this instance, but only if the teacher is able to first identify a specific goal or need impacting on the engagement of students. In both cases, the link between

diagnosing an engagement need and implementing recommended interventions is unclear, as is their potential usefulness in monitoring or diagnosing student engagement.

It is reasonable to suggest that the persistent lack of conceptual clarity and consensus in relation to the concept of engagement has prohibited a synthesis of the research that might support efforts to provide clear guidance about effective strategies for facilitating student engagement in classroom learning. Added to that is a paucity of research into the pedagogy of engagement. It is possible that these things together have prevented efforts to translate research findings into something that is relevant and useful to teachers' daily work. As a step towards being better equipped to bridge the gap between research and practice, an exploration into teachers' real world experiences of engaging students in classroom learning experiences will follow.

The teachers' perspective on student engagement in learning

While it has long been accepted that teachers have an important role to play in facilitating student engagement, efforts to incorporate their voice in the literature have largely been limited to asking them to rate the engagement of their students using researcher defined conceptual and theoretical lenses. To date we have limited evidence of how this compares to teachers' own conceptions, beliefs and personal theories in relation to student engagement.

It is generally agreed that teacher beliefs exist as part of a system (Fives & Buehl, 2011), and with that in mind, this exploration includes teachers beliefs about engagement, motivation and learning, as well as their beliefs about their role in student engagement. A considerable body of work exists examining teacher beliefs about teaching, and to a lesser extent learning. Their beliefs about student engagement and motivation appear largely untouched apart from a handful of studies that will be discussed below.

Teacher beliefs about learning

In a recent systematic review of the literature on teachers' beliefs about teaching and learning, Fives, Lacatena and Gerard (2014) noted the "overwhelming tendency to ignore teachers' beliefs about learning in favor of examining their beliefs about teaching", arguing the two should be treated as distinct beliefs with beliefs about learning acting as "the foundation" for beliefs about teaching (p. 261).

There are two main approaches to studying beliefs about learning: the phenomenographic approach and the epistemological approach. Phenomenographic studies follow from the work of Ference Marton and his colleagues (Marton & Saljo, 1976; Marton, 1981; Marton, Dall'Alba, & Beaty, 1993). Their work described a range of different conceptions of learning that encompassed both quantitative notions (increasing knowledge/skills, memorising and reproducing) and more qualitative notions (understanding, seeing something in a different way, and changing as a person). This work focused primarily on the conceptions of learners about learning.

An alternative approach to studying beliefs about learning has come from the field of epistemology research, and in particular the work of Schommer-Aikens (Schommer-Aikens, 2004, 2012). Along with beliefs about knowledge and knowing, her Epistemological Belief System includes beliefs about the speed of learning (quick or gradual) and beliefs about the ability to learn (fixed at birth or improvable). The beliefs of individuals are described as ranging on a continuum from simple or naive to complex or sophisticated. It is possible to make connections between phenomenographic and epistemological research, with more simplistic epistemological beliefs aligning with more surface level or quantitative notions of learning, and

more sophisticated epistemological beliefs being similar to deeper, qualitative conceptions of learning (Brownlee, 2001).

There is evidence to suggest that teachers may conceive of their own learning and student learning in different ways (Bolhuis & Voeten, 2004; Light & Calkins, 2014; Markley, Miller, Kneeshaw, & Herbert, 2009). For this reason, it is important to consider the way that researchers frame their questions to teachers in relation to beliefs about learning as this may affect any attempt to connect teachers' beliefs and their approach to engaging students in classroom learning opportunities. For the purposes of this review, and in light of the above, the focus will be on studies where teachers are asked about student learning within the context of their classroom, as well as studies where this is the implied focus.

Several studies described conceptions of learning that align roughly with previous work of Marton and his colleagues (Boulton-Lewis, Smith, McCrindle, Burnett, & Campbell, 2001; Bruce & Gerber, 1995; Keogh, Cook, & Bruce, 1994; Prosser, Trigwell, & Taylor, 1994). Just as researchers have often treated teaching and learning as a single construct, there is evidence to suggest teachers may not distinguish between the two concepts (Trigwell & Prosser, 1996). Although others have argued teachers may hold separate beliefs about teaching and learning, but these beliefs may not align with each other (Boulton-Lewis et al., 2001; Lin, Lee, & Tsai, 2014). For example, Lin, Lee & Tsai's (2014) Taiwanese high school teachers generally reported higher-level conceptions of learning science, but their students tended to view learning as more about memorising, practicing and reproducing. The authors suggested that this may reflect a disconnect between what the teachers believed about learning science and how they went about teaching science within their classrooms. While some studies have reported teachers favoured more traditional notions of learning that focused on acquiring knowledge, memorising,

practicing and reproducing (Boulton-Lewis et al., 2001; Feyzioglu, 2012; Martínez, Sauleda, & Huber, 2001; Tsai, 2002), Brown, Lake and Matters (2008) found that teachers held multiple beliefs about learning that encompassed both quantitative (e.g., reproducing, memorising) and qualitative conceptions (e.g., making meaningful connections, interpreting) with the qualitative conceptions being more dominant.

Teachers may have trouble describing how learning happens, preferring to focus instead on the outcomes of learning rather than the process (Prosser et al., 1994). In many studies, teachers described learning as a passive event that involves taking in knowledge through listening, looking, and taking notes (Feyzioglu, 2012; Hora, 2014; Levin & Wadmany, 2006; Light & Calkins, 2014; Mulhall & Gunstone, 2012; Tsai, 2002; Waeytens, Lens, & Vandenberghe, 2002). Others viewed learning as sequential and saw the surface level acquisition of facts as a pre-condition to deeper level thinking and constructing of knowledge (Hora, 2014; Light & Calkins, 2014). Finally, some described it as a non-sequential and active process of collaborative knowledge construction (Light & Calkins, 2014; Mulhall & Gunstone, 2012; Waeytens et al., 2002). From these findings, it appears there may be both a lack of clarity and a lack of consensus in teachers' understanding of how learning happens.

Waeytens, Lens and Vanderberghe (2002) explored the conceptions that a group of secondary teachers held about 'learning to learn'. The majority believed learning to learn was only necessary for younger students or when there were problems with learning. A smaller group of teachers disagreed believing that learning to learn was a priority and served a developmental function in enabling students to learn beyond the classroom. Similarly, other studies have explored teachers' understandings of self-regulated learning, reporting that while teachers are generally favourable to the concept of self-regulated learning, they have a limited understanding

of what it is and how it is supported in the classroom (Dignath-van Ewijk & van der Werf, 2012; Spruce & Bol, 2015).

Beliefs about the role of the teacher and role of the students in learning. As previously outlined, generally studies make a distinction between beliefs that position students as passive participants or active participants in the learning process. In contrast, Hora (2014) reported that the majority of teachers in his study expressed a combination of these beliefs. Bolhuis and Voeten (2004) found while teachers generally agreed that students were capable of working on their own they appeared torn between whether the students should take the lead in learning or the teacher should be in charge. It is possible that this reflects a belief that both approaches are appropriate at different times and in different situations, and that a dichotomy is not the best way of describing teacher beliefs in relation to learning (Brown et al., 2008).

Although there are only a few studies that investigated whether teachers believe learning to be an individual or a social process, evidence of both views has been reported (Bay, Faruk Vural, Demir, & Bağceci, 2015; Vedenpää & Lonka, 2014), and may reflect a similar situation where a dichotomous conception of these beliefs does not adequately represent the way teachers think about learning.

Teacher expectations for student learning. The field of research into teacher expectations might also shed some light onto the beliefs that teachers hold about students' potential for learning. Teacher expectations have been frequently investigated and generally refer to expectations teachers have for students' future achievement considering their current level of development, rather than their expectations for student engagement in learning. There is evidence that teacher expectations influence student achievement, behavioural and socio-psychological outcomes (Rubie-Davies, 2006; S. Wang, Rubie-Davies, & Meissel, 2018). Most

commonly research has focused on teacher expectations for individual students, however there is evidence in more recent work that teachers may hold class level expectations for their students that influence their teaching practice and their interactions with students within the classroom.

Rubie-Davies (2007) positions expectations as a teacher-oriented construct, relating to their achievement expectations for their students. From this perspective, some teachers were identified as having high expectations for all students while others had low expectations for all of their students. These teachers were also found to differ in their beliefs and practices, and the influence these had on the classroom climate (Rubie-Davies, 2007). Rubie-Davies identified beliefs and practices common to high and low expectation teachers that might provide some insight into the expectations teachers have for how students should engage in learning within the classroom. Most notably, high expectation teachers encouraged students to work together, supported student autonomy by giving them choices in regard to tasks, attempted to incorporate student interests into the planned learning experiences, used more formative assessment to monitor student progress and provide feedback, and set clear goals with students for their learning. In contrast, low expectation teachers were more controlling, giving students few choices in regard to their learning, used more summative than formative assessment, and monitored the progress of students less frequently (Rubie-Davies, 2007). There are many similarities in the recommendations for promoting student engagement and the reported practices of high expectations teachers, and it may be that teachers who hold high expectations for what their students will achieve also have high expectations for how they will engage in classroom learning experiences to reach those achievement goals. To date, it appears there has been no investigation into teachers' expectations for student engagement within learning experiences.

Such an investigation might be useful in understanding the relationship between teachers' engagement related beliefs, engagement practices and student outcomes.

Teacher beliefs about student engagement and student motivation. While there has been an abundance of research into student engagement and student motivation, very few have explored the way teachers conceptualise and operationalise these terms in their day-to-day work with students. This is an important gap in our understanding of how student engagement is positioned and acted upon in the real world of the classroom, and any effort to improve teacher practices aimed at facilitating student engagement will benefit from an awareness of teachers' current practices and thinking in relation to the concept.

Conceptions of engagement. Although teachers generally believe in the importance of engagement to teaching and learning, they may find it difficult to define and describe due to its broadness, variability and dependence on context (Barkaoui et al., 2015). Fredricks et al. (2016) interviewed Math and Science teachers to examine their perceptions of engagement and disengagement. Both students and teachers conceptualised engagement as having multiple dimensions that were aligned with existing frameworks (behavioural, emotional, and cognitive dimensions), there was also evidence of a fourth dimension that described social aspects of engagement. These included social-behavioural indicators (e.g. working with peers, interacting with others, explaining, helping, and sharing ideas), as well as social-cognitive indicators (e.g. understanding different perspectives, teaching peers, and building off the ideas of others). There were some differences in the conceptions of teachers and students, with students making little distinction between engagement and achieving, perhaps as a reflection of the larger education system that emphasises outcomes such as grades. Teachers were more likely than students to mention cognitive indicators and indicators relating to following rules and showing respect, and

less likely to mention working with peers. Teachers in the study expressed the idea of compliance as a basic requirement with deeper levels of engagement being characterised by understanding and being invested in learning. The belief that engagement has different levels has been supported in other studies of teacher beliefs (Bangert-Drowns & Pyke, 2002).

The work of Harris (2008, 2010, 2011) examined the conceptions that 20 Australian secondary teachers held about engagement. Following the phenomenographic approach, the study described six conceptions of engagement:

- Behaving - participating and following rules
- Enjoying - showing interest and enjoyment in school
- Being motivated - showing motivation and confidence
- Thinking - involved in thinking
- Seeing purpose - having purpose for learning
- Owning learning - valuing learning, showing desire to learn

While acknowledging links with the existing three-dimensional framework favoured in the literature (i.e. behavioural, emotional, and cognitive engagement), Harris (2011) argued that the proposed categories represented more closely the way that these teachers thought about student engagement and the aspects of engagement they considered to be important. Others have described the variability in the way teachers noticed different behaviours and interpreted them in different ways (Barkaoui et al., 2015; Ravet, 2007). This brings to mind the discussion of Fives and Buehl (2011) in relation to the filtering and framing functions that teacher beliefs can play. It may be that individual teachers have developed their own personal theories of student engagement, and this influences what they look for within the classroom and also how they interpret student behaviour within lessons.

Harris (2011) noted that teachers tended to focus on observable behaviours as evidence of engagement, even though the final three categories described more internal processes and motivations related to the goal of learning. Learning was only explicitly linked to engagement in Harris' final two conceptions (Seeing purpose and Owning learning), while remaining implicit in the other four. Just how (or if) the teachers connect these four categories of engagement with learning is unclear. As the study did not examine teachers' conceptions of disengagement, it is also unclear whether the teachers held different ideas of what it means for students to be disengaged.

Beliefs about student disengagement. Looking at the indicators and descriptions provided across studies, it appears that teachers conceive of disengagement in several different ways. These have included both the absence of something desirable (e.g., motivation, participation) (Fredricks et al., 2016; Ravet, 2007) and the presence of an undesirable behaviour (e.g., goofing around, switching off) (Angus et al., 2010; Fredricks et al., 2016; Tadich et al., 2007), as well as possible reasons for the disengagement (e.g., boredom) (Fredricks et al., 2016).

There has been support amongst teachers that engagement is contextual, with some schools experiencing more pervasive levels of disengagement than others and some children more susceptible to engagement problems due to external factors that impact on the student at school (e.g., family violence, poverty)(Angus et al., 2010; Barkaoui et al., 2015). Engagement is also believed to vary over time and depending on the topic, activity (Barkaoui et al., 2015) or particular domain (Fredricks et al., 2016). While some teachers separated engagement and motivation from learning, others saw engagement as an inherent part of learning (Lotter, Rushton, & Singer, 2013), and problems with engagement and motivation were believed to negatively impact on student learning (Angus et al., 2010; Tadich et al., 2007).

Western Australia's Pipeline Project (Angus et al., 2010), which focused on 'unproductive behaviours', reported four distinct categories of behaviour:

- Productive - the absence of unproductive behaviours
- Disengaged - low persistence, easily distracted, limited effort, lack of participation
- Low-level disruptive - disruptive, attention seeking
- Uncooperative - unmotivated, inattentive, aggressive, non-compliant, abusive

Interestingly, the teachers in this study did not associate low-level disruptive behaviours with being disengaged and perceived minimal impact on the students' achievement levels.

Although the majority of students fell in the Productive group, the category was defined only by the absence of unproductive behaviours and there was no detail provided about the behaviours of this group of students. In a subsequent study of 1380 teachers in South Australia, Sullivan, Johnson, Owens and Conway (2014) built on the work done in the Pipeline Project, with teachers reporting high frequencies of disengaged and low-level disruptive behaviour and less frequent aggressive and antisocial behaviours. The behaviours with the highest percentages of responses in the 'several times daily' category were: talking out of turn (50%), avoiding doing schoolwork (43%), disengaging from classroom activities (41%), disrupting the flow of a lesson (33%), and moving around the room unnecessarily (27%). Teachers identified the first four as the most difficult classroom behaviours to manage. The authors of both of these studies called for increased attention to developing an awareness of student engagement and the strategies that may be used to promote it within classrooms. However, the lack of clarity into what is meant by student engagement (defining it merely by the absence of disengaged behaviours), would make any attempt to identify strategies somewhat problematic and suggests they may be talking about behaviour management rather than facilitating engagement in learning.

Perceived barriers to student engagement and motivation. Teachers have identified a range of perceived barriers to student engagement and motivation, including:

- External factors relating to social issues or home life (Angus et al., 2010; Barkaoui et al., 2015; Hardré, 2008; Hardré & Sullivan, 2009; Ravet, 2007; Rich & Shiram, 2005)
- Low self-esteem or confidence (Angus et al., 2010; Hardré, 2008; Ravet, 2007)
- Lack of aspirations (Hardré, 2008)
- Lack of interest (Hardré, 2008)
- Not seeing the relevance of the content (Barkaoui et al., 2015; Hardré, 2008; Tadich et al., 2007)
- Peer pressure (Hardré & Sullivan, 2009; Tadich et al., 2007)
- Inability to deal with the increased freedom and responsibility provided in some contexts (Angus et al., 2010; Tadich et al., 2007)

The strong emphasis on external factors suggests that teachers may have doubts about their ability to successfully intervene in relation to motivational and engagement problems (Hardré, 2008). However, in a case study of Year 8 teachers Tadich et al. (2007) reported that teachers identified a number of teacher level factors that are more within their control. The largest constraint on implementing highly engaging practices, such as allowing students opportunities to follow their interests and exercise a level of agency in their learning, was a perceived demand to get through the required curriculum. In order to meet this demand, some teachers felt the need to take control and impose a high level of structure to maximise productivity and manage the time constraints they were under. Unfortunately, this came at a cost of 'de-energising' students and rising disengagement (Tadich et al., 2007, p. 265).

Beliefs about engaging students in learning. In Harris' (2011) phenomenographic study of 20 secondary teachers, she examined their beliefs about promoting student engagement. She found three conceptions to describe the teachers' approach:

- Delivering - prescribing activities and discipline
- Modifying - making adjustments to cater to students interests, motivation, and ability
- Collaborating - working with students to create a curriculum to suit the student

These conceptions of *how* to engage students were then linked to the conceptions of *what* engagement is, as described earlier. The first conception (Delivering) aligns with conception of engagement as Behaving. Modifying was linked to the conceptions of Enjoying, Being motivated and Thinking. Finally, Collaborating was aligned with conceptions of students Seeing purpose and Owning learning (Harris, 2011). Others have reported a tendency for teachers to favour making modifications to existing practices rather than making significant changes to their approach to teaching (Tadich et al., 2007).

Some have argued that teachers appeared to develop a style and set of strategies for motivating students as a general approach that represented their beliefs about motivation rather than a response to their perceptions of students' motivation. For example, Reeve et al. (2014) explored the beliefs that underlie teachers' motivating style, finding that teachers advocated the approach they take because they saw it as effective, easy to implement and typical of those around them. While it has been typically common to look at autonomy-supportive and controlling styles as dichotomous, some teachers appeared to view them as independent, possibly seeing them as representing a range of strategies for motivating students, rather than just having an either or approach. Teachers have advocated a range of strategies for engaging students that align with recommendations in the literature. These include:

- Having high expectations and setting challenging but achievable tasks (Angus et al., 2010; Barkaoui et al., 2015; Pickens & Eick, 2009; Wall & Miller, 2015)
- Appealing to student interests and attempting to make the work practical and relevant (Angus et al., 2010; Barkaoui et al., 2015; Hardré, 2008; Hardré & Sullivan, 2008; Pickens, Melanie and Eick, 2009; Wall & Miller, 2015)
- Building relationships through praise, humour, encouragement, and support (Barkaoui et al., 2015; Wall & Miller, 2015; Wiesman, 2016)
- Giving students choice (Barkaoui et al., 2015; Tadich et al., 2007; Wall & Miller, 2015)
- Showing enthusiasm for the subject being taught (Barkaoui et al., 2015; Pickens & Eick, 2009)

There were also some strategies that teachers advocated that may be considered more controlling than autonomy-supportive, including: coaxing, persuading and negotiating cooperation (Angus et al., 2010), and the use of reward systems (Angus et al., 2010; Hardré, 2008).

The relationship between teacher beliefs about engagement and their engagement practice. Due to the limited studies in the area of teacher engagement beliefs, the relationship between teacher engagement beliefs and their engagement practices is yet to be determined. Work done in relation to teacher beliefs about learning is divided, and it is worth questioning what impact general beliefs about learning are likely to have on the teachers' day-to-day interactions with students, with inconsistencies reported between these beliefs and the teacher's approach to teaching (Boulton-Lewis et al., 2001; Lin et al., 2014; Trigwell & Prosser, 1996;

Tsai, 2002). Whether the same inconsistencies are found between teachers' beliefs about student engagement and their engagement practices remains to be explored.

What do we know from the literature?

Research into the concept of student engagement has been abundant over the last two decades, and continues to capture the interest of researchers and practitioners alike for its association with desirable outcomes such as achievement and academic success, as well as its perceived benefits for the social-emotional wellbeing of students. Despite this attention, researchers are yet to agree on how to define the concept, nor how to describe its relationship with other constructs such as motivation and learning. This persistent lack of clarity has hindered efforts to synthesise the mountain of engagement research and some in the field have urged for a return to theorising about the concept rather than the continued push to measure it (Boekaerts, 2016; Eccles, 2016). Much of the work done in the field has been focused on measuring student engagement in different contexts (e.g., high achieving schools, low SES schools, transition from primary to secondary) and describing its relationship with other concepts such as achievement, teacher practices, and social skills. While this work has provided some insights into how student engagement might be facilitated in the classroom, researchers have yet to adequately study the daily pedagogical process of engaging students in classroom learning experiences. This includes the teacher practices that aim to involve students, but also the ongoing social process of establishing and maintaining classroom norms for how students will be engaged in learning within the context of that classroom.

Understanding the context in which student engagement occurs is an important factor in understanding the engagement itself. There have been very few studies that have provided an insight into the way teachers conceptualise student engagement. Based on the limited work

discussed here, it seems teachers perceive different levels of engagement (and disengagement) that range from anti-social and uncooperative behaviour to high levels of self-directed learning. It is also clear that teachers feel a need to implement practices designed to promote student engagement, and are able to describe a range of possible strategies for doing so. However, they may lack confidence in their ability to do so effectively. Finally, there is evidence to suggest that teachers' vary in their interpretations of student behaviour, the inferences they make about student engagement and motivation, and their decisions on how to intervene.

Why is this of value and how would it benefit?

Few would argue that teachers play an important role in student engagement in classroom learning. As Strati, Schmidt and Maier (2017) described it:

The teacher plays a prominent role in creating the conditions for engagement and learning to occur. This is evident through the choices the teacher makes regarding the instructional behaviors he or she engages in during the lesson (i.e., support and obstruction), and through the degree to which the chosen content challenges students to engage. As such, teacher instructional behaviors can foster or hinder students' engagement at multiple time points throughout a lesson. (p.132)

Despite acknowledging the importance of the teacher, engagement researchers have focused most of their attention on the students and subsequently we know very little about how teachers attempt to engage and motivate their students to learn in the classroom.

While it is true that researchers have identified many factors that influence learning, motivation and engagement, it is questionable whether efforts to translate these findings into practice have been successful. Some have gone so far as to claim that, "much of the knowledge amassed has little utility value to teachers" (Shernoff et al., 2016, p. 59). It is possible that efforts

to translate the findings of engagement research have been hindered by the gap in our understanding of what it means to engage learners in the context of the classroom, and there have been calls for more research into the interactions between students and teachers in the classroom as a way forward in our efforts to support those hoping to facilitate student engagement (Vollet et al., 2017).

Improving the effectiveness and confidence of teachers in their attempts to engage their students in learning experiences each day requires researchers to support both the diagnostic and intervention aspects of that role; as well as improved translation of research findings into something that is relevant and appropriate to the realities of the job. As a step towards being better equipped to bridge the gap between research and practice, an exploration into teachers' real world experiences of engaging students in classroom learning experiences will follow. This will include exploring their beliefs about student engagement and student learning, their perception of their role in engaging students, their expectations for student engagement within lessons, and the way engagement is operationalised within classrooms.

Chapter 3: Methodology and Research Design

The previous chapters presented an insight into the persistent challenge of engaging students in learning within the context of the classroom, and the limitations of current efforts to connect research to teachers' engagement practices in the classroom. As a way forward in connecting engagement research to engagement practice, this research aimed to address the identified gap in our understanding of how teachers conceptualise and operationalise the concept of student engagement in the real world of the classroom. This chapter describes the design adopted by this research to address that gap. The first section of the chapter discusses the methodology used in the study, the stages by which the methodology was implemented, and the research design. The second section details the participants, data collection procedures and data analysis procedures for Phase One and Phase Two of the research. Finally, the last section discusses the ethical considerations of the research and its limitations.

The research was guided by the following broad research questions:

RQ1: How do upper primary teachers conceptualise student engagement in learning?

RQ2: How is the concept of student engagement operationalised within classroom learning experiences?

It should be noted that some figures and tables presented in this chapter are repeated in the manuscripts that follow in Chapters 4, 5 and 6 for the purposes of completeness.

Methodology and research design

While there is some evidence to suggest teachers hold a range of beliefs about student engagement and student learning, there is little in the research literature to help us understand how teachers think about the concept of student engagement or how they attempt to facilitate the engagement of students in their classrooms. The predominant approach to studying student

engagement has been correlational work employing student self-report or teacher-report surveys underpinned by motivational theories such as SDT or engagement frameworks such as the Fredricks et al. (2004) framework. Whether these theories and frameworks align with the way teachers think about engagement is unknown and cannot be assumed. As such, this work adopted an exploratory approach that aimed to develop a model representing the teachers' perspective rather than imposing existing models and theories during the design phase.

Methodology

The aim of this research was to better understand the lived experience of the teachers, including their beliefs about engaging students in classroom learning, their experiences of student engagement, and their approaches to engaging students in the classroom. As such, the research is underpinned by certain epistemic assumptions. Firstly, it is understood that individual teachers will have their own interpretations of the concept of student engagement, and that their interpretation is a product of their previous experiences in and out of the classroom. Secondly, the concept of student engagement may be operationalised in different ways in different classrooms. Finally, the concept of student engagement may be interpreted and experienced in different ways by different students (whether in the same class or in different classes).

Research Design

The research was conducted in two phases and employed an exploratory sequential mixed methods design as illustrated in Figure 1. This design emphasises the qualitative data and is often used to explore a phenomenon, which will then inform the development of an instrument (Creswell, 2012).

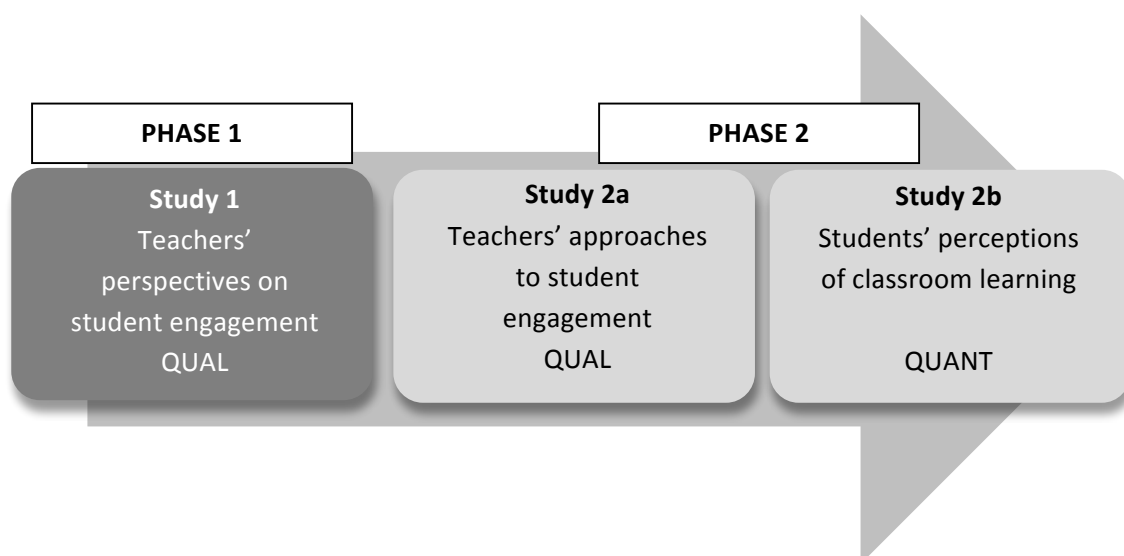


Figure 1. *Design of the research project.*

According to Creswell (2012), “Researchers use this design when existing instruments, variables, and measures may not be known or available for the population under study” (p. 543). An advantage of this approach is that it allows for the development of measures that are grounded in the data collected from the target population, rather than imposing pre-determined categories that may or may not align with the target populations’ perspective. In relation to the concept of student engagement, the lack of research into teachers’ engagement beliefs and practices did not support the use of existing tools or existing theory from which to base the study, therefore the research began with an inductive, theory building phase. This was followed by a deductive, theory-testing phase.

Ethics approval

The research studies conducted in his thesis were approved by the Melbourne Graduate School of Education Human Ethics Advisory Group in three separate ethics applications (Study 1 application ID 1646921.1, Study 2a application ID 1748599.1, Study 2b application ID 1851349.1) and ratified by the University of Melbourne Humanities and Applied Sciences Human Ethics Sub-Committee. A copy of each approval letter is found in Appendix A.

Throughout the research project, no recruitment or data collection was undertaken until ethics approval had been granted.

Study 1 - Exploring teacher beliefs about student engagement

The first phase of the research study aimed to answer the following research questions:

RQ1: How do upper primary teachers conceptualise student engagement in learning?

- How do teachers describe student engagement?
- What indicators of student engagement do teachers describe?
- How do teachers describe the relationship between student engagement, student motivation to learn, and student learning?

RQ2: How is the concept of student engagement operationalised within classroom learning experiences?

- How do teachers describe their role in engaging students?
- What strategies do they advocate for facilitating student engagement?

As discussed earlier, the lack of existing measures to capture teachers' perspectives on the concept, suggested a qualitative, exploratory approach would be the most appropriate choice. Creswell (2012) advises that qualitative research is best suited to research problems where the literature does not provide enough information about the key concept and there is a need to explore the concept from the perspective of the participant. The aim of this initial phase of research was to explore teachers' perspectives on student engagement, identify emerging themes, and develop a model representing teacher beliefs about student engagement in the classroom that could be tested and further developed in Phase Two.

Participants

In qualitative research, the aim is not to generalise findings to a larger population. Instead, the intent is to explore a phenomenon in depth from a particular perspective. Therefore, participants are selected based on their ability to provide an insight into the phenomenon being studied. This sampling approach is described as purposeful sampling and can apply to both individuals and sites (Creswell, 2012). In this study, the phenomenon being explored was student engagement in the classroom, and the perspective being sought was that of the upper primary classroom teacher. The decision to focus on upper-primary teachers was made for two reasons. First, the literature describes the transition between upper-primary and secondary school as a time when students may become less engaged with school and with learning (Wang & Eccles, 2012; Wigfield, Allan; Eccles et al., 1991). Second, the researcher's previous experience in primary schools provided an understanding of the context of a primary classroom and the realities of teaching within that context. Understanding common procedures, teaching strategies and jargon associated with the primary school context meant that interview questions and prompts could be phrased in a way that was easily understandable for the participating teachers, and that interview responses could be considered within the larger context of primary education in Australia.

A second consideration in relation to the sampling approach for this study was the desire to capture a range of different perspectives. Creswell (2012) describes this type of purposeful sampling as maximal variation sampling. Diversity was sought in the sample in both the teachers and the schools in which they were employed. Participants were 15 upper-primary teachers from six Victorian schools. Table 1 shows the demographic data relating to the schools. The schools included Government and Catholic schools from both rural and metropolitan areas of Victoria.

Table 1*Participating schools*

School	Sector	ICSEA
Rural 1	Catholic	Average
Rural 2	Government	Low
Metropolitan 1	Government	High
Metropolitan 2	Government	Low
Metropolitan 3	Government	High
Metropolitan 4	Catholic	High

In addition, diversity was sought in terms of the socio-economic demographic of the school community. In Australia, a measure of socio-economic background in relation to school communities is the Index of Community Socio-Educational Advantage (ICSEA). ICSEA is a scale that represents educational advantage and takes into account student-level variables relating to parent occupation and education level, as well as school-level variables relating to the percentage of Aboriginal enrolments, the remoteness of the school, and the percentage of disadvantaged students who have language backgrounds other than English (ACARA, 2011).

As with the selection of schools, diversity was sought in the participants of this study. Participants represented a range of ages, experience levels and gender, as seen in Table 2. It is not uncommon in Victorian schools to have composite classes that combine year levels, and this is reflected in the demographics.

Table 2*Participant demographics*

Participant	School	Gender	Age	Experience	Year level
Kathy	Rural 1	Female	50-54	29 years	5/6
Jeanette	Rural 1	Female	40-44	23 years	5/6
Nicole	Rural 1	Female	30-34	10 years	5/6
Tracy	Rural 1	Female	35-39	12 years	5/6
Rob	Metro 1	Male	30-34	1 year	5
Eliza	Metro 1	Female	30-34	3 year	5
Kellie	Metro 1	Female	25-29	2 year	5
Nick	Metro 2	Male	35-39	8 years	5/6
Ana	Metro 2	Female	25-29	5 years	5/6
Tina	Metro 2	Female	25-29	1 year	5/6
Mark	Metro 3	Male	40-44	10 years	4/5/6
Emily	Metro 3	Female	30-34	7 years	4/5/6
Dee	Metro 4	Female	45-49	25 years	6
Andrew	Rural 2	Male	40-44	14 years	5/6
Sarah	Rural 2	Female	35-39	12 years	5/6

There is evidence to suggest teacher beliefs alter over time in response to their experiences (Brownlee, 2003), therefore it was deemed important to include teachers at different stages of their careers to better capture any differences in beliefs that might be related to experience. Participants were assigned a pseudonym to protect their anonymity.

Data collection

Semi-structured interviews were conducted with each teacher to explore their beliefs about learning, student motivation to learn, and student engagement in learning. In-depth, open-ended interviews are recommended when the aim is to capture the meanings that participants make of their experiences in their own words (Marshall & Rossman, 2006; Patton, 2002). It would have been possible to use an open-ended questionnaire to gather this information, and the merits and limitations of questionnaires and interviews were considered during the design phase.

Open-ended questionnaires can be anonymous and therefore might encourage greater honesty than an interview where participants might opt to respond in ways they deem socially desirable rather than a true representation of their beliefs, attitudes or behaviours (Creswell, 2002). A questionnaire is also less time and resource intensive, and may therefore allow for a larger sample size. There are disadvantages to questionnaires, the response rates for questionnaires are often low, respondents may opt not to answer questions or they may interpret the question in a different way than anticipated (Cohen et al., 2011). In addition, the written responses may vary in length and detail, and may not provide the richness and depth that is characteristic of qualitative research (Creswell, 2002). In contrast, semi-structured interviews allow the interviewer to personalise the interview by asking probing and follow up questions based on the response given (Cohen et al., 2011).

An interview protocol is recommended to ensure that major touch points are addressed within interviews, providing a degree of comparability across interviews, while remaining sufficiently open to allow for exploration of ideas and themes as they arise (Miles & Huberman, 1994; Patton, 2002). Key questions in the protocol included: *How would you describe student engagement? How do you know when a student is engaged in learning? How do you know when students are not engaged? Can you describe a time when students were especially engaged? How would you describe the relationship between student engagement, student motivation, and student learning?* The full interview protocol is found in Appendix B.

Demographic data were collected via an online survey prior to the interview. Interviews were conducted at the teacher's school, at a time convenient to the teacher, and permission to audio record the interview was gained prior to commencing the interview. Interviews ranged in length from 30 to 66 minutes (average 48 minutes), depending on the time each teacher had

available, as well as their enthusiasm for sharing their experiences and beliefs about student engagement. Most teachers were eager to share their experiences and required little prompting to share in-depth and detailed examples from the classroom to support their responses. Recordings were either transcribed by the researcher (n=6) or sent to an external organisation for transcription (n=9). When interviews were transcribed by an external transcription service, they were checked for accuracy and amended by the researcher as needed. This generally related to the use of educational terminology and acronyms that may have been unfamiliar to those doing the transcription. All names (students, school staff, school, and city/town) were removed during the transcription to protect the anonymity of the participants.

Cohen, Mannion and Morrison (2011) advise researchers "to keep uppermost in one's mind the fact that the interview is a social, interpersonal encounter, not merely a data collection exercise" (p. 421). As such, care must be taken to establish an environment that is conducive to open discussion. Efforts were made to explain the purpose of the interview and the details of the research project to ensure the teachers were clear on what they were being asked to do. Asking easier questions at the start of the interview is one strategy to help interviewees feel more comfortable (Patton, 1980). In this case, these questions generally related to the teacher's role in the school and previous teaching experience. In addition to putting the interviewee at ease, the interviewer must consider the dynamics of the interview situation in order to keep the interview moving forward while ensuring the research aims are adequately met (Cohen et al., 2011). Key to this is knowing when to take a more direct approach (e.g., introducing a topic) and when to take a less direct approach that might encourage the interviewee to take the lead (e.g., making encouraging noises or gestures). The interview protocol provided a useful guide for the direct

questioning, and a less directive approach was adopted at other times to encourage the teachers to continue speaking or to encourage them to expand on their responses.

Data Analysis

Transcripts were uploaded into NVivo for analysis. Data analysis followed a general inductive approach as described by Thomas (2006), with the research questions providing a focus for conducting the analysis. A key purpose of inductive analysis is to develop a model about the experiences or processes found in the data, in this case a model to represent teachers' perspectives on student engagement. Transcripts were read repeatedly to identify emerging themes and categories. Initial general categories were developed based on answers to specific research questions. For example, a category called *What is engagement* was created for the teachers' responses when asked to describe engagement/disengagement and to describe a time when students were very engaged in something they were learning. From there a search for sub-categories began and new codes were developed within the initial categories to represent these sub-categories. In relation to the *What is engagement category*, examples of emerging sub-categories were *Doing work*, *Asking questions*, and *Giving eye contact*. As the aim was to develop a model that represents teachers' perspectives, it was important to remain close to their expressed beliefs and descriptions of the phenomenon. Wherever possible, *in vivo* coding was used to ensure the descriptions of categories represented the intended meanings of the teachers as accurately as possible. In *in vivo* coding and inductive analysis, categories or codes are named using the words or phrases used by the participants themselves (Richards, 2005; Thomas, 2006). The use of active coding is also recommended for its ability to capture the experiences of participants (Charmaz, 1996; Creswell, 2012). Active coding was used where possible to focus on the active processes involved in engaging in learning and facilitating student engagement.

The method of constant comparison is a key feature of inductive qualitative analysis. Constant comparison involves comparing new data with existing categories to determine if it fits or if new categories need to be added to accommodate it (Cohen et al., 2011). When new codes were added, the transcripts were re-read and coded according to the new coding structure. The process involved both convergent and divergent thinking to determine how data fit within emerging categories, as well as the distinct differences between categories. This was followed by a period of revising and refining categories to reduce overlap and redundancy. Diagrams were used to focus on what was emerging in the coding and to explore links within and between categories. The intended outcome of this process is a model incorporating a small number of summary or core categories (Cohen et al., 2011; Creswell, 2002). Creswell (2002) advocates for between three and eight summary categories to represent the key themes in the raw data given the aims of the research. In this study, six summary categories were developed in relation to the teachers' descriptions of engagement, and two summary categories in relation to their descriptions of facilitating engagement in the classroom. Key themes were also used to make decisions about the type of model that was most appropriate to represent the summary categories that emerged from the data. The study produced two key outputs. The first was a typology of engagement, and the second was a pedagogical framework for engagement. These will be discussed in detail in the subsequent chapters, but are mentioned here as they influenced the design of Phase Two.

Study 2 - Exploring teacher approaches to engaging students in the classroom

The second phase of the research study aimed to answer the following research questions:

RQ1: How do upper primary teachers conceptualise student engagement in learning?

1.1 How do teachers describe student engagement?

1.2 What indicators of student engagement do teachers describe?

RQ2: How is the concept of student engagement operationalised within classroom learning experiences?

2.1 How do teachers describe their role in engaging students?

2.2 What strategies do they advocate for facilitating student engagement?

2.3 How do teachers attempt to engage students in classroom learning experiences?

2.4 How do students perceive the classroom learning environment and the expectations for their engagement?

As previously discussed, the research adopted a sequential mixed methods design where qualitative data was emphasised. Study 2 sought to build on the findings from Study 1 and the design was influenced by the two key outcomes of the previous study: the typology of engagement and the pedagogical framework for engagement (see Figure 2).

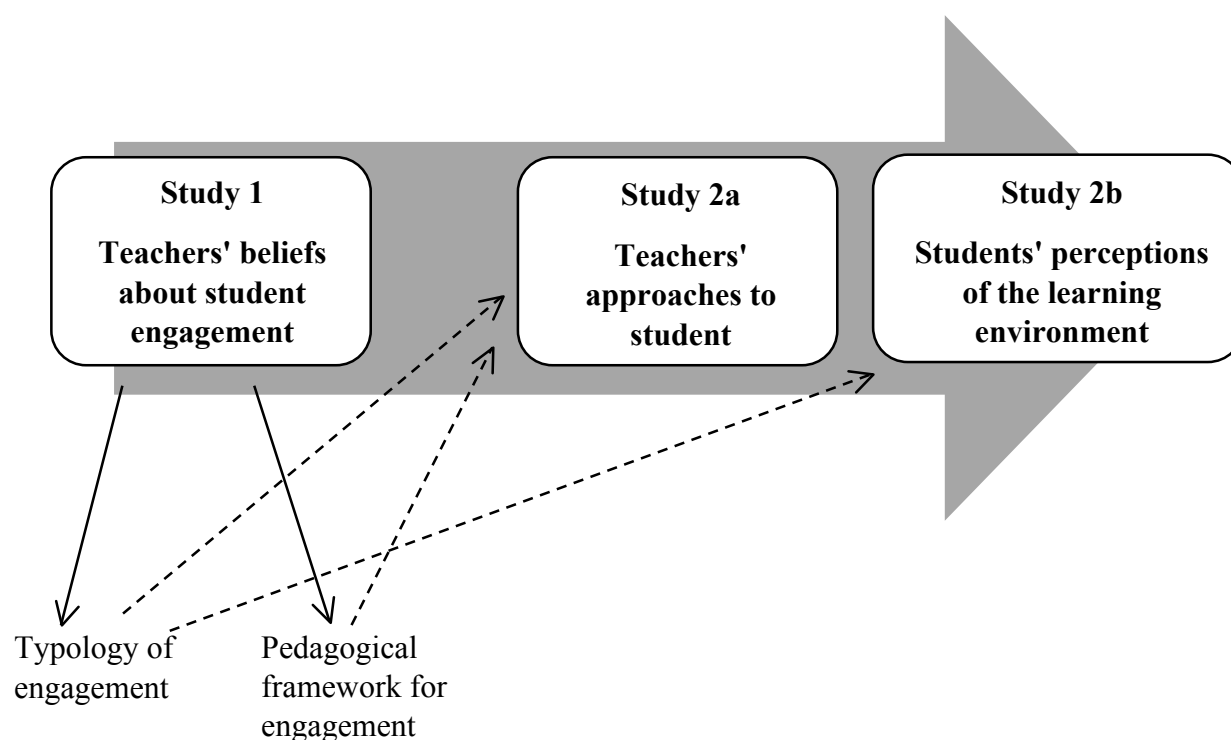


Figure 2. Link between Study 1 and Study 2.

Study 2 had a number of aims. One aim was to test the validity of the typology of engagement as a representation of teachers' descriptions of student engagement. A second aim was to explore the usefulness of the typology in coding field notes from classroom observations of teachers' engagement-related interactions within lessons. Thirdly, the study aimed to explore any possible relationship between the teacher's expressed beliefs about engagement and their observable engagement-related actions within lessons. Finally, this phase sought to extend the exploration of how student engagement in learning is conceptualised in individual classrooms by including the perspective of the students. In particular, the study aimed to explore students' understanding of teacher expectations for engagement and their perceptions of the classroom learning environment and their own engagement in the classroom.

Study 2a - Teachers' approaches to student engagement

This study aimed to test the typology of engagement developed in Study 1 and to explore teacher approaches to engaging students in classroom learning experiences. Whereas the previous study focused on how teachers' conceptualised student engagement, this study sought to explore how student engagement is operationalized in the classroom. Understanding the relationship between teacher beliefs and teacher practice is a persistent theme in much of the teacher belief research, and this research aimed to contribute by exploring the relationship between engagement beliefs and engagement practices.

Participants. As the typology was developed based on interviews with upper primary teachers, teachers at this level remained the focus for this study. Due to the intensive nature of the planned data collection, a small number of participants were recruited. Four teachers participated in this study, ranging in teaching experience from 1 year to 23 years. While there was some diversity in the school demographics (see Table 3), the sample was not as diverse as in the previous study.

Table 3

Demographic data for participants and schools

Pseudonym	Gender	Experience	Year level	School sector	School SES
Robert	Male	3 years	5/6	Government	High
Christine	Female	6 years	5/6	Government	High
Kylie	Female	1 year	5/6	Government	Average
Diana	Female	23 years	5/6	Catholic	High

Data collection. The study had two methods of data collection, semi-structured interviews and semi-structured lesson observations. Together these methods sought to address the two broad research questions and a number of sub-questions, as outlined in Table 4. Methods were chosen based on their ability to answer the sub-question guiding the study. For example, sub-question 2.1 is concerned with teachers' descriptions of their role and this is better captured as part of an interview or open-ended written response rather than an observation or closed survey response.

Table 4

Study 2a research design

Research question	Sub-questions	Method
RQ1: How do upper primary teachers conceptualise student engagement in learning?	1.1 How do teachers describe student engagement? 1.2 What indicators of student engagement do teachers describe?	Semi-structured interview
RQ2: How is the concept of student engagement operationalized within classroom learning experiences?	2.1 How do teachers describe their role in engaging students? 2.2 What strategies do they advocate for facilitating student engagement? 2.3 How do teachers attempt to engage students in classroom learning experiences? 2.4 When do teachers attempt to engage students in classroom learning experiences? 2.5 For what purpose do teachers intervene for engagement in classroom learning experiences?	Semi-structured interview Lesson observation

As the previous study had already established a means of eliciting teachers' conceptions of student engagement and engaging students in the classroom, the use of semi-structured interviews was an obvious choice for this study. To capture information about how teachers operationalize the concept of student engagement in their classroom, the study took two approaches. One was to ask them to report on their own engagement practices during the interview, and the other was to observe their engagement practices within lessons. The aim being to capture the teacher's perception of their engagement practices, while also acknowledging that what they say they do and what they actually do might differ. A main advantage of observation is that it allows the researcher to collect information about actual behaviour as it occurs within a natural setting (Cohen et al., 2011; Creswell, 2012). In this case, how teachers attempt to facilitate student engagement within everyday lessons. Creswell (2012) recommends establishing a rapport with those being observed, and the interviews were conducted prior to arranging the observations as a way of building rapport with the teachers and becoming familiar with the observation site. All interviews either took place in the teacher's classroom or involved a visit to the classroom.

Interviews. To test the typology of engagement, semi-structured interviews were conducted using a selection of the questions from the Study 1 interview protocol (see Appendix A). As the purpose was to test the validity of the established categories of engagement, the questions were focused on eliciting teacher descriptions of student engagement and their experiences with student engagement. Interviews were also used to explore how teachers conceptualised their role in student engagement. Interviews were audio recorded and transcribed by the researcher before being uploaded into NVivo for analysis. As in the previous study, all

names of people and places were removed to protect the anonymity of the teacher and their students.

Lesson observations. Prior to observing, it is recommended that researchers give some thought about their role in the observations, what and who they will observe, and how they will record notes during the observation (Creswell, 2012). As the aim was to capture the teachers' practices and interactions with students within the lesson, it was more appropriate to take the role of nonparticipant observer rather than participating in the classroom events during the observation. This also enabled more detailed notes to be written during the course of the observation, rather than having to write down notes after the lesson had finished.

Building on the pedagogical framework for engagement that was developed in Study 1, the aim of the observations was to capture teachers' attempts to *get students engaged, keep students engaged*, and *re-engage* students in the learning experience. The intent was to record (as much as possible) each observable instance of the teacher intervening for engagement, addressing research questions 2.3 *How do teachers attempt to engage students in classroom learning experiences?* and 2.4 *When do teachers attempt to engage students in classroom learning experiences?* Moreover, the study hoped to explore the thinking and reasoning behind their actions in order to answer research question 2.5 *For what purpose do teachers intervene for engagement within lessons?*

English and Mathematics lessons were chosen as a focus as they are generally taught every day in Australian primary classrooms and would provide some variety while still allowing insight into the teachers' everyday engagement interactions. While acknowledging that teachers may have different approaches and expectations for student engagement in different subject areas (Fredricks et al., 2016), the focus of this research is more broadly centred on exploring teachers'

general approach to engaging students. Each teacher was observed for a total of 4 lessons over a two-week period following their interview in order to ensure there was sufficient data to develop an understanding of the teacher's general approach to engaging students. This decision was guided by the verification strategy of sampling sufficiency as described by Morse et al. (2002).

Developing a template for field notes. As is the case with interviews, observations can range from highly structured to unstructured (Cohen et al., 2011). This study aimed to explore the possibility of using the categories of engagement developed in Study 1 to code instances of the teacher intervening for engagement within lessons, while still remaining open enough to capture data that may not fit within the existing categories. Given this, it was not appropriate to design a structured protocol based on the existing engagement categories as this may lead to behaviours being forced into categories or left out because they did not fit in with the categories. Opting for descriptive field notes allowed behaviours to be captured and analysed later with respect to the categories in the typology. A second, but no less important, justification for deciding on field notes rather than a structured protocol relates to the larger purpose of the research. A central aim of this research project is to develop a model that represents the teacher's perspective on student engagement, including their motivations and decision making when attempting to facilitate student engagement within lessons. As such, it was inappropriate to exclude their voice from the observation data. Cohen, Manion and Morrison (2011) caution about the risks to validity when researchers attempt to infer motivations, feelings or intentions from behaviours recorded on an observation protocol (p. 463). Field notes allowed description and inferences to be recorded separately for transparency, and this could be given to the teacher for checking. Given the desire to find out not only what teachers were doing to engage students

but also why, a key requirement of the field notes was building in an opportunity to elicit the teachers' perspective on their thinking and reasoning.

Creswell (2012) recommends designing a structure for recording field notes during observations in a qualitative study, including space to keep descriptive and reflective notes separate. Table 5 summarises the key requirements and considerations that influenced the development of the field notes template. This mapping of research questions against data collection methods aimed to establish methodological coherence as a verification strategy to ensure reliability and validity (Morse et al., 2002).

Table 5

Design considerations for the field notes template

Consideration	Implications for design	Related research questions
Aim of observation	Capture all attempts by the teacher to increase student involvement in the learning experience	RQ 2.3, RQ 2.4
	Understand their purposes for intervening in relation to student engagement	RQ 2.5
Focus of observations	Teacher behaviour (actions and speech) Student behaviour as context only	
Template requirements	Space for descriptive notes	RQ 2.3, RQ 2.4
	Space for reflective notes	RQ 2.5
	Space for teacher comments	RQ 2.5

Field notes included descriptions of observed teacher behaviour and direct quotes where possible. Information about student behaviour was included when needed to provide context for the teacher's actions. Inferences were made about the purpose of these actions and these were followed up in post-lesson discussions to ensure an accurate representation of teacher intent was

recorded. As an additional step in checking inferences, all field notes were sent to the teacher after each lesson for member checking. The use of member checking or respondent validation is frequently used in qualitative research to ensure there is congruence between the researcher's interpretation and the participant's perspective (Patton, 2002). An extract from one lesson observation is shown in Figure 3 to illustrate this process.

What I saw/heard	My interpretation	Your comments
Didn't call on the first student to put their hand up Prompted students "I should see more hands up" Waited for more to raise their hands	Purpose: Communicates the expectation that everyone should be thinking about the question and ready to respond, no one is allowed to be passive and let others do the work May also acknowledge that some students need more time to think and formulate a response	Having had students for 3 terms, I know which students always respond, which ones need prompting, which ones are passive etc. In this case I knew ALL hands should have been raised as these terms were not new and the content/purpose not new at this stage of the lesson. Therefore reminded class that it's not new learning and get them to actively participate from onset of lesson

Figure 3. Extract from Observation 1 Diana. Showing the researcher's recorded observation and interpretation of the event, as well as the teacher's comments.

Data Analysis. The analysis of data had three distinct phases. First, the interview transcripts were analysed using the existing categories developed in Study 1. Second, the observation field notes were analysed using the categories of engagement from the typology. Finally, the results from these two phases were synthesised for each teacher to explore the relationship between their expressed beliefs about student engagement and their observed engagement practices.

Interview transcripts. The interviews were coded using the existing key categories of the typology to determine if they were sufficient to accommodate this new data, or if new categories needed to be added to reflect new emerging ideas. As in Study 1, the constant comparative method was used to compare new data to existing categories. Along with testing the validity of the existing typology, the analysis also sought to develop additional evidence for the categories in that typology.

Observation field notes. Analysis began in the act of interpreting observed behaviours and interactions and recording these in the field notes. Only after those interpretations were checked with the teacher were the field notes uploaded into NVivo for further analysis.

The analysis of field notes sought to identify patterns in relation to the teachers' purpose for acting and test the viability of using the existing categories of engagement to code these purposes. The decision to focus on *why* teachers act and not just *how* they act was made following Kennedy (2016) who advocated parsing teacher practice "into a handful of important, meaningful, and analytically distinct purposes that teachers' actions serve" (p. 10). This study sought to provide a finer grained understanding of teachers' engagement purposes by using the six categories of engagement rather than Kennedy's broad problems of practice.

As each attempt by the teacher to facilitate student engagement in the learning experience was recorded in the field notes as a separate event, this became the unit of analysis. When coding, the focus was on two things. First, if the teacher was responding to some form of disengagement, the event was considered with respect to the three categories of disengagement to determine if it could be coded with one of those (or if a new category was required). Second, each event was considered with respect to the type of engagement the teacher was hoping to facilitate and whether one of the three categories of engagement would fit with that intention (or if a new

category was required). Two things aided this process. One was the descriptions and evidence illustrating each category that had previously been developed. The other was the researcher and teacher notes where intentions and motivations were explicitly addressed. As an example, in the extract provided in Figure 3 earlier the teacher was encouraging all students to put their hands up and be prepared to respond to her question. This event was coded as Participating as 'responding to teacher questions' was an identified indicator of that form of engagement. Each event was coded for at least one category of engagement, but it was possible for a single event to be coded for multiple categories. As an example, a teacher might respond to a disruption (Disrupting) by encouraging the student to focus on their work (Participating) and attempting to elicit their opinions on the text they were studying (Investing).

Coding each instance where teachers intervened for engagement allowed for a qualitative exploration of the teachers' engagement practices, as well as a quantitative exploration in the form of frequency counts. That is, the analysis qualitatively explored the purposes for which the teachers intervened and the indicative behaviours they were hoping to promote, while also exploring the frequency with which teachers intervened to promote these behaviours in lessons. The process involved both a deductive approach (when applying existing codes) and an inductive approach (when creating new codes and categories). As discussed in relation to Study 1, the intended outcome of this process is a model incorporating a small number of summary or core categories (Cohen et al., 2011; Creswell, 2002). In this study, three summary categories were developed to represent three distinct approaches to student engagement. The three summary categories of engagement (Participating, Investing, Driving) were also further developed by incorporating a number of sub-categories relating to specific expectations teachers had for

student engagement. Figure 4 provides an example of the summary category of Driving and the sub-categories that emerged during the analysis of field notes in this study.

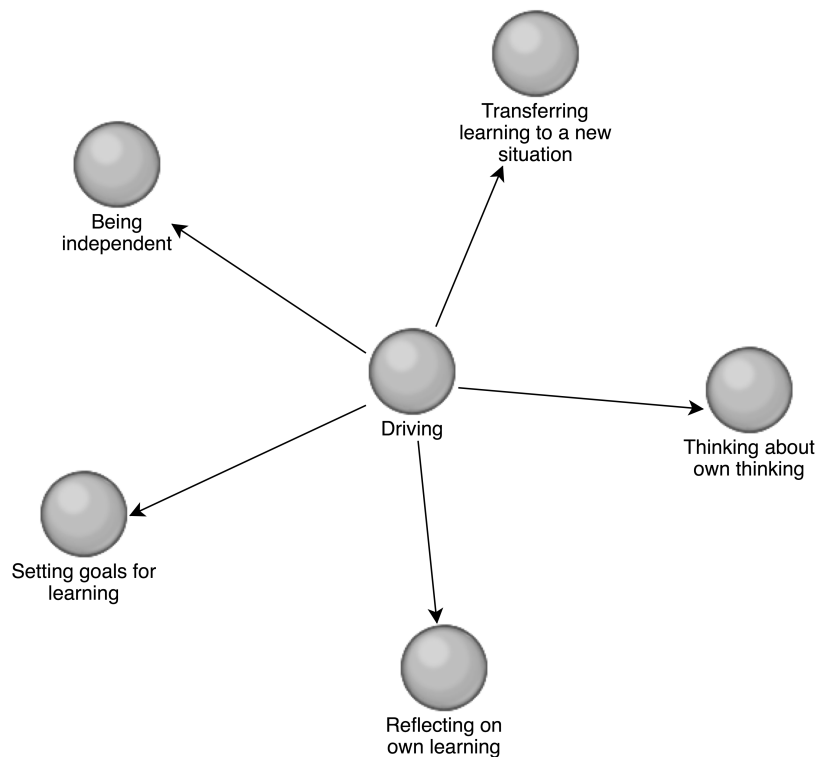


Figure 4. Sub-categories of Driving. Showing the different expectations teachers had for students under the Driving form of engagement as observed during lessons.

Synthesising results. The final step in the analysis was to synthesise the results from the interview data and the observation data. The goal was to compare what teachers said about engagement during their interview with what they did in lessons to encourage engagement. To determine how congruent these data were it was necessary to find a common unit on which to compare them. Both the interview data and the observations were coded at the categories of engagement, and therefore the most obvious path was to compare the frequency of coding at

each category of engagement for each teacher. The primary focus was on exploring congruence within the data for each teacher, rather than comparing the frequencies between teachers.

Importantly, the data collected in Study 2a focused on the teacher perspective, which may differ significantly from the student perspective. If we agree with the premise that the meanings for concepts such as engagement and learning are socially constructed within each individual classroom, then information about the student perspective (as social partners within the classroom) was required for a full understanding of how student engagement in learning was defined in the classroom. This provided the rationale for Study 2b.

Study 2b - Student perceptions of the learning environment and expectations for engagement

In keeping with the sequential design, Study 2b followed Study 2a. It has been argued that current conceptions of student engagement may not adequately represent the way that teachers conceptualise and operationalize the concept in their classrooms. An alternative was developed in the form of a typology of engagement, and Study 2b aimed to test the validity of that construct using a set of items developed from the typology. The items aimed to measure students' perceptions of their teacher's engagement expectations. These items were combined with items from two existing instruments to elicit students' perceptions of the learning environment. This study was guided by the following research questions:

RQ2: How is the concept of student engagement operationalized within classroom learning experiences?

- 2.6 How do students perceive the classroom learning environment and the expectations for their engagement?

A key aim of the study was to investigate whether the students of the teachers from Study 2a perceived different expectations for their engagement that correlated with the teacher's approach to engagement. In other words, was there evidence to suggest that the students and teacher shared a common understanding of what it meant to be engaged in learning in that classroom? This could have been investigated through qualitative methods such as interview or focus groups, and this would have been appropriate if the intent was to explore student conceptions of engagement. However, the aim here was to test a hypothesis that students perceive expectations for their engagement that correlate with their teacher's approach to engagement (as identified in Study 2a). Given the aim of hypothesis testing, a quantitative approach is more appropriate (Johnson & Onwuegbuzie, 2004). Looking more broadly at the aims of the larger research project, this final study provided an opportunity to extend the qualitative findings and test the validity of the typology that had been developed. Creswell (2012) advises that an exploratory sequential mixed methods design is often used to "explore a phenomenon, identify themes, design an instrument, and subsequently test it" especially when no such instruments exist (p. 543).

The findings from Study 2a would suggest that engagement is defined in different ways in different classrooms, and this impacts the opportunities for engagement that are given to students (as well as those aspects of engagement that might be denied) and the expectations for how students will demonstrate engagement within the lesson. While there are many available instruments designed to measure students' engagement at school, these are of limited value if we want to understand what types of engagement related behaviours are expected of students in the classroom. In other words, self-reports of engagement may tell us something about the level and type of engagement within that setting, but they may not tell us how student engagement is

defined in that setting. If that is true, then it would be difficult to determine if a student who reports low levels of engagement is resisting opportunities to engage more fully or is not being provided with those opportunities. Knowing this would be useful in determining the most effective strategies for promoting greater engagement for that student.

As there is no existing measure of student perceptions of teacher engagement expectations, the typology of engagement developed in Study 1 and Study 2a was used as the basis for a set of items measuring student perceptions of teacher engagement expectations. Establishing the validity of a measure is undeniably important; however, empirical methods for doing so are limited (Hattie & Cooksey, 1984). There are three prescribed methods for investigating construct validity: factor analysis (Guilford, 1948), known-groups method (Cronbach & Meehl, 1955; Hattie & Cooksey, 1984), and multitrait-multimethod analysis (Campbell & Fiske, 1959). Using factor analysis to infer construct validity is the most common approach, and some have even used the term factorial validity when referring to this approach (Guilford, 1948; Thompson & Daniel, 1996). Guilford (1948) described many benefits in using factor analysis to support more effective test development, most notably that "it provides a rational, objective procedure and a meaningful, operationally defined, and dependable set of reference categories" (p. 93). Given the prevalence of the factor analytic approach, it was an obvious choice for investigating the validity of the newly developed measure in this study. The use of the known-groups method is not as common, but is appropriate for the current study. Cronbach and Meehl (1955) proposed the use of known groups as a method of construct validation in circumstances where "our understanding of a construct leads us to expect two groups to differ on the test" (p. 287). Hattie and Cooksey (1984) go further to explain, "if a test is 'valid', one criterion could be that test scores should discriminate across groups that theoretically

are expected to be different on the trait measured" (p. 295). The findings from Study 2a suggested that the teachers had different expectations for student engagement and, therefore, the hypothesis was that their students would score differently on a test of their perceptions of teacher expectations for engagement (the scale developed for this study). A final investigation into the validity of the new construct was to include two existing measures along with the new scale items to provide evidence of discriminant validity. Campbell and Fiske (1959) advised that discriminant validation is required to establish that the new test is sufficiently different from other tests that it is expected to differ from (p. 81). To investigate discriminant validity of the new construct of Engagement Expectations, existing measures of student engagement and student perceptions of classroom learning environment were used to explore the unique contribution that the new measure might provide to those wanting to understand the operationalisation of student engagement in classrooms. While some warn against including additional existing scales in the same questionnaire during the early development of a new scale (Worthington & Whittaker, 2006), others advocate in favour of the practice as a means of establishing the reliability and validity of the new measure (Rudestam & Newton, 2007).

Measures. A single questionnaire was developed consisting of three sets of items and two questions relating to student demographics (gender and year level). The first set of questions was a modified version of the *What is Happening in This Class?* (WIHIC) questionnaire (Aldridge, Fraser, & Huang, 1999) designed to measure the psycho-social classroom environment. Second was a set of items from the Math and Science Engagement Scales (Wang et al., 2016), a self-report measure of student engagement. Finally, a set of items was designed for this study to measure student perceptions of teacher engagement expectations. All items had a

common response scale, a 5-point Likert scale (Almost Never, Seldom, Sometimes, Often, Almost Always).

What is Happening in This Class questionnaire. The WIHIC questionnaire was developed with the intent to bring together key aspects of a range of classroom environment measures, while also adding scales to represent key contemporary educational ideas such as constructivism and equity (Fraser, 1998). The questionnaire has been validated across different educational settings (Aldridge et al., 1999; Margianti, Aldridge, & Fraser, 2004; Sinclair & Fraser, 2002) and countries (Aldridge et al., 1999; Charalampous & Kokkinos, 2017; Dorman, 2003). The instrument has been widely used, with Dorman (2008) declaring, "since its evolution, the WIHIC has achieved almost bandwagon status in the assessment of classroom environments" (p. 181).

The items are worded to assess the student's perception of their personal experience within the classroom environment, rather than their perception of the class experience. The original WIHIC consists of seven scales with eight items for each scale. The seven scales are: Student cohesiveness, Teacher support, Involvement, Investigation, Task orientation, Cooperation, and Equity. There have been various modifications made to the original WIHIC over the last 20 years, including attempts to adapt the instrument for use with pre-adolescent students (Aldridge, Fraser, & Ntuli, 2009; Allen & Fraser, 2007; Charalampous & Kokkinos, 2017; Sinclair & Fraser, 2002). Generally, this has involved shortening the instrument by reducing the number of scales, merging scales, and/or reducing the number of items (Charalampous & Kokkinos, 2017).

Sinclair and Fraser (2002) developed and validated a version of the questionnaire for use with elementary and middle school students in the USA. The inventory combined the original

Teacher Support and Equity scales to form a scale for Teacher Empathy. Items representing the original Cooperation, Involvement and Task Orientation scales were also included, for a total of four scales (20 items). For Study 2b, seven of the eight items for Teacher Empathy were included and all four of the items for Involvement. Two items from the Cooperation and Task Orientation scales were also included. In total, 16 of the 20 items from Sinclair and Fraser's (2002) inventory were used and an additional nine items were added from the original WIHIC questionnaire. These additional items were added to better probe specific aspects of student involvement, cooperation and completing tasks in class. For example, given the emphasis on student interaction in two of the four classrooms from Study 2a, four items from the original WIHIC were added to probe students' perceptions of peer interactions and their relation to classroom learning (e.g., When I work in groups in this class, there is teamwork). One of the items from the Cooperation subscale is reverse coded (*I work alone instead of in groups*). Table 6 provides a breakdown of the scales and sample items for each scale.

Table 6

Scales and sample items for the What is Happening in this Class (WIHIC) measure of classroom environment

Scale	Number of items	Sample item	Source
Teacher Empathy	7	My teacher cares about my feelings	Sinclair & Fraser (2002)
Cooperation	6	When I work in groups in this class, there is teamwork	Sinclair & Fraser (2002) Aldridge et al. (1999)
Involvement	7	I give my opinions during discussions in this class	Sinclair & Fraser (2002) Aldridge et al. (1999)
Task Orientation	5	I pay attention during class	Sinclair & Fraser (2002) Aldridge et al. (1999)

Math and Science Engagement Scales. There is no shortage of instruments designed to measure student engagement at school (Fredricks et al., 2011). In response to concerns over the ecological validity of those instruments, Fredricks et al. (2016) used qualitative interviews with middle and high school students and teachers to develop the Math and Science Engagement Scales. This measure is built around the multidimensional framework for engagement prevalent in the literature (i.e., behavioural, cognitive, emotional engagement), with the addition of a fourth dimension to represent social engagement (Wang et al., 2016). Questions remain as to whether this new measure accurately represents the way students and teachers think about the concept of engagement within lessons, as this has been discussed in Chapter Two it will not be repeated here. Despite these concerns, the Math and Science Engagement Scales arguably provides the best available option for Study 2b as it was designed to incorporate the experiences of teachers and students.

The student-report instrument consists of 33 items (8 behavioural, 8 cognitive, 10 emotional, 7 social). Wang et al. (2016) documented evidence of the development and validation of the scales. The authors reported moderate to high reliability for each of the subscales (Cronbach's alpha ranging from .73 to .89). For the purposes of this study, three items were selected from each of the four scales. Minor adjustments were made to the wording of items to reflect the generalist primary classroom rather than a science/math class. For example, *I often feel frustrated in science/math class* was changed to *I often feel frustrated in class*. Four of the items are reverse coded, one for each scale. Table 7 provides details of the scales and items used in this study.

Table 7*Scales and items measuring student engagement in the classroom*

Scale	Number of items	Items
Cognitive engagement	3	<i>I try to understand my mistakes when I get something wrong</i> <i>I don't think that hard when I am doing work in class (rev)</i> <i>I try to connect what I am learning to things I have learned before</i>
Behavioural engagement	3	<i>I keep trying even if something is hard</i> <i>I complete my work on time</i> <i>I do other things when I am supposed to be paying attention (rev)</i>
Emotional engagement	3	<i>I enjoy learning new things in class</i> <i>I feel good when I am in class</i> <i>I often feel frustrated in class (rev)</i>
Social engagement	3	<i>I try to work with others who can help me in class</i> <i>I try to help others who are struggling in class</i> <i>I don't like working with others in class (rev)</i>

Teacher Expectations for Student Engagement. As there is no pre-existing measure to elicit student perceptions of teacher expectations for how they will engage in classroom learning experiences, a new measure was developed. The process of scale development begins with a thorough understanding of the theoretical domain to be measured so that the researcher is able to develop items that adequately represent the construct and demonstrate content validity (Hinkin, 1998; Worthington & Whittaker, 2006). Applying this to the current study, a model developed in the previous studies provided the theoretical basis in the form of a typology of engagement as

described by teachers. As the intent was to measure expectations for engagement, rather than expectations in relation to disengagement, only the three forms of engagement (Participating, Investing, Driving) were used in the item development, the potential limitations of this are discussed later. When constructing items, it is important to be aware of potential sources of measurement error and take steps to create items that are, "clear, concise, readable, distinct, and reflect the scale's purpose" (Worthington & Whittaker, 2006, p. 813). Gehlbach and Brinkworth (2011) advocate the use of interview and focus groups as a key step in scale development to investigate how the population of interest thinks about and talks about the construct. A clear benefit of collecting this data is that it allows researchers to write items that reflect the terminology used by the target population. The qualitative data collected in Study 1 and Study 2a provided a rich source of teacher descriptions of student engagement during interviews, and the observations provided additional data relating to teacher attempts to facilitate student engagement within lessons. These data sources were integral to the writing of items that were relevant and representative of everyday classroom discourse. The development consisted of both inductive and deductive approaches, as the typology was developed inductively and then applied deductively in the development of items. Other recommendations for item writing were also considered, including: avoiding double-barrelled items, keeping questions as short and simple as possible, using unambiguous language, avoiding questions using negatives, and avoiding leading questions (Cohen et al., 2011; Hinkin, 1998). Colleagues with experience in survey research and a background in classroom teaching informally evaluated the items for clarity, conciseness, face validity and appropriateness for upper primary students.

The new measure consisted of four items for each of the three forms of engagement in the typology (Participating, Investing, Driving), for a total of 12 items. Table 8 provides the details of each subscale and the related items.

Table 8

Scales and items measuring student perception of teacher engagement expectations

Scale	Number of items	Items
Participating	4	<i>My teacher encourages us to listen when he/she is teaching us something</i> <i>My teacher asks us questions during lessons</i> <i>My teacher encourages us to finish our work during lessons</i> <i>My teacher asks us to work together on activities</i>
Investing	4	<i>My teacher encourages us to ask questions about what we are learning</i> <i>My teacher asks us to share our ideas with each other</i> <i>My teacher encourages us to enjoy learning in class</i> <i>My teacher encourages us to see how what we are learning is related to life outside of school</i>
Driving	4	<i>My teacher expects us to explain how we found an answer</i> <i>My teacher asks us to set our own learning goals</i> <i>My teacher encourages us to talk with each other about how we learn</i> <i>My teacher encourages us to explain what we need to do to improve</i>

In keeping with the rating scale used in the original WIHIC questionnaire, a 5-point Likert scale was used (Almost never, Seldom, Sometimes, Often, Almost always).

Sample and Administration. Following the known-groups method, the participants for this study were recruited from the classrooms of the Study 2a teachers. Unfortunately, Study 2a was conducted in the second half of the school year (2017) and the timing meant that Study 2b would have to wait until the following school year (2018). All four teachers from Study 2a continued in the same school and the same year level in 2018, although the students were different. The evidence suggests that teachers' general approach to teaching and their beliefs about teaching and learning are generally stable (Mayer, 1999; Praetorius, Pauli, Reusser, Rakoczy, & Klieme, 2014; Stipek, Stipek, Givvin, Salmon, & Macgyvers, 2001). In particular, it has been argued that teachers tend to adopt a general approach to engaging students and a preferred motivating style (Reeve, 1998, 2009; Reeve, Bolt, & Cai, 1999). This style is influenced by the teacher's personality, their acquired skills and knowledge, cultural norms and the social context within which they work (Reeve, 2009). Given the time frame between the observations and the student survey was short (6 months), it was unlikely that there would be a significant change to any of these influences that would suggest a change to the teacher's approach to engaging students in the classroom. However, it has been acknowledged that teachers' motivating style might be influenced by perceived passivity and disengagement in their students (Reeve, 2009; Skinner & Belmont, 1993) and therefore the potential impact of a change in students on the teacher's approach to engagement cannot be completely discounted.

All students in the four classes were invited to participate in the study, and consent was sought from both the students and their parents/guardians. In total, 72 students completed the survey, with the breakdown per class shown in Table 9.

Table 9*Participant demographics by class*

Class	Number of students *				Response rate	
	Boys	Girls	Year 5	Year 6	Total	
1	12	11	12	12	24	100%
2	7	5	7	5	12	52%
3	9	10	11	8	19	83%
4	10	7	9	8	17	71%
Total	38	33	39	33	72	77%

* One student in Class 1 chose not to nominate their gender

The sample consisted of slightly more boys than girls, and slightly more Year 5 students than Year 6 students. There was an average response rate of 77%, but it should be noted that Class 2 had only 52% of students participating. This must be taken into account when interpreting the results. Interpretations of the data collected for Class 1, where all students participated, could be made with more certainty than those made for Class 2 where the responses of 48% of the students is unknown.

Each participating student was provided with a paper questionnaire containing two demographic questions relating to gender and current year level, followed by the 36-item questionnaire. Following Sinclair and Fraser's (2002) example, an explanation of each response anchor was provided in writing at the top of each questionnaire. To avoid confusion, the same 5-point scale was used throughout the questionnaire. Items for each of the three measures were clustered together beginning with the WIHIC items and ending with the self-report student engagement items. Within each cluster, the items were arranged in a cyclical order (as was done in the WIHIC studies) so that all subscales were interspersed. For example, the items representing the WIHIC were arranged so that an item assessing Teacher Empathy was followed

by items assessing Cooperation, Task Orientation, and Involvement in that order. The complete student questionnaire can be found in Appendix C.

Once the consent forms were collected, the researcher visited each classroom to administer the survey. Following the procedures outlined in the ethics application, any non-participating students remained in the room but worked quietly at their desks on individual classroom tasks assigned by the teacher. Legislation in Victoria requires that anyone delivering a program within a school be either registered as a teacher in the state of Victoria, or adequately supervised by teaching staff at the school. Although the researcher had the required Working with Children card, and a background in classroom teaching, she was not registered as a teacher in Victoria at the time of the research study. For this reason, it was necessary for the classroom teacher to remain in the vicinity of the classroom during the questionnaire administration. Teachers were not involved in the administration of the questionnaire, and either worked at their desk or in adjacent workspaces with the door open. This compromise aimed to satisfy the duty of care requirements of the school, while also ensuring that the teacher was not directly influencing the students during the data collection.

The researcher began by explaining the purpose of the questionnaires, explaining the rating scale, and answering any questions that the students asked. A script was written to ensure consistency each time the questionnaire was administered (see Appendix D). The students were assured of their anonymity and encouraged to answer as truthfully as possible. No names were recorded on the booklet, and there was no way of identifying individual students from the completed questionnaires. Each booklet was assigned a code that represented the class number and an assigned student number (e.g., 1_18 indicated that this was Student 18 in Class 1). All questions were read aloud by the researcher to address any potential difficulties relating to

literacy levels, and students were encouraged to ask questions if they did not understand a question to address any comprehension issues. Total time for each session was under 30 minutes, including explanations and administering the questionnaire.

Data Analysis. There were three main aims for the analysis of Study 2b data. Firstly, the validity of the new construct needed to be tested, and the internal consistency of the newly developed items needed to be examined. As the existing measures (WIHIC and student engagement scales) were not used in their original form, it was important to establish the internal consistency of these modified scales as well. Exploratory Factor Analysis was used to explore the underlying structure of the survey items and determine whether the items clustered in the way that was anticipated given the scales described above. Factor analysis is one method for establishing construct validity of new measurements (Cronbach & Meehl, 1955; Hinkin, 1995). Maximum likelihood analysis with direct oblimin rotation was selected as an appropriate approach given the data collected and the aims of the research. Maximum likelihood is advocated to be the best choice when data are generally normally-distributed and allows for a range of investigations into significance and correlations among and within factors (Costello & Osborne, 2005). When some correlation between factors is expected, as is often the case in the social sciences, an oblique rotation such as direct oblimin is preferred (Cohen et al., 2011; Costello & Osborne, 2005). Indeed, given that students' perceptions of the classroom environment and students' understanding of the expectations for student engagement within that environment will both be influenced by their interactions with teachers and peers in the classroom, it was expected that there would be some level of correlation and cross-loading of items across factors. Eigenvalues greater than 1 and a scree test of the percentage of variance explained were used to decide the

number of factors to retain, with the latter argued to be the best option by Costello and Osborne (2005).

Decisions about the retention and deletion of items took into account both empirical and theoretical considerations. Empirically, items that did not load onto any factor were removed and cross-loadings were examined for their magnitude to determine whether the item loaded more strongly on one factor over another. There are no set rules for making these decisions, although a number of approaches are described in the literature. One approach is to focus on the highest factor loading and set a cut off point for retaining the item (e.g., 0.4). Alternatively, a rule can be applied to both the highest and lowest factor loadings to determine whether to keep the item or remove it. In this case, a 0.6/0.4 rule was applied as this has been reported elsewhere in the literature (Matsunaga, 2010). Using this rule, cross-loading items were retained if the highest factor loading was greater than 0.6 and the lowest factor loading was less than 0.4. If the item did not fit these criteria, then it was considered on a theoretical basis. Theoretically, items were examined to determine if they were more theoretically consistent with one factor over another. If the item did not empirically and/or theoretically fit more clearly into one factor, it was removed. Following the factor analysis, internal consistency reliabilities for each of the factors were calculated using Cronbach's alpha and correlations between the factors were examined.

Based on the findings of Study 2a, it was hypothesised that there would be class level differences in the students' responses, in particular their perceptions of the teacher's expectations for student engagement. A second aim of the analysis was to test this hypothesis and this was done through a comparison of class level means for each factor. To investigate the practical significance of these differences, especially given the small sample size, effect sizes were calculated between the classes.

Conclusion

This chapter has described the design for this research project and provided an explanation for how research decisions were made over the course of the project. Given the limited research into teachers' perspectives on student engagement and the pedagogy of engaging students in the classroom, an exploratory approach was warranted to better understand these aspects of engagement. Adopting a sequential mixed-methods design allowed for a period of theory building to occur before designing a measure that was grounded in teachers' real-world experiences of student engagement in the classroom. Key to the design was the ability to build on findings as the project progressed. This allowed for a certain amount of theory testing to occur in Study 2a and 2b. Another benefit of the research design was the ability to triangulate the data across studies and using multiple methods. Despite these advantages, there are limitations to the research design, particularly in relation to the ability to generalise any findings.

The following three chapters are stand-alone manuscripts detailing the studies undertaken for this thesis. The first two manuscripts relate to Study 1 and the final manuscript details Study 2a and 2b. Following these chapters is a general discussion of the key findings of the research project, as well as the implications for practice and research.

Chapter 4: Disrupting to Driving: exploring upper primary teachers' perspectives on student engagement (Study 1)

This manuscript was submitted to the journal *Teachers and Teaching: theory and practice* in December 2017, revised and resubmitted in response to reviewers feedback in September 2018, and is currently under review. This is the first of two papers detailing Study 1 of the research project. The paper in this chapter focuses on teachers' expressed beliefs about *what* student engagement is and how it relates to student motivation and student learning. The next chapter will focus on teachers' beliefs about *how* student engagement is facilitated within the classroom.

Abstract

While student engagement has been the subject of increasing attention in the field of education, attempts to translate research findings into practice have been hindered by a lack of clarity and consensus around the concept. It is generally agreed that teachers have an important role to play in promoting the engagement of students in classroom learning, however, little is known about how teachers think about student engagement or their experiences of engaging students in the classroom. In this study, semi-structured interviews were conducted with 15 upper-primary teachers to explore their perspectives on student engagement in learning. The data showed teachers described six qualitatively different forms of engagement and disengagement that vary in terms of the perceived degree of active involvement of the student. Teachers described three forms of engagement: Participating, Investing and Driving. They also described three forms of disengagement: Withdrawing, Avoiding and Disrupting. The proposed continuum offers some clarity about the range of meanings that teachers may have when using the broad

terms 'engagement' and 'disengagement', and offers an alternative perspective on the concept of student engagement that might aid in future efforts to connect research with practice.

Introduction

The concept of engagement has received increasing attention at the research, policy, and practice level of education over the last 25 years (Eccles, 2016; Eccles & Wang, 2012). Engagement is frequently associated with positive student outcomes including achievement and academic success (Fredricks et al., 2004; National Research Council and the Institute of Medicine, 2004; Reeve & Lee, 2014), as well as providing protective benefits from school dropout and depression (Finn & Rock, 1997). As such, it is unsurprising that stakeholders from all areas of the education community are interested in promoting or improving engagement in students. In a report by the National Research Council (2004), it was stated that “classroom instruction – how and what teachers teach – is the proximal and most powerful factor in student engagement and learning” (p. 60). Given this, an obvious point of leverage in the push to improve student engagement would be to provide guidance to teachers in support of their efforts to engage students in classroom learning experiences. While recommendations are found in the literature, the question remains as to whether these attempts to translate research findings into practice are reflective of the real-world classroom experiences they hope to improve. The authors of one article advise that teachers use recommendations as a 'guide' rather than a 'prescriptive device', going on to argue "it is necessary for teachers to combine their own practical experience with the suggestions" when implementing them into classroom practice (Linnenbrink & Pintrich, 2003, p. 134). This suggests that efforts to improve student engagement need to acknowledge the teacher's own experience and existing knowledge, as well as evidence from research, however to date, we know little about teachers' experiences with student engagement. As a step towards

bridging the gap between research and practice, this study explores the question of how teachers think about and experience student engagement in their classrooms.

The nature of engagement

Although there is a general consensus that engagement is a multidimensional construct, the exact nature and number of these dimensions continues to be debated (Appleton et al., 2008; Reschly & Christenson, 2012). In their seminal review of the research, Fredricks, Blumenfeld and Paris (2004) described three types of engagement: behavioural, emotional, and cognitive. Behavioural engagement generally encompasses elements of school participation, task completion, and rule following. Emotional engagement, also referred to as affective engagement, refers to student attitudes, interest, and feelings about school. Cognitive engagement has the most explicit connection to learning and relates to a psychological investment in learning, as well as the use of strategies that support learning. While there is strong support for categorising engagement in this way, there appears to be a lack of consensus about how to operationalise the dimensions within studies as concepts such as effort are categorised under different dimensions by different researchers (Fredricks et al., 2004; Reschly & Christenson, 2012).

Some authors have proposed a distinction between *engagement in school* and *engagement in learning*, arguing that these different forms may lead to different outcomes (Harris, 2011; Janosz, 2012; Wylie & Hodgen, 2012) and have different determinants (Janosz, 2012). According to Janosz (2012), studies looking at engagement in school generally focus on behavioural and emotional dimensions (e.g. attendance, feelings of belonging, following rules) and this is more clearly associated with social outcomes related to being part of the social institution that is school, such as school dropout, than it is with achievement. In contrast, studies of engagement in learning tend to focus on behavioural and cognitive dimensions (e.g. time on

task, use of learning strategies). Perhaps unsurprisingly, behavioural and cognitive engagement in learning activities has a much stronger correlation with achievement levels than feeling a sense of belonging at school (Lee, 2014; Wylie & Hodgen, 2012). It is possible that students may be engaged according to the definition of one dimension of engagement (e.g. behavioural) but not engaged according to the definition of another (e.g. cognitive). For example, high achieving students may be behaviourally engaged in the processes and procedures of schooling, but may not be emotionally and cognitively invested in what they are doing (Conner & Pope, 2013). In this case, their engagement might be said to correlate with the desirable outcome of achievement, but not necessarily with other outcomes that might also be desirable.

Student disengagement

A common theme within the literature is the issue of student disengagement. Of particular concern is the apparent decline in engagement as students move through the schooling system, especially in the transition from primary to secondary school (Skinner et al., 2008; Wigfield et al., 2006). Importantly, recent longitudinal work has found that while there may be a general downward trend, the engagement trajectories of individual students are more varied (Janosz et al., 2008; Wylie & Hodgen, 2012), and while many students exhibit stable patterns of engagement this is not true for all students (Janosz et al., 2008; Wang & Peck, 2013).

There is debate about whether engagement and disengagement exist as part of the same continuum (Appleton et al., 2008; Jang et al., 2016) or as separate continua (Martin, 2007; Skinner & Pitzer, 2012) that represent two distinct constructs. Put simply, there are those that conceptualise disengagement as being the opposite of engagement and those that see engagement and disengagement as related but separate concepts that need to be considered separately. While disengagement is primarily used as a broad term that encompasses a wide range of behaviours,

some argue that a distinction be made between passive and active forms of disengagement (Earl et al., 2017; Hospel, Galand, & Janosz, 2016).

Teacher influences on student engagement

One of the key reasons for the increasing interest in the concept of student engagement is due to its perceived malleability. Engagement is sensitive to the social-emotional environment of the classroom (Earl et al., 2017; Linnenbrink-Garcia et al., 2011; Marks, 2000; Roorda et al., 2011; Ryan & Patrick, 2001; Skinner & Belmont, 1993; Vollet et al., 2017), task characteristics (Acee et al., 2010; Jarvela et al., 2016; Malmberg et al., 2014; Marks, 2000; Strati et al., 2017) and instructional strategies (Assor et al., 2002; Godwin et al., 2016; Jarvela et al., 2016; Linnenbrink-Garcia & Pekrun, 2011; Shumow et al., 2013), all aspects that fall under the control of the classroom teacher. For example, it has been reported that on-task behaviour declines as the length of the instruction increases, and working in small groups is more conducive to on-task behaviour than whole group experiences (Godwin et al., 2016).

There is compelling evidence to show that teacher-student relationships are positively related to student engagement (Archambault et al., 2013; Conner & Pope, 2013; Klem & Connell, 2004; Roorda et al., 2011; Skinner & Belmont, 1993; Yang et al., 2018). Unfortunately, there is also evidence to suggest that the quality of teacher-student relationships declines as students move through school (Gasser, Grütter, Buholzer, & Wettstein, 2018). A key aspect of teacher-student relationships is the support they provide to students. Teacher support has been described as having both instrumental (academic) and emotional dimensions (Ellerbrock et al., 2014; Furrer et al., 2014; Strati et al., 2017). Instrumental support involves scaffolding students in academic tasks by using strategies such as feedback and structured questioning, as well as providing them with adequate resources. To date, few studies have explored the role of

instrumental support in student engagement, however it has been linked to student motivation and valued behaviours such as help-seeking (Federici & Skaalvik, 2014). More empirical evidence exists in relation to the positive relationship between teacher emotional support and student engagement (Klem & Connell, 2004; Marks, 2000; Patrick et al., 2007; Ryan & Patrick, 2001; Skinner & Belmont, 1993). Emotional support refers to the degree to which a teacher demonstrates caring, warmth, trust, respect and belief in their students' ability to succeed. Perceptions of teacher emotional support have been most commonly linked with student emotional engagement (Furrer & Skinner, 2003; Skinner & Belmont, 1993; Yang et al., 2018).

While not always intentional, teachers can behave in ways that obstruct rather than support student engagement in learning. Instrumental obstruction includes failure to respond to requests for help, neglecting students and undermining student effort, while emotional obstruction is related to behaviours such as teasing and sarcasm. Interestingly, instrumental obstruction may have positive effects on student engagement in certain circumstances. There is evidence to suggest that when there is a low level of challenge and evidence of teacher obstruction, students can actually become more engaged as they have to work harder to figure things out for themselves, however, when the activity is more challenging engagement declines in response to teacher obstruction (Strati et al., 2017). The same study also reported that teacher behaviours that were emotionally obstructive had a negative effect on engagement at all levels of challenge, and even when comments were directed at individual students, the negative impact on engagement was seen across the class (Strati et al., 2017).

While there has been considerable research into the impact of classroom level factors on student engagement, including factors related to teacher behaviours, few have invited the teachers to share their perspective on engaging students in the classroom. Doing so will support a

richer understanding of the concept of student engagement, and the complexities of facilitating it within the classroom.

The teacher perspective on student engagement

Little attention has been paid to teachers beyond asking them to report on students' engagement using predetermined categories, whereas the focus of this research is on exploring teachers' experiences and beliefs about engagement. While acknowledging that the debate continues about what constitutes a belief (see Fives & Buehl, 2011), for the purposes of this study the definition provided by Kagan (1992) will act as a guide. Kagan described teacher beliefs as, "teachers' implicit assumptions about students, learning, classrooms, and the subject matter to be taught" (Kagan, 1992, p. 66). Many terms in the literature are close in meaning to beliefs, including the term *conceptions*, and therefore this term is included here as it is used by the authors of the work being discussed.

Fives and Buehl (2011) described three functions of teacher beliefs: a filter for interpreting experiences and information, a frame for defining problems, and a guide for action. According to this proposition, the beliefs that teachers hold about student engagement may act as a lens through which they interpret events within lessons and also guide any decisions on when and how to intervene in relation to student engagement. Although student engagement is influenced by the behaviour of their teachers (Reeve & Jang, 2006; Skinner & Belmont, 1993), it remains that we know very little about the thinking and reasoning that underpins those teacher behaviours. To date, researchers have made limited attempts to explore teachers' perspectives on student engagement, a fact that has hampered our full understanding of the concept (Fredricks et al., 2016). This is especially true if we are to appreciate the complexities of the task that teachers

face when attempting to facilitate student engagement in classroom learning experiences, and the possible ways the concept is operationalized in the real-world of the classroom.

Teachers' conceptions of engagement

Fredricks et al. (2016) interviewed Math and Science teachers to examine their conceptions of engagement and disengagement. The responses were said to align with the existing framework proposed by Fredricks, Blumenfeld and Paris in 2004 (i.e. cognitive, emotional, and behavioural dimensions), with the addition of a fourth dimension describing social aspects of engagement. Social indicators included working with peers, sharing ideas, and interacting with the teacher or peers. The use of teacher interviews in this study provides some insight into their experience of student engagement, however, as Boekaerts (2016) points out, the researchers approached the research through the lens of the existing Fredricks et al. (2004) framework, and this may have biased both the interview prompts and the coding of responses. Asking teachers to describe what their most engaged and disengaged students were thinking, feeling and doing may or may not align with how teachers actually think about student engagement within lessons. For example, it is reasonable to assume that teachers look for certain behaviours as evidence of engagement, as this is a natural part of classroom teaching. However, it may not be reasonable to assume that teachers make inferences about their students' emotional states and cognitive processes in relation to engagement.

In comparison, Harris' (2008) phenomenographic study explored the beliefs Australian secondary teachers held about student engagement, finding they conceived of six qualitatively different forms of engagement:

- Behaving - participating and following rules
- Enjoying - showing interest and enjoyment in school

- Being motivated - showing motivation and confidence
- Thinking - being involved in thinking
- Seeing purpose - having a clear purpose for learning
- Owning learning - valuing learning and showing a desire to learn

Harris (2011) reported that teachers primarily focused on observable behaviours, such as participating in activities and showing interest, as evidence of engagement. While acknowledging links with the behavioural, emotional, and cognitive dimensions commonly described in the literature, Harris argued her categories represent more closely the holistic way teachers talked about engagement. Harris' work did not explore teachers' conceptions of disengagement, something that will be addressed in this study.

Methods

While the current conception of behavioural, emotional and cognitive engagement is pervasive in the literature, its usefulness and relevance to practice is unknown. Whether teachers conceive of engagement in this way, or have their own model for thinking about student engagement is largely unknown. It appears that teachers may have a range of meanings for the terms engagement and disengagement, however more work is needed to better understand teachers' beliefs about what is meant by student engagement. It is widely acknowledged that teacher beliefs exist as a system of interrelated understandings and may be best studied as a system rather than in isolation (Fives & Buehl, 2011). Thus, exploring teacher beliefs about what it means to be engaged in the classroom may benefit from including their beliefs about the related concepts of student motivation and student learning.

As problems with engagement are often described as escalating in the transition from primary to secondary school, a decision was made to focus on upper-primary teachers. This

study is driven by the following questions: How do upper primary teachers describe student engagement and disengagement? What indicators do they offer as evidence of student engagement and disengagement? How do they describe the relationship between student engagement, student motivation, and student learning?

Participants

The aim was to capture as wide a range of responses as possible, within the constraints of a small sample. As such, diversity was sought in the selection of schools and teachers.

Participants were 15 upper-primary teachers from six Victorian (Australia) primary schools.

Table 10 shows the demographic data relating to the schools.

Table 10

Participating schools

School	Sector	SES
Rural 1	Catholic	Average
Rural 2	Government	Low
Metropolitan 1	Government	High
Metropolitan 2	Government	Low
Metropolitan 3	Government	High
Metropolitan 4	Catholic	High

Participants represented a range of ages and experience levels, as seen in the demographic detail provided in Table 11. There is evidence to suggest that teacher beliefs change over time as a result of experiences (Brownlee, 2003), therefore a range in experience levels was sought in order to better capture any diversity in beliefs that might be related to experience. To protect the anonymity of the teachers, each participant was assigned a pseudonym.

Table 11*Participant demographics*

Participant	School	Gender	Age	Experience	Year level
Kathy	Rural 1	Female	50-54	29 years	5/6
Jeanette	Rural 1	Female	40-44	23 years	5/6
Nicole	Rural 1	Female	30-34	10 years	5/6
Tracy	Rural 1	Female	35-39	12 years	5/6
Rob	Metro 1	Male	30-34	1 year	5
Eliza	Metro 1	Female	30-34	3 years	5
Kellie	Metro1	Female	25-29	2 years	5
Nick	Metro 2	Male	35-39	8 years	5
Ana	Metro 2	Female	25-29	5 years	5/6
Tina	Metro 2	Female	25-29	1 year	5/6
Mark	Metro 3	Male	40-44	10 years	4/5/6
Emily	Metro 3	Female	30-34	7 years	4/5/6
Dee	Metro 4	Female	45-49	25 years	6
Andrew	Rural 2	Male	40-44	14 years	5/6
Sarah	Rural 2	Female	35-39	12 years	5/6

Instrument

Semi-structured interviews were conducted with each teacher to explore their beliefs about learning, student motivation to learn, and student engagement in learning. In-depth, open-ended interviews are recommended when the aim is to capture the meanings that participants make of their experiences in their own words (Marshall & Rossman, 2006; Patton, 2002). An interview protocol is recommended to ensure that major touch points are addressed within interviews, providing a degree of comparability across interviews, while remaining sufficiently open to allow for exploration of ideas and themes as they arise (Miles & Huberman, 1994; Patton,

2002). Key questions in the protocol included: How would you describe student engagement? How do you know when a student is engaged in learning? How do you know when students are not engaged? Can you describe a time when students were especially engaged? How would you describe the relationship between student engagement, student motivation, and student learning?

Data analysis

Interviews were audio recorded and transcribed for analysis. Data analysis followed a general inductive approach as described by Thomas (2006), with the research questions providing a focus for conducting the analysis. A key purpose of inductive analysis is to develop a model about the experiences or processes found in the data, in this case a model to represent teachers' perspectives on student engagement. Transcripts were read repeatedly to identify emerging themes and categories. Initial general categories were developed based on answers to specific research questions. For example, a category called *What is engagement* was created for the teachers' responses when asked to describe engagement/disengagement and to describe a time when students were very engaged in something they were learning. From there a search for sub-categories began and new codes were developed within the initial categories to represent these sub-categories. In relation to the *What is engagement* category, examples of emerging sub-categories were *Doing work*, *Asking questions*, and *Giving eye contact*. Wherever possible, the use of gerund tense coding (i.e., -ing) and *in vivo* coding were used to ensure the descriptions of categories represented the intended meanings of the teachers as accurately as possible. In *in vivo coding* and inductive analysis, categories or codes are named using the words or phrases used by the participants themselves (Richards, 2005; Thomas, 2006). When new codes were added, the transcripts were re-read and coded according to the new coding structure. This was followed by a period of revising and refining categories to reduce overlap and redundancy, with the intended

outcome being a model incorporating a small number of summary categories. Diagrams were used to focus on what was emerging in the coding and to link codes into broad summary categories representing the range of meanings teachers expressed when describing engagement and disengagement. Creswell (2002) advocates for between three and eight summary categories to represent the key themes in the raw data given the aims of the research, in this study six summary categories were developed.

Beyond wanting to understand the different meanings that teachers may have when using the broad terms engagement and disengagement, this study sought to understand their experiences of student engagement in the classroom and their beliefs about student engagement in classroom learning experiences. Using this focus to guide the analysis of teacher responses an initial general category was created to capture teachers' beliefs about the *Nature of student engagement*. This category was developed using the same process described above, with coding clustering in two key themes: *Engagement varies in terms of the level of student activity or involvement* and *Engagement can fluctuate within and across lessons*. These key themes were then used to make decisions about the type of model that was most appropriate to represent the six summary categories of engagement that emerged from the data.

A final focus in the analysis was to explore teachers' beliefs about the relationship between the related concepts of student engagement, student motivation, and student learning. The aim here was not to develop summary categories or a model, but to identify key themes emerging from the data that might further illuminate teachers' understanding of the concept of student engagement.

Findings

When describing the broad concepts of engagement and disengagement, the teachers expressed a range of meanings for those terms. Although the teachers could readily provide examples of engagement and disengagement from their own experience in the classroom, most struggled to describe how engagement related to learning and motivation.

Forms of engagement and disengagement

The teachers described different forms of engagement and disengagement that included both passive and active forms of each. Wherever possible the teachers own words were used to name each form so as to stay as close as possible to the teachers' expressed beliefs. Table 12 outlines the three forms of engagement and three forms of disengagement described by the teachers. Between them these six forms describe all of the different meanings these teachers had when using the broad terms 'engagement' and 'disengagement'.

Table 12*Forms of engagement and disengagement described by teachers*

STUDENT ENGAGEMENT			
	Indicators	Forms	Examples
ENGAGEMENT	Setting learning goals Seeking feedback Collaborating Looking for ways to extend their learning	Driving	"They had ideas of how they could extend themselves. Okay so I'm done with this part, would I be able to do this to take it further? There wasn't even a carrot to dangle in front of them, they had their own carrots. They knew what they wanted to do" (Sarah)
	Asking questions Being curious Being interested Sharing learning with others	Investing	"I guess there'd be a medium level of engagement where they act interested and curious about what they're doing" (Alex) "they've gone home that night...their interest was sparked...and they had these great conversations with mum and dad" (Tracy)
	Following instructions Getting work done Responding to questions Interacting with teacher	Participating	"they're basically just doing what they're expected to or asked to do which is fairly low level of engagement" (Alex) "The ones that are giving you eye contact, they're on board with what you're doing" (Nicole) "That they're on task is the biggest thing. That they're on task, that shows me that they're engaged" (Ana)
DISENGAGEMENT	Not paying attention Not putting effort in Not participating	Withdrawing	"they've just pulled the blinds down, you can see them automatically just glaze over" (Dee) "the glazed look, it doesn't matter what you're saying, you've lost them" (Eliza)
	Being off task Being unprepared Moving around the room	Avoiding	"At a basic level it'll be I don't have a pencil. I don't have my book." (Alex) "They could be moving around the room more than most kids do. They could be finding excuses to go out of the room a lot, or go to their bag a lot." (Mark)
	Being incompilant Challenging Distracting others	Disrupting	"Going to someone else's desk and make an argument about something." (Alex) "Rolling on the floor, riding the chairs" (Dee) "there's those students who are loud and causing a bit of trouble " (Mark)

Levels of engagement

There was an expressed belief in different levels of engagement suggesting that teachers conceived of variations in the students' active involvement in learning experiences as a key aspect of engagement. At times the reference to 'levels' of engagement was quite explicit

At a sort of basic level of engagement, like step one, they'll actually be doing the task or participating in some way in the task... there'd be a medium level of engagement where they act interested and curious about what they're doing... Then I suppose there's another set of even more engaged where some are even quite excited about it and they'll actually take it another step beyond what you might have just expected (Alex)

So what I loved about that is that we let go of it, of what our initial idea was and let them run with it. I liked the idea that they had engagement at a level we hadn't expected.

(Mark)

While other responses suggested a more implicit belief in the existence of different levels of student engagement that generally centred on students exceeding the level of engagement expected by the teacher

The quality of the writing was so much greater than I would have expected simply because I think they were *really* motivated and engaged (Tracy)

Some of them just shone, that was really good, and just did the extra effort...little things that they would never do (Nicole)

Those showing initiative over and above what they're expected to do I guess (Jeanette)

Forms of engagement

Three forms of engagement were described by these teachers ranging from passive participation in classroom experiences through to more active involvement in their learning and the learning of others.

Participating. All teachers described some form of engagement that related to participating in classroom events. This included being on task, getting work done, and following directions.

That they're on task is the biggest thing...that shows me that they're engaged (Ana)

I guess it looks like, you know, heads down, it's completing set tasks (Jeanette)

Participating also involved body language and ways of interacting with the teacher that were perceived as indicators of engagement.

I would say the body language really shows whether they're engaged or not. (Dee)

You can see the eye contact straight away, the ones that are giving you eye contact, they're on board with what you're doing (Nicole)

Investing. In this form of engagement, the emphasis was on increased effort, interest and involvement in classroom events and in their own learning. Common indicators included asking questions, being curious, showing an interest, and discussing their learning with others.

They're applying a bit more of their own thought and effort to the process and seem interested in it. (Alex)

They're always asking questions. (Ana)

They want to get started. They're asking each other for help or having discussions, that sort of stuff. (Eliza)

The responses above describe a more active approach to classroom learning experiences than seen in the previous category. For two of the teachers, this was the highest form of engagement they described.

Driving. Eliza made direct mention of the ‘driving’ analogy for this form of engagement by describing the goal as getting a student to ‘drive his own learning’, going further by noting that when one student chose a topic of interest he ‘didn’t take a back seat’. At this level of engagement, students were described as taking an active role in their own learning by identifying their own goals, seeking feedback on how to extend their learning, monitoring their progress towards goals, and supporting the learning of their peers.

Seeking extension for themselves, seeking challenges, you know coming up to me asking, ‘What can I do next?’ or ‘Would this be a good route to take?’ and ‘What do you think about this question? Do you think this would be a good idea?’ (Kellie)

They had ideas of how they could extend themselves. ‘Ok, so I’m done with this part, would I be able to do this to take it further?’ There wasn’t even a carrot to dangle in front of them. They had their own carrots. They knew what they wanted to do. (Sarah)

A frequently described phenomenon involved a high level of group engagement and active collaboration, often occurring during open-ended projects that took place over a series of lessons.

They’re usually huddled, and they’re all on task, even if there’s noise, their heads are all in together so they can hear each other. (Dee)

I came back into it and the noise level was just amazingly ‘just right’, and it stayed that way for a long period of time and it just told me that they were into something that had really engaged the group, not just a few individuals, but the group (Mark)

There's like this really nice hum across the space and you're just...you look around and everyone, everyone is doing something completely different but you can see how into it they are. They're like, 'No, let me explain how I did it. You solved it like this but I think this way is easier.' (Eliza)

Not all teachers described this form of engagement. Two made no mention of it and four only described this form when prompted to recall a time when students were 'particularly engaged' in something. Overwhelmingly, this form of engagement was described in a way that suggested it was not something that would be seen in every lesson, and not by all students.

Forms of disengagement

Teachers appeared to view disengagement as the opposite of engagement in many instances. This was best seen when teachers, struggling to describe engagement, reverted to thinking about disengagement as a way of explaining what it is not.

They're enthusiastic about learning. You can see their independence and, you know, their research skills, their general demeanour, I guess, their enthusiasm, their...(pause)...because if I think about the opposite, there's a couple that go, "Oh, school's boring." (Jeanette)

As with engagement, three forms of disengagement were described by these teachers. These ranged from passive withdrawal from learning experiences through to more active attempts to avoid tasks or disrupt the learning environment.

Withdrawing. Students at this level were described as being passively disengaged with what is happening in the classroom. The indicators generally focused on a deficit of some sort, such as lack of attention, effort, interest or participation.

I found that some students would just sit there and, as you know, not put their hand up and not respond. (Ana)

It's a look of disinterest (Dee)

Just not hearing from them, low standard of work, no work. (Kellie)

Several teachers spoke of the observable act of withdrawing.

The glazed look, it doesn't matter what you're saying, you've lost them. (Eliza)

They've just pulled the blinds down, you can see them automatically just glaze over.

(Dee)

At this level of disengagement, the students were generally seen as passive and not behaving in a way that would easily draw attention to themselves. They may be considered compliant on some level but not participating to a degree that met the teacher's expectations.

Avoiding. Whereas the behaviour in the previous level was generally passive, at this level students were actively seen to be avoiding the task set by the teacher. This could be observed in their involvement in things other than the set task.

They'll sit on the computer and find other things to do instead of staying on task. (Kathy)

They could be moving around the room more than most kids do. They could be finding excuses to go out of the room a lot, or go to their bag a lot. (Mark)

It is at this level that teachers often referred to 'off-task' behaviour.

Disrupting. This was the most active form of disengagement that these teachers spoke of, characterised by behaviours that disrupted the learning environment or learning in some way.

Going to someone else's desk and making an argument about something. (Alex)

There's those students who are loud and causing a bit of trouble and that sort of thing, getting a bit silly, and don't get much done. (Mark)

Other behaviours described a lack of compliance.

‘I don’t want to sit at that table’ or ‘I’m not sitting next to that person there’ for whatever reason. (Alex)

They just don’t do anything. They literally just sit and go, ‘Whatever’. (Kathy)

It is at this level that students were seen to actively challenge the teacher, and at times attempt to interfere with the learning of those around them.

A continuum of engagement

Engagement was described as something that may fluctuate depending on the student, events occurring both in and out of the classroom, and the task at hand. While the data support a state-like conception of engagement that fluctuates in response to internal and external factors, teachers also expressed the belief that some students could be characterised as either generally motivated and engaged or generally unmotivated and disengaged.

It varies (from student to student) and it varies on the topic, and it will vary on the subject as well. It can also vary on their mood, it can vary on their own experiences. Even things like an argument on the playground can stop a kid working all day. They’re not going to engage in anything. (Sarah)

I have some students that are consistently there, present, engaged, ready to go all the time, but then there are students that it fluctuates. They can have great weeks, they can have great hours, they can have a great 15 minutes. I’m always navigating that. (Tina)

Both engagement and disengagement were described as having passive and active forms, with students described as moving between these different forms. This suggests that a single continuum might be the best representation of teachers' experiences with student engagement in

classroom learning, rather than viewing them as distinct dimensions of engagement. Figure 5 illustrates what this continuum might look like based on the responses from these teachers.

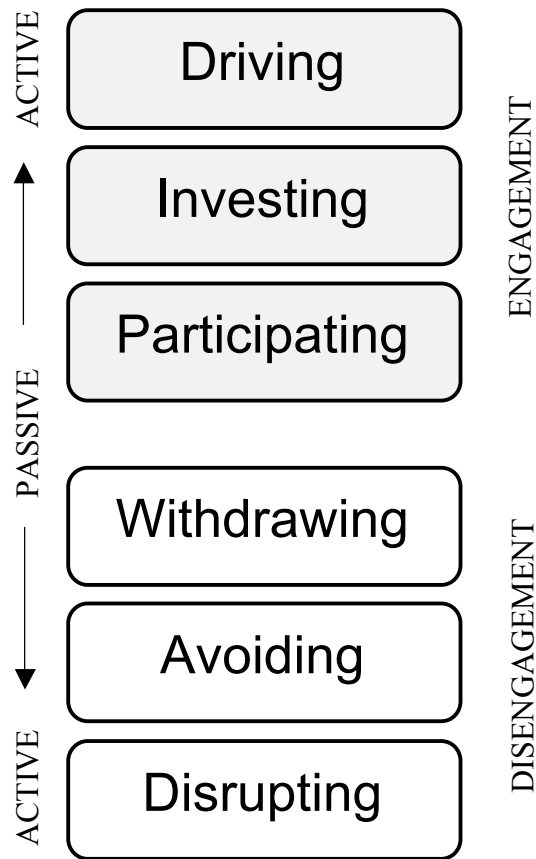


Figure 5. A continuum of engagement representing teachers' experiences with student engagement in classroom learning.

Perceived relationship between engagement, motivation and learning

When asked to describe the relationship between engagement, motivation and learning, all teachers expressed the belief that these three concepts were interdependent and closely connected, to the point that many found it hard to distinguish between them.

I think they're all closely connected together. I think in practise, in the classroom setting you don't necessarily... You're not necessarily seeing those different categories. If there's quality learning going on there's quality engagement and motivation. I think they very much sit together. (Alex)

I guess they're all different but they all feel like one in the same kind of thing. (Jeanette)

Some of the descriptions depicted a somewhat linear relationship with engagement and motivation acting as precursors or prerequisites of learning, and learning an inevitable product of engagement and motivation.

If they're motivated, then they're engaged, and if they're engaged generally they're learning. (Kathy)

The motivation makes you want to. The engagement keeps you there. The learning is basically the outcome of that. (Sarah)

I think if you've got those two, the learning will just come. I think definitely, motivation and engagement have to be there. (Dee)

Several teachers made a distinction between different forms of learning and different forms of engagement by noting that it was possible to achieve surface level learning with minimal engagement, while deeper learning required higher levels of engagement.

I think if you're not wanting to learn and you're not engaged in it, then it's just going to be surface level, not going to have any conceptual understanding. (Kellie)

I don't think genuine learning is possible without a level of engagement and motivation. I think you can get basic level learning, skill...they might be literate and numerate but they won't have the kind of literacy and numeracy and general thinking and learning skills that will enable them to flourish in their later education. (Alex)

In some instances, the link between engagement and learning was less clear, suggesting that, at a base level, learning and engagement are equivalent to ‘doing something’.

I reckon that would be my biggest challenge, is getting everyone somewhat engaged in what’s going on, or really just learning. Doing some kind of learning. Like I said, today with the kids that couldn’t do, I couldn’t let them just sit there and do nothing, I was like, “I have to get them to do something”. (Tina)

Discussion

Although there has been considerable research into the concept of student engagement, it remains that schools and teachers continue to grapple with the task of promoting greater engagement in their students. Indeed it has been argued that this is one of five common and persistent problems of practice facing teachers (Kennedy, 2016). Efforts to translate research findings into practical advice for teachers have acknowledged the limitations of simply prescribing strategies without also considering the context of the individual school and classroom (Furrer et al., 2014; Linnenbrink & Pintrich, 2003; Shernoff et al., 2016). Some have gone so far as to explicitly encourage teachers to make use of the knowledge they have gained through experience when considering recommendations made within the research literature (Linnenbrink & Pintrich, 2003). The aim of this study was to improve our understanding of teachers' knowledge of the concept of engagement by exploring their expressed beliefs and recounted experiences of student engagement in the classroom.

The dominant perspective on student engagement in the school literature is the psychological approach which positions engagement as a psycho-social process involving multiple dimensions. The findings of this study suggest that rather than distinguishing between distinct dimensions of engagement, as is common in the research literature, teachers may

conceive of engagement more holistically. More specifically, they see engagement as taking qualitatively different forms, which range from students actively disengaging from the learning experience through to students actively engaging in learning. It appears the prevailing model of distinct dimensions may not adequately describe engagement as experienced by teachers in the real world of the classroom. The forms of engagement and disengagement described in this study go some way towards clarifying the possible meanings teachers can have when using these terms. Similar to the findings of Harris (2008), there are elements in the teachers' responses that reference the behavioural, psychological, and cognitive dimensions described in the research literature (Fredricks et al., 2004). For example, references to being on-task and participating in lessons as indicators of engagement are clearly aligned with behavioural engagement as described in the literature. Similarly, teacher descriptions of students setting goals for learning and looking for ways to improve are reminiscent of descriptions of cognitive engagement. However, as Harris (2008) argued in her work, the prevailing multi-dimensional model does not adequately represent the concept as described by these teachers. For example, effort is commonly situated within the behavioural dimension or the cognitive dimension (depending on the study), but teachers in this study spoke of effort as something that could range from limited or low level effort in the Participating form to higher levels of effort as the students became more invested in what they were learning. As the teachers in this study generally described engagement as fluctuating and variable, a continuum of engagement may be a more appropriate way of representing their experiences with engagement. This brings together the different forms of engagement, as well as the variations in student involvement they described.

The current findings provide further support for Harris' (2008) contention that teachers conceive of student engagement as a range that spans from passive participation in the classroom

through to actively seeking opportunities to learn, and goes a step further to argue that the same applies to teachers' conceptions of disengagement. While researchers continue to debate the nature of disengagement and its relationship with engagement, the single continuum proposed here best represents the conceptions of these teachers and their descriptions of students who fluctuated between engaging and disengaging within and across lessons. Earl et al. (2017) argued disengagement may be described as having both passive and active forms, and the teachers in this study appeared to support this distinction. Interestingly, they also described a third form that was characterised by active and observable attempts to avoid the assigned task. It may be that this additional form of disengagement represents a finer grained description of disengagement than captured by Earl et al. (2017), whose items only allowed for two forms of disengagement. It could also be argued that teachers categorise different forms of disengagement in terms of the potential threat they pose to the smooth running of the learning environment. Hypothetically, this triage approach to identifying disengagement would see the most active forms as posing the greatest threat and therefore attempts to intervene would begin with these before addressing the more passive forms of disengaging (Paulsen et al., 2006). It may be that teachers distinguish between the different forms of engagement based on the impact it has on them, rather than any link with student outcomes.

The findings presented here suggest that the teachers' perspective might offer an alternative approach for thinking about student engagement. From this perspective, engagement is not viewed as an individual, psychological phenomenon, but rather part of a pedagogical process that is enacted in the classroom each day and focuses on facilitating student involvement in planned learning experiences. It may be that teachers think about student engagement in terms of the impact it has on their teaching and the learning experiences they have planned for their

students. If this were true, active forms of disengagement would have the greatest negative impact on the teacher's ability to manage the learning environment and support the learning of their students. It cannot be assumed that the reverse is true of active forms of engagement. Given the challenges teachers face when attempting to facilitate self-regulated learning (Dignath-van Ewijk & van der Werf, 2012), behaviours that are inherent in the Driving form of engagement described here, it is possible that teachers may perceive some costs in relation to this form of engagement (e.g., having time to develop the necessary skills in students). Whether teachers have adequate skills and knowledge to enable them to facilitate this type of engagement is something teacher educators must consider given the findings reported in other studies (Dignath-van Ewijk & van der Werf, 2012).

Harris (2011) found that teachers often make only implicit links between engagement and learning, making no distinction between *engagement in school* and *engagement in learning*. A key aim of the interviews in the current study was to explore teachers' beliefs about what it means to be engaged in learning, including their beliefs about the relationship between learning and engagement. Many teachers had great difficulty in describing this relationship beyond noting that they were closely related and intertwined. Beliefs that learning is an inevitable outcome of 'being engaged', or that the acts of engaging and learning were equated to the base level behaviour of 'doing something', suggest that little to no distinction is made between being behaviourally (and to a lesser extent emotionally) involved in classroom activities and being cognitively involved in learning. As in the Harris (2011) study, there were a smaller number of teachers who made an explicit connection between engagement and learning. In particular, they expressed the belief that lower levels of engagement (i.e. Participating) might be sufficient for surface level learning, but felt deep learning required higher levels of engagement characterised

by seeking challenges, striving to understand, and looking for ways to improve. This finding suggests that more work needs to be done by teacher educators to support teachers' knowledge about the process of learning and the behaviours that are effective for learning. Making a more explicit connection between engagement and learning may help teachers to make more informed decisions about how students will engage in lessons and may ultimately support better learning outcomes for their students.

Limitations

It is important to acknowledge the limitations of the study, not the least of which is the lack of generalisability due to the small sample size. While the findings do represent the range of possible meanings that teachers might have when using the generic terms engagement and disengagement, that range may not be exhaustive and other teachers might describe forms of engagement that do not fit in with those described here. Future studies are needed to test the viability of the model as a means of describing teachers' perspectives on student engagement.

It is equally important to stress that the proposed continuum represents the perception of the teachers and this may not align with the students' perception of their own engagement. If we are to get a true picture of student engagement as experienced within the classroom, it will be necessary to explore the student perspective more fully. Ideally this would include qualitative methods to supplement the vast amount of quantitative work that has been done in this area.

Finally, while the current study has provided insight into how the concept of engagement is perceived by teachers, it does not tell us the role these beliefs play in influencing teachers' day-to-day interactions with students in the classroom. More work is needed to explore the relationship between teachers' engagement beliefs and their engagement practices.

Conclusion

Understanding how teachers think about and experience the concept of student engagement in the context of their classroom may provide a step forward in our attempts to support teachers in the challenging task of engaging students in classroom learning. The proposed continuum of student engagement offers an alternative approach to thinking about the concept, by situating engagement as part of a pedagogical process focussed on student involvement in classroom learning experiences rather than an individual psychological process. The intent is not to replace the existing conceptions of engagement presented in the literature, but to add to our understanding of the concept by incorporating the perspective of those charged with facilitating student engagement. While the findings provide an insight into the way teachers think about student engagement, more work is needed to explore what influence this may have on their engagement practices. In particular, how do these different forms of engagement relate to teachers' expectations for engagement, their interpretation of student behaviour within lessons, and their decisions about when to act and how to act in relation to student engagement? While these questions are beyond the scope of this research, the findings presented here may provide a basis from which further explorations can develop.

Chapter 5: Engaging students in the classroom: upper primary teachers' perceptions and reported practices (Study 1)

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This is the second paper relating to Study 1 of the research project. The focus is on teachers' beliefs about their role in student engagement and their experiences of facilitating student engagement in the classroom.

Abstract

Promoting student engagement in classroom learning experiences continues to be a priority for schools and teachers due to the reported links between engagement and desirable student outcomes such as achievement. While student engagement has been the focus of much research, it remains that our understanding of how to facilitate engagement in the real world of the classroom is limited. Semi-structured interviews with 15 upper primary teachers explored the lived experience of engaging students in the classroom as a step forward in bridging research and practice. The findings describe a complex process with distinctly different aims (getting students engaged vs. keeping students engaged), different aspects to the role (monitoring, diagnosing, intervening), and a range of different purposes for which teachers intervene. This has implications for the way that we design future research into classroom engagement interventions and how we report findings aimed at supporting teachers in this work.

Introduction

Engagement is frequently linked with positive student outcomes including achievement and academic success (Fredricks et al., 2004; National Research Council and the Institute of Medicine, 2004; Reeve & Lee, 2014), as well as providing protective benefits from school dropout and depression (Finn & Rock, 1997; Wang & Peck, 2013). For this reason, increasing

student engagement is an important aim for both schools and teachers alike. Aspects of the school environment, particularly what happens in the classroom, have been shown to influence student engagement. A National Research Council report (2004) declared, “classroom instruction – how and what teachers teach – is the proximal and most powerful factor in student engagement and learning” (p. 60). While many recommendations have been made within the literature, advice on how to support student engagement within the classroom can be conflicting (Harris, 2010). Despite a lack of clarity and consensus about how best to engage students, it is widely accepted that Australian teachers have a responsibility to facilitate student engagement as a fundamental part of their role (Australian Institute for Teaching and School Leadership, 2017). At present, little is known about teachers’ beliefs about engaging students in the classroom or their perceived role in student engagement, which forms the focus of this study.

What is engagement?

Broadly speaking engagement involves the active participation or involvement of students in what is happening at school. Engagement is studied on different levels including school level, classroom level, and task level. Some argue for a distinction between *engagement in schooling*, representing a student's behavioural and emotional involvement in the social institution that is school, and *engagement in learning*, representing a student's behavioural and cognitive investment in classroom learning experiences (Harris, 2011; Janosz, 2012).

Engagement is described as a multi-dimensional construct, and while the exact number and nature of those dimensions is debated, the most common conception describes behavioural, emotional, and cognitive elements (Fredricks et al., 2004). Behavioural engagement includes elements such as school attendance, rule following and task completion, while emotional engagement refers to students’ attitudes, interests and feelings about school. Cognitive

engagement encompasses the student's psychological investment in learning, as well as their use of strategies for learning.

The influence of context

Student engagement is believed to be malleable, adding to the growing interest in finding ways to promote it within schools. It is generally agreed that a student's engagement is influenced by elements of the classroom context, including the social-emotional environment of the classroom (Earl et al., 2017; Marks, 2000; Roorda et al., 2011; Skinner & Belmont, 1993; Vollet et al., 2017), instructional strategies used by the teacher (Godwin et al., 2016; Jarvela et al., 2016; Linnenbrink-Garcia et al., 2011; Shumow et al., 2013), and characteristics of tasks assigned by the teacher (Acee et al., 2010; Malmberg et al., 2014; Marks, 2000). Key to optimally engaging learning environments is providing appropriate levels of both challenge and support for student learning (Shernoff et al., 2016; Shernoff, 2013)

Teacher support has been frequently associated with student engagement in the literature. Support can be intrapersonal, focused on building relationships, or instructional, focused on involving students in learning experiences (Finn & Zimmer, 2012). Feelings of being appreciated and supported by teachers are strongly associated with behavioural, emotional, and cognitive dimensions of student engagement (Conner & Pope, 2013; Skinner, Furrer, Marchand, & Kindermann, 2008), and particularly important for student's emotional engagement (Furrer & Skinner, 2003). In contrast, teacher behaviours that are believed to be unsupportive, such as inducing guilt and using criticism, have been associated with student disengagement (Earl et al., 2017).

Along with feeling adequately supported, it is important for students to be adequately challenged to engage in learning experiences and tasks. Communicating clear and high

expectations for students, and assigning authentic and meaningful tasks that reflect students personal goals, interests and current level of development have been shown to promote student engagement (Wang & Eccles, 2013).

Engaging students in classroom learning

Kennedy (2016) discussed the problem of enlisting student participation as one of five common and interrelated problems of practice facing teachers. This persistent problem stems from the fact that students may be forced to attend school but cannot be forced to learn while they are there. Accordingly, students may choose one of three responses to this form of 'captivity': actively engaging, actively resisting, or passively cooperating. The distinction between actively engaging and passively cooperating is important when discussing teachers' approaches to the significant challenge of getting students to participate in lessons if, as the author argues, "teachers are rarely able to motivate or entice everyone in the class, and many teachers must settle for an alternative goal of at least gaining their passive cooperation" (Kennedy, 2016, p.11).

Engaging students has been described as involving both identification or monitoring of student engagement and intervening or responding in relation to student engagement (Furlong & Christenson, 2008; Lee & Reeve, 2012), with others making a similar distinction in relation to facilitating student motivation (Furrer et al., 2014; Hardré & Hennessey, 2013). Several studies have looked at teachers' abilities to judge the engagement or motivation of their students. While it is reported that teachers are reasonably able to judge the motivation and engagement of their students (Lee & Reeve, 2012; Skinner, Kindermann, & Furrer, 2009), it appears that they often take into account other characteristics such as past achievement when doing so (Kaiser et al., 2013; Lee & Reeve, 2012). After controlling for student achievement, Lee and Reeve (2012)

reported that teachers were generally able to estimate the engagement, particularly behavioural engagement, of their students but less able to estimate their motivation or their psychological engagement.

Furlong and Christenson (2008) discussed the conceptual link between assessment and intervention for engagement, however this link is less obvious in much of the literature, especially in relation to teacher practices. Within the literature, recommendations for facilitating student engagement vary between broad recommendations that are said to support engagement in a general sense (e.g., Assor, 2012; Pianta, Hamre, & Allen, 2012; Shumow, Schmidt, & Zaleski, 2013), and recommendations for supporting specific aspects of engagement such as social-behavioural engagement during small group instruction (Linnenbrink-Garcia et al., 2011). Both of these approaches present potential problems for teachers aiming to link the assessment and intervention for engagement. Recommendations that are lacking in specificity and targeted at 'improving engagement' in a general sense may be useful as a guide for establishing practices that promote a generally engaging classroom environment, but it is difficult to see how useful these recommendations will be to a classroom teacher who has identified a specific goal (e.g., improving engagement during group tasks) or a specific engagement need (e.g., greater willingness to attempt challenging tasks). In these instances, recommendations that focus on specific engagement challenges or goals might be more useful, but only if the teacher is able to identify this as a specific need impacting on student engagement in their classroom. Either way, the link between diagnosis and intervention is uncertain.

While it is true there are many recommendations for promoting student engagement in the literature, the authors of one article recommend that teachers use recommendations as a 'guide' rather than a 'prescriptive device', going on to argue "it is necessary for teachers to

combine their own practical experience with the suggestions presented here in order to implement these suggestions in their classroom practice" (Linnenbrink & Pintrich, 2003, p.134). Just how teachers should combine these two sources of knowledge when making decisions about student engagement is unclear.

More work needs to be done to understand how engagement is best promoted in classrooms and one way forward is to explore the 'on-the-ground' perspective of teachers and their beliefs about engaging students. Research into teacher beliefs has a long history, including the relationship between beliefs and practice. Fives and Buehl (2011) propose that teacher beliefs act as a filter and frame for experiences in the classroom and help to guide action. From this perspective, it is hypothesised that the beliefs that teachers hold about student engagement influence what they look for and notice within lessons, how they interpret what they see and hear, and how they decide to act in response. Exploring these beliefs may offer some insight into the decision-making and thinking of teachers in relation to facilitating student engagement.

The teacher perspective on student engagement and student motivation

Given the consensus that teachers have a significant role to play in influencing student engagement and learning (Boekaerts, 2016; Furrer & Skinner, 2003; National Research Council and the Institute of Medicine, 2004; Pianta et al., 2012; Reeve, 2012; Shernoff, 2013), it is important to understand the way that teachers think about and implement the concept engagement in their classrooms in order to provide adequate and appropriate support for this work. To date, few have explored the teachers' perspective on student engagement and this is an important gap in our understanding of student engagement (Barkaoui et al., 2015; Fredricks et al., 2016). Given the close relationship between the concepts of motivation and engagement (see

Christenson, Reschly, & Wylie, 2012), and the limited research into teachers' beliefs about either one, both were included in the search of the literature.

Estimating student engagement and motivation

Teachers have described a variety of indicators used to determine students' motivation and/or engagement in classroom learning. Most commonly, teachers report behavioural indicators such as participating, putting in effort, being on task and completing work (Barkaoui et al., 2015; Fredricks et al., 2016; Hardre, 2008; Harris, 2008). Others have reported emotional indicators such as showing enthusiasm, excitement or enjoyment in learning (Fredricks et al., 2016; Harris, 2008) and cognitive indicators such as trying to understand, persisting, solving problems in different ways, and self-monitoring (Fredricks et al., 2016). The emphasis on behavioural elements of engagement is not surprising. Upon reviewing the research, Skinner, Kindermann and Furrer (2009) concluded that behavioural elements of engagement (e.g., being on-task) are more easily observed than emotional elements (e.g., being interested), and that active forms (e.g., participating in a discussion) are more observable than passive forms (e.g., paying attention).

Diagnosing and intervening for student motivation and engagement

Hardre and Hennessey (2013) situated student motivation as a problem-solving task that the teacher must attempt to solve. The authors distinguished between diagnosing for motivation and intervening for motivation, allowing insight into the beliefs teachers hold about these distinctly different tasks. Their findings suggest that while teachers were generally confident in their ability to identify unmotivated students, they lacked confidence in their ability to identify the reasons behind individual students' motivation problems and their ability to effectively intervene for either individual or whole class motivation (Hardré & Hennessey, 2013). While the

authors contend that teachers were aware of the logic of using strategies to address the causal factors responsible for the students' lack of motivation, it is unclear if this accurately represents their thinking and decision making process within lessons. Indeed, in a previous study Hardré and Sullivan (2009) found that teachers tend to have a general approach to motivating their class rather than selecting a response in line with the perceived motivational characteristics of individual students. Similarly, in relation to student engagement, Skinner and Pitzer (2012) argued that although teachers may be able to accurately monitor for engagement and disengagement, this does not mean they are equally as effective in responding. For example, it has been reported that teachers often respond to disengagement by either withdrawing their support or increasing coercion (Skinner & Belmont, 1993), which may lead to further disengagement (Earl et al., 2017; Skinner & Belmont, 1993).

Facilitating student engagement

In an interview study of 20 secondary English teachers in Australia, Harris (2010) explored their beliefs about facilitating student engagement, describing three categories of responses. In the *Delivery* category, teachers' focus was on maintaining order and getting students to participate. This involved prescribing activities and disciplining students who were not behaving appropriately so as to avoid disruptions. Students were seen as passive and learning is implicit. In the *Modification* category, teachers aimed to have all students participating and experiencing success by making sure that activities were achievable and interesting. This required teachers to develop strong relationships with their students and to modify activities to cater for individual needs. Finally, in the *Collaboration* category, teachers focused on developing students' thinking skills necessary for learning. This required collaboration with students in order

to co-construct learning activities that fit the student's purpose. Only in this category did teachers acknowledge they might be to blame for student disengagement.

Others have reported a tendency for teachers to believe in making modifications to existing practices rather than making significant changes to their approach to teaching (Tadich et al., 2007). Importantly, Harris (2010) argued that while the *Collaboration* category might be a valuable approach it may be difficult to implement within existing school structures. In the same way, the Australian teachers in Tadich, Deed, Campbell and Prain's (2007) study expressed a belief that the demands of getting through the prescribed curriculum presented a major barrier to facilitating student engagement.

Although teachers are expected to facilitate the engagement of their students in planned learning experiences, more work needs to be done to understand the most effective ways of doing this. At present, there is little evidence of how teachers conceptualise their role in student engagement or their beliefs about facilitating it within the context of their daily interactions in the classroom, which forms the focus of this research.

Method

This study employed an inductive qualitative approach and was driven by the following questions:

- How do teachers describe their role in student engagement?
- What do they look for as indicators of engagement and disengagement?
- How and why do they intervene to support student engagement?

The aim of the research was not to categorise individual participants into particular groups based on the beliefs they expressed, but rather to explore the range of beliefs and

experiences within the sample in order to begin to describe the concept of 'engaging students' from the perspective of the classroom teacher.

Participants

The marked decline in student engagement during the middle years of schooling (Years 5-8) has been the subject of much attention (Skinner et al., 2008; Wigfield, Byrnes, & Eccles, 2006). With this in mind, and taking into account the researchers experience in primary education, the decision was made to focus on upper primary (Year 5 and Year 6) teachers in this study. The aim was to capture as wide a range of beliefs and experiences as possible. As such, diversity was sought in the selection of schools and teachers. Participants were 15 upper-primary teachers from six Victorian primary schools. Table 13 shows the demographic data relating to the schools.

Table 13

Participating schools

School	Sector	SES
Rural 1	Catholic	Average
Rural 2	Government	Low
Metropolitan 1	Government	High
Metropolitan 2	Government	Low
Metropolitan 3	Government	High
Metropolitan 4	Catholic	High

Participants represented a range of ages and experience levels, as seen in the demographic detail provided in Table 14. To protect the anonymity of the teachers, each participant was assigned a pseudonym and schools were de-identified.

Table 14*Participant demographics*

Participant	School	Gender	Age	Experience	Year level
Kathy	Rural 1	Female	50-54	29 years	5/6
Jeanette	Rural 1	Female	40-44	23 years	5/6
Nicole	Rural 1	Female	30-34	10 years	5/6
Tracy	Rural 1	Female	35-39	12 years	5/6
Rob	Metro 1	Male	30-34	1 year	5
Eliza	Metro 1	Female	30-34	3 years	5
Kellie	Metro1	Female	25-29	2 years	5
Nick	Metro 2	Male	35-39	8 years	5
Ana	Metro 2	Female	25-29	5 years	5/6
Tina	Metro 2	Female	25-29	1 year	5/6
Mark	Metro 3	Male	40-44	10 years	4/5/6
Emily	Metro 3	Female	30-34	7 years	4/5/6
Dee	Metro 4	Female	45-49	25 years	6
Andrew	Rural 2	Male	40-44	14 years	5/6
Sarah	Rural 2	Female	35-39	12 years	5/6

Data collection

Semi-structured interviews were conducted with each teacher to explore the beliefs they held about learning, student motivation to learn, and student engagement in learning. In-depth interviews are recommended when the aim is to capture the meanings that participants make of their experiences in their own words (Marshall & Rossman, 2006; Patton, 2002). An interview protocol is also recommended to ensure that essential points are addressed within interviews, which allows for a degree of comparability across interviews, while remaining sufficiently open to allow for exploration of new ideas and concepts as they arise (Miles & Huberman, 1994;

Patton, 2002). Key questions in the protocol included: *What do you look for in lessons to determine if a student is engaged in learning? What do you look for as signs of disengagement? How would you describe your role in student engagement? When planning for a lesson, are there specific things that you consider in relation to student engagement? What strategies for engaging students have you found to be effective?*

Interviews were audio recorded, transcribed and uploaded into NVivo for analysis.

Data analysis

Data analysis followed a general inductive approach (Thomas, 2006), with a key purpose being to develop a model to represent the patterns found in the data. In this case, the aim was to develop a model to represent teachers' perspectives on facilitating student engagement during lessons. Analysis began with repeated reading of the transcripts to identify emerging themes and categories in the data. As an example, an initial category was developed called *Strategies for engaging students* for teacher responses that described strategies they used to promote engagement. Once the initial categories were identified, new codes were developed to represent sub-categories. In relation to the initial category described above, examples of emerging sub-categories were *Building confidence*, *Building relationships*, *Challenging them*, *Getting them interested* and *Establishing relevance*. To ensure the descriptions of categories stayed as close to the intended meanings of the teachers as possible, *in vivo* coding (using participants' own words as codes) was used where possible, as recommended for inductive analysis (Richards, 2005; Thomas, 2006). Similarly, the use of active coding is advocated for its ability to better capture the experiences of participants (Charmaz, 1996; Creswell, 2012), in this case teachers' experiences of facilitating student engagement in the classroom.

Findings

The focus of this paper is on the teachers' beliefs about *engaging students* in classroom learning, rather than their beliefs about *what* student engagement is, which has been reported elsewhere (Berry, under review). The responses of these teachers clearly indicated they believe they have a role to play in student engagement. Two distinct aspects to the teacher's role emerged in the analysis, *getting students engaged* and *keeping students engaged*. Keeping students engaged within the lesson includes both a diagnostic element, as well as an intervention element, consistent with descriptions found in the literature. Figure 6 illustrates the different aspects of engaging students in the classroom, along with key themes that emerged in the analysis. These themes will be discussed in more detail below.

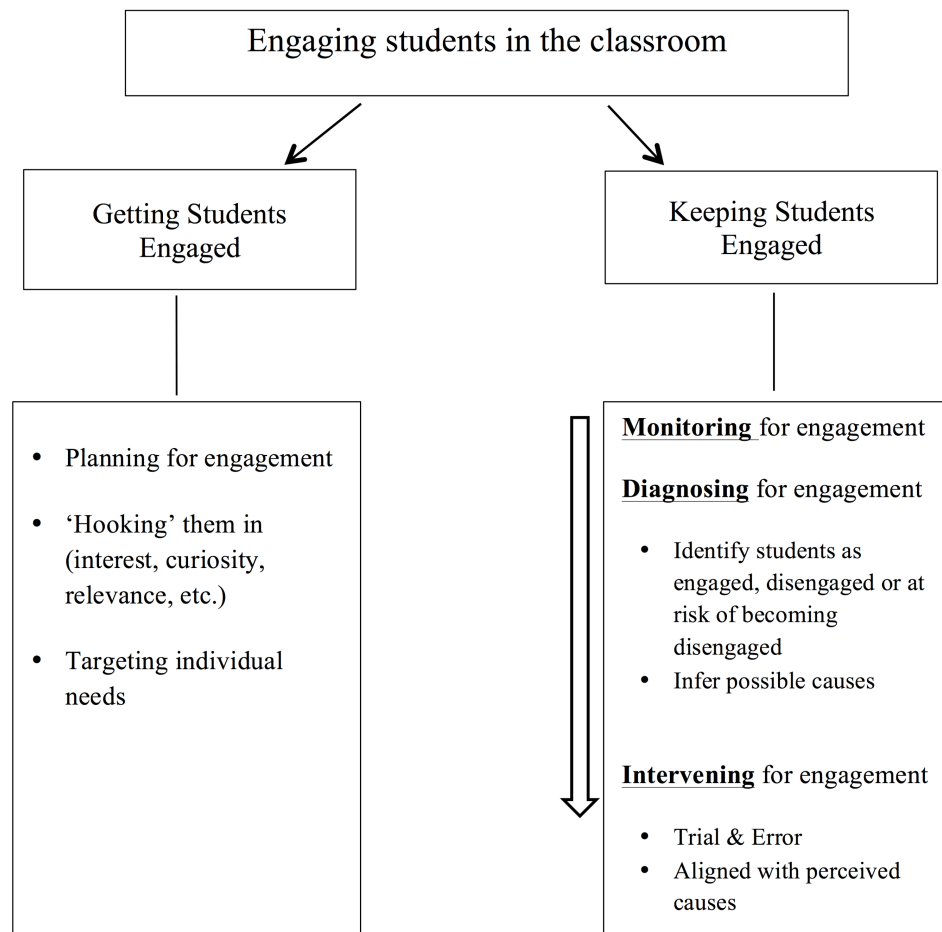


Figure 6. Engaging students in classroom learning experiences. Teachers' descriptions of the different aspects of getting students engaged and keeping students engaged in lessons.

Getting students engaged

Getting students engaged was often described in terms of 'hooking them in' and frequently linked with getting students interested, curious or excited about something.

If I can engage them, if I can get them hooked, the motivation I think will come but we have to hook them. I have to get them interested. (Eliza)

We do try and find the novel, the exciting tasks and lessons to be able to grip in, like drag in the students, and engage them. (Ana)

This work of getting students engaged was often spoken about as something that happened at the start of a lesson, or at the beginning of a series of lessons related to a broader topic.

Initially in any unit of work that we're undertaking, from a holistic point of view, or also from a classroom, one lesson point of view, we must hook those kids in and get them engaged. (Rob)

Most teachers reported considering student engagement during planning time. This included having sufficient knowledge of individual students and their specific needs.

I feel like we're very good at engaging those lower kids because in a planner I think that automatically comes to mind. You're sort of thinking okay, let's give them visual cues and they worked really well with concrete materials. (Kellie)

I'd say our role is to be on the same page, but also develop those relationships with the kids so you know exactly where they are and you know where you can take them and so you can personalise your learning to each child's needs. (Dee)

While technology was often spoken of as an effective tool for engaging students, several teachers acknowledged the limitations of this strategy for supporting student learning.

There are times where it [technology] is a complete distraction. But that just comes to teacher expectations, teacher guidelines that you set. (Ana)

Computers are fantastic when they're used well, when you use it effectively, but when they're not, they're just like babysitting and that frightens me what's going on in some classes, some schools as far as computers. (Kathy)

All the games and everything that they've brought in saying they're great are great but half the time they're just clicking away and not even knowing what they're clicking, just to get to the end...lots of them just click through it to get to the game at the end, like they have no idea what they're clicking on, not even reading the questions. (Nicole)

This suggests a belief that students might be engaged with technology but not engaged in the learning intended by the teacher, with a similar concern over the use of hands-on materials, as illustrated in a story recounted by Emily. Describing a Maths lesson where students were working in groups to estimate how many ping-pong balls it would take to fill the classroom, she spoke of two groups and their different experiences as a way of explaining what engagement looks like within a lesson. While one group was involved in a highly animated and heated debate about the appropriate method for estimating, the other group became involved in using the trundle wheel:

They'd gotten the trundle wheel and they were just - I mean the - it was a great investigation, it was just not helping them to get their answer and they were just wheeling it to see how far it could go.

She went on to clarify why the two examples were different in terms of engagement:

Those girls were really into it...that was really in their ZPD. That was really where they needed to be right then. So their engagement was really high. You know those boys over there would have said they were really engaged, it wasn't - it was too challenging for them to - to work at independently...they were engaged because it was cool, we're moving around, we can have - we're working with each other, we're wheeling the things. You know it was very physical, so nothing else that stopped them from feeling bored.

These comments suggest that for some teachers getting students engaged involves promoting a willingness to participate in the learning experience, but also ensuring that students are participating in a way that supports their learning.

Keeping students engaged

While most teachers discussed the ways they planned to get children engaged in lessons, one teacher acknowledged that student engagement was not something she consciously thought about when planning.

Being totally honest. I probably just look at the topic and say quickly, "I'm going to just do it like I usually do it." When it actually comes to me in front of the class though, then I gauge their interest level and I see if some of them are starting to get restless or not interested, then I chop and change it a lot more. But in the actual planning...my forward thinking is not really about how I'm going to engage them, it's what I'm going to teach and what's the outcome. So, that's when I start changing things around a little bit when I'm actually working with them. (Kathy)

This suggests an assumption that students begin the lesson in an engaged state but could become disengaged as the lesson progressed. For this teacher, the task of engaging students appeared to be more about keeping students engaged rather than getting them engaged.

Others also spoke explicitly of keeping students engaged in a way that suggested the emphasis was on staying on task and completing work.

Keeping the students engaged within the lesson is giving them short, sharp time frames to get things done. Keeping them engaged and on task would be, "You have 10 minutes to go and do this. Come and show me." (Ana)

Teacher descriptions of how they go about keeping students engaged provided evidence of three processes that support this aim: monitoring, diagnosing and intervening for engagement.

Monitoring for engagement. As described by Kathy in the quote above, all teachers discussed monitoring student engagement within lessons. Often teachers spoke of monitoring engagement in a way that suggests it is obvious and easily determined by 'seeing', 'feeling' or 'sensing' it.

You can see engagement...I think when you've got them, you know you've got them, it's unquestionable. (Tracy)

I think that you can just actually see the engagement. You can feel it. (Nick)

If kids aren't engaged it's very obvious, it's very clear...you see it. (Emily)

Others described more specific indicators that students were disengaged or at risk of disengaging.

That they're on task is the biggest thing. That they're on task, that shows me that they're engaged. (Ana)

The glazed look, it doesn't matter what you're saying, you've lost them and the same if you've got the body language and they're checking their iPads for the time and you know they're not engaged. (Eliza)

The indicators of disengagement that teachers described can be categorised into six broad behaviours: disrupting, being uncompliant, avoiding work, being distracted, not getting work done, and withdrawing (see Figure 7).

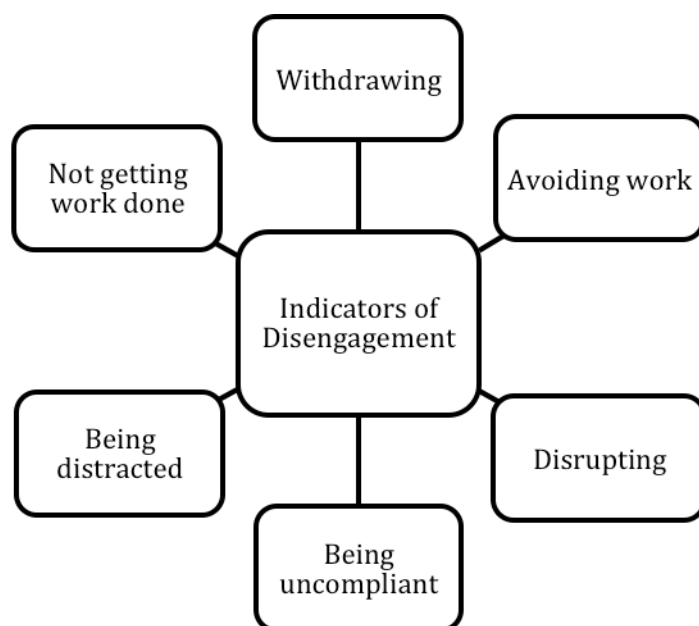


Figure 7. Indicators of disengagement described by teachers.

When asked to describe what they look for as indicators of student engagement within lessons teachers identified a range of student behaviours that fall into five categories: compliance, being on task, participating, asking questions, and task-related interactions (see Figure 8).

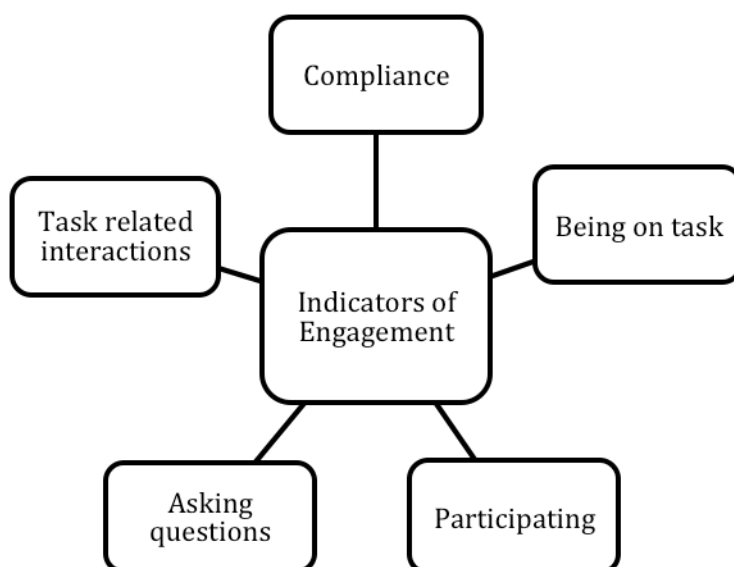


Figure 8. Indicators of engagement described by teachers.

Within some categories, the behaviours ranged in terms of intensity or specificity. For example, the behaviours described in the compliance category ranged from a lack of behaviour problems to following set procedures for group work. Likewise, in the participating category the behaviours ranged from showing signs of paying attention (e.g., eye contact) through to actively contributing to class discussions. Monitoring for engagement is presumably accompanied by diagnosing engagement and attempts to intervene when necessary to keep students engaged or re-engage them.

Diagnosing for engagement. In monitoring, the teachers were looking for indicators that would support them in diagnosing student engagement. All teachers were able to describe indicators they used to determine students' engagement, suggesting that each teacher was involved on some level in diagnosing whether students were engaged or disengaged. While all teachers were able to offer some suggestions about why students choose to disengage or engage in the classroom, only a few made a link between identifying the cause and deciding how to respond. Perhaps the most detailed discussion about the importance of trying to understand the 'why' behind the 'what' of student behaviour came from Emily, who emphasised, "I think it's about the *reasons* for their motivation or their *reasons* for disengagement". For her, understanding the reasons behind the behaviour was key to her decisions about how to intervene.

So for a kid that I perceive as having negative self-talk around themselves and mathematics, how I get them to feel safe to have a go is going to be different to one where it's like they really like maths, but they had a problem at recess. So I guess that the relationships are very crucial to that ... I'm sure I do it and I'm not even aware of it.

(Emily)

When discussing perceived reasons behind student engagement behaviours, teachers identified a range of motivations, including: wanting to please the teacher or parents, having a genuine interest in the subject or task, finding the task enjoyable, or having a desire to learn or improve in some way.

In relation to disengagement, teachers identified a range of potential causes. These could be grouped into three broad categories: motivational factors, external factors, and developmental factors. Motivational factors were most frequently cited as causes behind student disengagement and included boredom, lack of interest, low perceived value or relevance of the learning experience, a desire to avoid failure, and low confidence in their ability to succeed in set tasks.

They've got themselves - a perception of themselves as a learner already and you know that narrative is really hard to change. It's so great when it does, because you - you know as an educator that when that - if that child's self-talk is about I'm bad at maths, maths is hard, I don't like maths, to - to be able to get past that wall and get them to engage in anything feels like victory you know. (Emily)

In addition to these factors, some teachers identified a relationship between students' level of development and their engagement. Having low social skills, low organisational skills or low maturity levels was seen as an impediment to engagement by some teachers, particularly if that engagement required a certain level of social interaction or independence. For example, Dee recounted a student who "really struggles with empathy" and socially interacting with his peers. When asked how this impacted on his ability to work in groups, she replied:

He doesn't. He's the one who's always off task, unless you've got something that he's an expert in, but even then, it's not really teamwork as much as him telling them how it works. (Dee)

Finally, teachers perceived a range of external factors that negatively impact on student engagement. These include school level factors (e.g., disruptions to the time table, incidents in the playground) and family level factors (e.g., disruptions in the home).

If something's happened out in the yard or at home before school, the academics won't happen, no matter how much you try and teach them, they're not in the right mindset.

(Ana)

Interestingly, only four teachers discussed poor teaching as a cause of disengagement. This included providing inadequate challenge, presenting things in a boring or predictable way, and not being able to communicate the relevance or value of the proposed learning task.

I think there are a lot of things that they repeat for three or four years...there are a lot of those things where I go, 'No, we're not doing that. They've done it three times. Let's not do that.' And I think that's huge when you talk about engagement and motivation at this year level. They know what's coming and they've done it before...I think we need to raise our expectations a little bit. (Tracy)

I might not be as engaged in it and believe in it myself, so I'm not going to be as passionate when I'm delivering it to them. If I don't have the belief in it, how can I instil it in them that it's going to be something that they might need? (Rob)

If you're doing an intro, the intro goes too long, the glazed look, it doesn't matter what you're saying, you've lost them. (Eliza)

I think it really comes back to how engaging the task is because you can't blame students if they're not engaged. It comes back on us as teachers. We're the reason that they aren't engaged. (Nick)

Intervening for engagement. The teachers reported a range of strategies for intervening for student engagement and distinctly different purposes for those interventions. The idea that engaging students requires a collection of strategies was present in many of the interviews.

I'm still continuing to find different ways, different ways to try and get them to contribute and be active in the lesson. I'm still trying to find different ideas. (Ana)

That comes back to that professional learning and always building, building our knowledge and having a bag of ideas on how to engage that student. (Nick)

Broadly speaking, these attempts to intervene aimed to facilitate engagement in three different ways (see Figure 9). The first category of interventions described by these teachers focused on developing *the skills* necessary for students to successfully engage in the learning experience. A second category focused on supporting *the will* to engage by facilitating students' motivation or willingness to engage in learning experiences. The final category of interventions centred on promoting *the thrill* of engaging that comes when students experience positive feelings of achievement and success as a result of their active engagement in learning experiences.

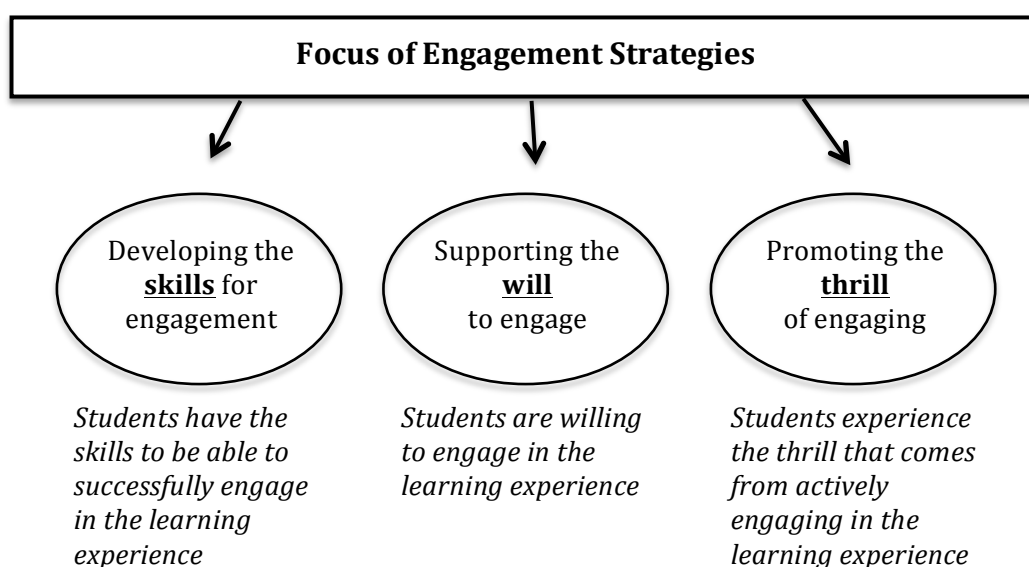


Figure 9. Focus of described engagement strategies: the skill, will and thrill.

Within these broad categories, strategies were often linked with more specific engagement goals as described in Table 15.

Table 15

Advocated strategies for promoting student engagement

Goal of strategy	Example
Skill	
Developing student ability to do the work	Identifying what students know and can do, differentiating tasks, explicit teaching
Developing skills for working with others	Assigning roles for each group member, teaching them to give peer feedback
Developing teacher's ability to engage students	Asking for student feedback, reflecting on practice, trying new things, seeking advice from colleagues
Will	
Getting students interested	Being enthusiastic and interesting teachers, making connections to students' lives, novelty, using technology
Building confidence	Setting achievable goals, helping them to set their own goals, positive feedback, emphasising effort
Gaining students' respect and trust	Admitting to mistakes, sharing own experiences with learning, showing an interest in their lives outside of school
Addressing negative emotions	Giving student space to calm down, facilitating discussions between students, working with parents
Thrill	
Making sure students are sufficiently challenged	Differentiating tasks, encouraging students to push themselves, providing extension opportunities
Celebrating student success	Highlighting individual achievements, getting them to share their work, helping them to monitor their progress
Encouraging student investment in learning	Providing students with choice, providing opportunities for 'passion projects', problem-based learning

While the discussion of advocated strategies was often explicitly linked to a particular purpose, it is also true that some teachers described a less directed approach to engagement that appeared closer to trial and error.

I've tried, as I said, game-based learning, moving them around, different types of space, but I don't know what exactly works. They all work in some aspect, but there's not a definite thing where I'm like, this works but this doesn't. (Tina)

In these instances, it would appear that the identified purpose of intervening was to facilitate or improve student engagement generally rather than target specific aspects of engagement such as confidence.

Teacher-student relationships

Some teachers reported using their knowledge of students' behaviour patterns and approach to learning to help them diagnose and intervene for engagement.

So for a kid that I perceive as they have negative self-talk around themselves and mathematics, how I get them to feel safe to have a go is going to be different to one where they really like maths...because I know oh that kid doesn't like maths and I know from last year he was like this. (Emily)

For this reason, developing a strong knowledge of individual students was considered by some to be an important part of being able to successfully engage them in the classroom. In addition to this, several teachers identified building relationships with students as a central and essential part of getting students to engage in classroom learning.

Yeah I think that relationship building that's big - knowing their parents, knowing their siblings. Knowing who they are. Because I think - well I do care about them, but if they think I do, then you know they're going to want to work with me. (Emily)

Another six teachers explicitly spoke about the need to establish and maintain strong positive relationships with individual students, echoing the beliefs expressed by Emily above. Based on the responses, it appears that teacher-student relationships serve two distinct engagement purposes for teachers. First, they assist the teacher in diagnosing individual student engagement in lessons. Secondly, establishing trust and positive feelings towards the teacher are believed to support student willingness to complete or at least attempt set learning tasks. Over half of the teachers did not speak explicitly about relationship building as a strategy for engaging students, however it is unclear whether this is because they do not believe this to be an effective engagement strategy or whether it was simply not captured in their interview.

Confidence in engaging students

The teachers appeared to vary in confidence to effectively engage students in classroom events and set learning tasks. All were able to describe ways they attempted to promote student engagement, but many expressed the perceived limitations of their influence. For some teachers, a change of context (new school or year level) provided a significant challenge to their perceived ability to effectively engage students in the classroom. This suggests that teachers' skills in engaging students might be dependent on the context to some degree, so that what is effective in one context may prove ineffective in another.

I've swept in thinking, "Right, I'm going to take you off in this direction. That's going to be great. You're going to achieve these standards that (Principal) is wanting." And then I'm finding, oh no, we're not quite going to get there like I thought we were. So we need – I need – my expectations have to change...because I thought they'd get on board, and they'd be excited, and they'd be achieving, and then we'd build, build, build, but they're

not wanting to put the work in or the effort in, and they don't get as excited by success as I thought they might. (Kathy)

I've been thinking a lot about student engagement anyway this year because I've noticed a lot of differences between my past experience teaching and my current year teaching. It's been a very different context, very different students, very different experience for me as a teacher which I'm still grappling with. (Alex)

Other teachers described low levels of confidence in their ability to either diagnose engagement and motivation in their students or in their ability to intervene effectively.

Engagement can be really hard to figure out, because are they engaged or are they just there? Sometimes you don't know. They might look like they're engaged, they might look like they're looking at you and they have good body language, but are they actually interested in what I'm talking about, interested in learning? (Tina)

That's the thing, is to try to figure out how can I make them care? But I don't know that I have the capacity to make them. Do I have the ability to make someone care? Probably not. (Tina)

I don't think you're going to be able to engage 23 people, six-and-a-half hours a day, for the whole year. But obviously, that's the aim to do that as often as you can, but I think it's unrealistic to think that. (Jeanette)

It was acknowledged that while the teacher might try to spark an interest, or build on the student's successes, there are instances where the student actively rejects such attempts.

There's some students that really take on teacher talk and love conversations, and some that immediately shut down when a teacher gives feedback or queries them about something, it's just like *boom*, game over. (Tina)

I had one little boy the other day saying, "Can you stop complementing me?" and I said, "Why is that?" He said, "It's getting annoying." I said, "But I see greatness in you." He said, "Well I don't. No one's said it before, so just stop." (Kathy)

Discussion

Given the emphasis placed on student engagement, and the expectation that teachers are responsible for facilitating student engagement within their classrooms, it is not surprising that the teachers in this study reported this to be an important part of their role. Consistent with Kennedy (2016), the teachers spoke of engaging students as a problem solving activity with the 'problem' primarily one of getting students involved in classroom learning experiences and keeping them involved. In addition, the teachers' descriptions of how this role is carried out in the classroom included both diagnostic and intervention aspects to their practice, similar to what is found in the literature (Furlong & Christenson, 2008; Furrer et al., 2014; Hardré & Hennessey, 2013; Lee & Reeve, 2012).

It appears that *getting students engaged* is primarily centred on capturing students' attention, interest and/or curiosity so that they are willing and able to engage in the learning opportunities within the lesson. *Keeping students engaged* required the teacher to monitor engagement within the lesson for observable engagement-related behaviours. Based on the descriptions provided by the teachers, monitoring student engagement within lessons allowed the teacher to identify students who required teacher intervention to facilitate their engagement in the learning experience. The teachers described a range of indicators used to determine student engagement and these primarily involved easily observable student behaviours such as participating in class discussions and being on task, supporting the findings reported in other studies (Harris, 2011; Lee & Reeve, 2012).

When discussing why and how to intervene for engagement within lessons, some teachers spoke more broadly about intervening to improve student engagement in a general sense, with the primary aim being increased participation in the planned learning experience (e.g., contribute more to discussions). In contrast, others described a range of specific engagement problems and purposes for intervening, which implied a level of causal attribution taking place as part of their decision making. For example, a lack of confidence was frequently discussed as a common factor inhibiting students' willingness to engage with set tasks, and one that required specific strategies. The teachers varied in the emphasis they placed on identifying the underlying causes of engagement problems. For some this was communicated as a critical step in determining how to intervene, others only suggested possible causes when prompted by the researcher. More work is needed to determine if this is because they do not consider causal factors when deciding how to act, or if they are simply less aware of their thinking and decision making in relation to student engagement. As reported elsewhere in relation to student motivation (Hardré & Hennessey, 2013), although most teachers were confident in their ability to diagnose for engagement there was less certainty about how this helped in determining how to respond. This lack of explicit connection between diagnosing a need to respond and determining how to respond was apparent in many interviews.

Three distinct purposes for intervening for engagement were identified: developing the skills to engage, facilitating the will to engage, and promoting the thrill of engaging. Each of these purposes had specific subcomponents and strategies related to it, suggesting that broad recommendations for improving student engagement may be inadequate for the complex reality of the task. A more appropriate and useful approach to translation of research findings to practice may be to acknowledge the lived experience of those in classrooms and tailor recommendations

to account for this reality. Attempts to support teachers' engagement practices should take into account the real world context of the classroom and their experiences of engaging students to ensure that strategies and recommendations can be appropriately targeted and useful for teachers.

Limitations

It is important to acknowledge the limitations of the study, not the least of which is the lack of generalizability due to the small sample size. While the findings do represent the range of beliefs about engaging students present in this group of teachers, that range may not be exhaustive and other teachers might describe other aspects and beliefs that are not captured here. Future studies are needed to test the viability of the model as a means of describing teachers' beliefs about engaging students in the classroom.

Additionally, while the current study has provided insight into the thinking of teachers in relation to student engagement, it does not tell us how this relates to their actual day-to-day interactions with students in the classroom. Future work might build on the findings presented here by investigating teachers' engagement-related practices during lessons. Specifically, observations of teacher-student interactions in the classroom might provide additional evidence of how teachers monitor for student engagement and intervene to facilitate greater engagement within lessons.

Conclusion

Finding ways to improve student engagement continues to hold the attention of many in the educational sector, with the understanding that this is an important task that classroom teachers undertake in their classrooms each day. While it is true that much research has been conducted in relation to student engagement, it remains that the translation of this research into something that is usable and useful to teachers requires more attention. The findings of this study

provide some insight into how engagement work is enacted within the classroom and may assist future efforts to better support teachers in undertaking the complex task of engaging their students in classroom learning.

Chapter 6: Operationalising student engagement in upper primary classrooms: what does it mean to be 'engaged in learning'? (Study 2)

This manuscript was submitted to the journal *Learning and Instruction* in June 2019. The manuscript was co-authored with the Principal Supervisor, John Hattie. The qualitative part of the study was presented at the 2018 Junior Researchers of EARLI (JURE) conference in Belgium. The paper details Study 2a and 2b of the research project and focuses on investigating the relationship between teachers' expressed beliefs about student engagement and their enactment of the concept within their classroom.

Abstract

Student engagement has been frequently linked to valued student outcomes such as academic success and wellbeing and the concept continues to capture the attention of many in the education community. It is widely agreed that teachers play an important role in influencing student engagement in the classroom. However, little is known about how teachers think about student engagement or go about facilitating it within lessons. This mixed-methods study of four classrooms explored the relationship between teachers' expressed beliefs about student engagement, observed engagement practices and student perceptions of the learning environment. Teacher interviews offered support for a typology of engagement consisting of three forms of disengagement and three forms of engagement. Observations of lessons found the teachers varied in how frequently they intervened for engagement during lessons and in the types of engagement they attempted to promote within lessons. Following the qualitative study, students were surveyed in relation to their perceptions of the learning environment and their engagement within the classroom. Class-level differences, particularly in relation to teacher expectations for student engagement, were found and are interpreted in light of the qualitative findings.

Introduction

The concept of engagement continues to capture the attention of education researchers and practitioners (Eccles, 2016; Eccles & Wang, 2012). A major reason for this interest is the oft cited claim that student engagement is associated with positive student outcomes, and in particular academic success (Fredricks et al., 2004; National Research Council and the Institute of Medicine, 2004; Reeve & Lee, 2014), as well as providing protective benefits from school dropout and depression (Finn & Rock, 1997). While there has been an abundance of research into the concept over the last 25 years, at present little is known about how teachers conceptualise student engagement and operationalise the concept in their classrooms, which forms the focus of this study. This study sought to explore the relationship between teachers' expressed beliefs about student engagement and their engagement practices within lessons, as well as the relationship between observed teacher engagement practices and student perceptions of the classroom learning environment.

Studying student engagement in the classroom

Engagement is claimed to be a multi-dimensional construct, with many supporting the three-dimensional framework proposed by Fredricks, Blumenfeld and Paris (2004) consisting of behavioural, emotional and cognitive elements. Behavioural engagement generally refers to school participation, rule following and completing tasks. In contrast, emotional engagement encompasses student feelings, interest and attitudes. Cognitive engagement involves both the use of learning strategies and the psychological investment in learning. While there may be strong support for this conception of engagement, there is considerable inconsistency in the way these dimensions are operationalised in research studies (J. A. Fredricks et al., 2011). The most

common method for studying student engagement is the use of student self-report and teacher-report measures based on one or more of these dimensions.

Fredricks et al. (2011) reported on 14 student self-report instruments used to measure engagement in upper elementary to high school students, finding that only five included all three dimensions of engagement. Five assessed two dimensions and four assessed only one dimension. Looking at the focus for the different measures, nine of the instruments relate to general engagement in school rather than engagement in a particular class. In addition, there were reported inconsistencies in the way that dimensions were operationalised within the instruments (e.g., effort as a behavioural indicator vs. effort as cognitive engagement), and there was limited evidence to support the validity of several of the measures. In an effort to address some of these concerns, and to better represent an 'on the ground' perspective of student engagement, Fredricks et al. (2016) used qualitative interviews with students and teachers to develop a measure of student engagement in math and science classes that better reflects the real-life experiences of teachers and students. The findings of the qualitative data suggested a fourth dimension representing the social aspects of student engagement. While the study provided a welcome inclusion of the perspective of teachers and students, the resulting instrument remains a measure of students' self-reported engagement in classroom learning rather than a measure of how student engagement is operationalised in the classroom. In other words, the measure does not give any insight into the *expectations* for how students should engage in learning within that classroom only how students perceive their own engagement within the classroom. The difference is subtle but may be important if we are to fully understand the phenomena. For example, there may be a difference worth exploring between a student who reports low levels of engagement in a classroom where the expectations for engagement are also low, and a student who reports low

levels of engagement in a classroom where the expectations for engagement are perceived to be high. While it is reasonable to expect that expectations for how students are to engage in classroom learning experiences might differ across classrooms (and perhaps across lessons in the same classroom), to date this has not been explored in the research.

Teachers' conceptions of engagement

While it is agreed that teachers have an important role to play in engaging students, to date there have been limited attempts to understand teachers' beliefs about student engagement and their approaches to engaging students in classroom learning, which is the focus of this research. Berry (2018) interviewed 15 upper-elementary teachers, and developed a typology of engagement to represent the range of meanings teachers expressed when describing engagement. Figure 10 illustrates the different forms of engagement along a continuum from active disengagement (Disrupting) through to active engagement (Driving), with more passive forms of both engagement and disengagement in between.

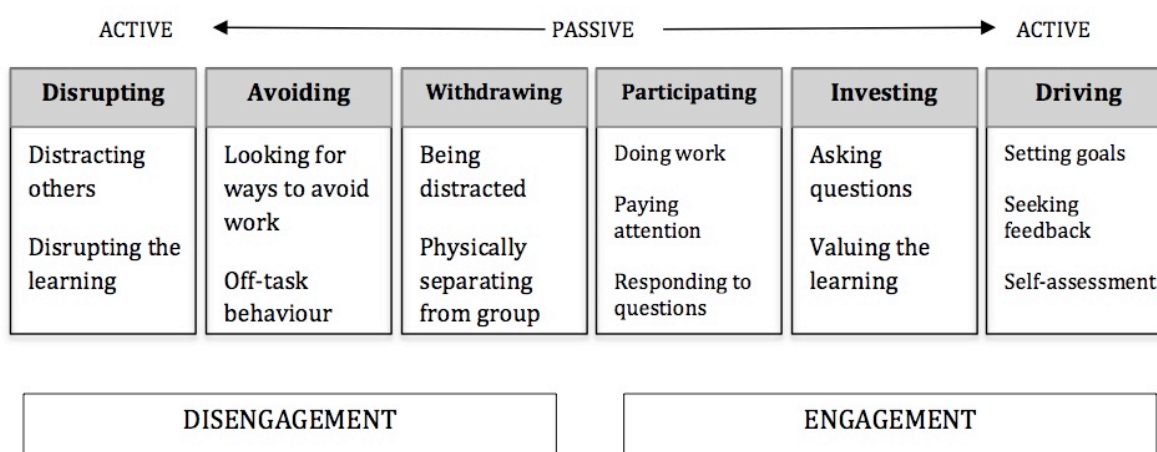


Figure 10. Typology of student engagement as perceived by teachers.

Teachers in that study described three forms of disengagement: Withdrawing, Avoiding and Disrupting. Withdrawing relates to the act of passively withdrawing from the learning experience either by physically separating from the group or by appearing distracted and not focused on the learning experience. A more active form of disengagement is Avoiding, where students actively look for ways to avoid a task or engage in various off-task behaviours such as talking. The most active form of disengagement, Disrupting, involves students actively attempting to disrupt the learning environment, distracting other students or being non-compliant. A longitudinal study of nearly 1300 Australian students reported that while only a small number could be categorised as active and frequent disruptors of the classroom, 20 per cent of students were found to be generally compliant but disengaged from classroom instruction, and there was little difference between these two groups' academic performance (Angus et al., 2010).

The teachers in Berry's (2018) study also described three different forms of engagement: Participating, Investing and Driving. The most passive form of engagement, Participating, involves behaviours that indicate the student is participating in the planned learning experience by being on-task, responding to teacher questions and paying attention. In the Investing form, students show increased interest in what is being learned by asking questions, displaying curiosity and indicating in some way that they believe there is value in what they are learning. The most active form of engagement, Driving, is characterised by students' observable attempts to further their own learning through setting goals or identifying areas for improvement, seeking feedback to help them improve and monitoring or assessing their own progress.

Not all teachers described all forms of engagement and disengagement, rather the typology represents the range of meanings the teachers had when using the broad terms 'engagement' and 'disengagement'. As a representation of teacher beliefs about what it means to

be an engaged or disengaged learner in the classroom, this typology might offer some insight into the expectations teachers have for student engagement in classroom learning experiences.

Teacher expectations for student engagement

Teacher expectations have been frequently investigated and generally refer to expectations teachers have for students' future achievement considering their current level of development, rather than their expectations for student engagement in learning. Teacher expectations for students' future achievement have been shown to influence student achievement, behavioural and socio-psychological outcomes (Wang, Rubie-Davies, & Meissel, 2018). Most commonly research has focused on teacher expectations for individual students rather than class level expectations.

More recent work by Rubie-Davies (Rubie-Davies, 2007) positions expectations as a teacher-oriented construct, relating to their achievement expectations for their students. From this perspective, some teachers were identified as having high expectations for all students while others had low expectations for all of their students. These teachers were also found to differ in their beliefs and practices, and the influence these had on the classroom climate (Rubie-Davies, 2007). Rubie-Davies identified beliefs and practices common to high and low expectation teachers that might provide some insight into the expectations teachers have for how students should engage in learning within the classroom. Most notably, high expectation teachers encouraged students to work together, supported student autonomy by giving them choices in regard to tasks, attempted to incorporate student interests into the planned learning experiences, used more formative assessment to monitor student progress and provide feedback, and set clear goals with students for their learning. In contrast, low expectation teachers were more controlling,

giving students few choices in regard to their learning, used more summative than formative assessment, and monitored the progress of students less frequently (Rubie-Davies, 2007).

Research design

This research used a sequential, exploratory mixed method design (Creswell, 2012) to examine the ways student engagement is conceptualised by teachers and operationalised within their classrooms. Using both qualitative and quantitative methods, enhances the validity of findings by triangulating results across different methods, providing an opportunity to elaborate on findings, and reveal contradictions that might result when examining the same phenomenon using different methods.

The purpose of the qualitative study was to test the validity of the student engagement typology and its usefulness in categorising teacher engagement practices within lessons. Three questions guided the qualitative study: *How do teachers conceptualise student engagement? What approach do they take in engaging students in learning experiences? Is there a relationship between the engagement beliefs of teachers and their engagement practices in lessons?* In the second study, the typology of engagement was used to develop a measure of students' perception of the expectations for their engagement within lessons. The quantitative study aimed to build on the findings from the observations of teacher engagement practices by examining the students' perceptions of the learning within those classrooms. In particular, their perception of the teacher's engagement expectations, their perception of the classroom climate, and their self-reported engagement within the classroom.

Qualitative study

Participants

As the typology was developed through interviews with upper primary teachers, teachers at this level remained the focus in this study. Participants were four teachers from three primary schools located in the Melbourne metropolitan area. Table 16 shows the demographic data relating to the participants. All teachers taught composite Year 5/Year 6 classes.

Table 16

Demographic data for participants and schools

Pseudonym	Gender	Experience	Year level	Age range	School sector	School SES
Robert	Male	3 years	5/6	10-12	Government	High
Christine	Female	6 years	5/6	10-12	Government	High
Kylie	Female	1 year	5/6	10-12	Government	Average
Diana	Female	23 years	5/6	10-12	Catholic	High

Methods

In-depth interviews are recommended when aiming to capture the meanings that participants make of their experiences in their own words (Marshall & Rossman, 2006; Patton, 2002). Hence, each participant was interviewed prior to the observations to explore their beliefs about student engagement in learning. Key questions in the protocol included: *How would you describe student engagement? What do you look for as signs of engagement? Can you describe a time when students were particularly engaged in something? How do you know when someone is disengaged?* Interviews were transcribed and analysed using the categories of engagement in the typology, while also remaining open to the possibility of additional categories. This confirmatory

stage described by Patton (2002) tests the appropriateness of categories developed through inductive analysis.

Observations focused on the teacher and sought to record all attempts to promote the engagement of students in the learning experience. The aim was to capture (as much as possible) each observable instance of the teacher intervening for engagement. This allowed for a qualitative exploration of the teachers' engagement practices, as well as a quantitative exploration in the form of frequency counts. For example, qualitatively exploring the engagement expectations associated with *Participating*, while also exploring the frequency with which teachers intervened to promote *Participating* in lessons. Field notes including descriptions of observed teacher behaviour and direct quotes where possible. Inferences were made about the purpose of these actions and these were followed up in post-lesson discussions. In addition, all field notes were sent to the teacher after each lesson for member checking. The use of member checking or respondent validation is frequently used in qualitative research to ensure there is congruence between the researcher's interpretation and the participant's perspective (Patton, 2002). An extract from one lesson observation is shown in Figure 11 to illustrate this process.

What I saw/heard	My interpretation	Your comments
Didn't call on the first student to put their hand up Prompted students "I should see more hands up" Waited for more to raise their hands	Purpose: - Communicates the expectation that everyone should be thinking about the question and ready to respond, no one is allowed to be passive and let others do the work - May also acknowledge that some students need more time to think and formulate a response	<i>Having had students for 3 terms, I know which students always respond, which ones need prompting, which ones are passive etc. In this case I knew ALL hands should have been raised as these terms were not new and the content/purpose not new at this stage of the lesson. Therefore reminded class that it's not new learning and get them to actively participate from onset of lesson</i>

Figure 11. Extract from Observation 1 Diana. Showing the researcher's recorded observation and interpretation of the event, as well as the teacher's comments.

The analysis of field notes sought to identify patterns in relation to the teachers' purpose for acting and test the viability of using the existing categories of engagement to code these purposes. The decision to focus on *why* teachers act rather than *how* they act was made following the proposal of Kennedy (2016) who advocated parsing teacher practice "into a handful of important, meaningful, and analytically distinct purposes that teachers' actions serve" (p. 10). She identified five common challenges that teachers strive to address, including two relating to student engagement, 'enlisting student participation' and 'containing student behaviour'. This study seeks to provide a finer grained understanding of teachers' engagement purposes by using the six categories of engagement rather than Kennedy's broad problems of practice.

Results

Conceptions of engagement

The analysis of interview data found the six categories (Driving, Investing, Participating, Withdrawing, Avoiding, Disrupting) to be sufficient for categorising the responses of these teachers. Consistent with previous findings (Berry, 2018), not all teachers described all six categories. Both Diana and Christine described all six forms in their interviews. Robert described all but *Withdrawing*, and Kylie did not describe *Avoiding* and *Driving* in her interview. Table 17 shows the number of coded references for each form of engagement and disengagement by teacher.

Table 17

Number of coded references in initial teacher interviews

	Disrupting	Avoiding	Withdrawing	Participating	Investing	Driving
Christine	1	2	6	11	11	3
Kylie	7	0	5	18	8	0
Diana	8	1	9	16	28	22
Robert	9	7	0	16	6	5

Care must be taken in interpreting this as some interviews were longer than others (e.g., Diana's was the longest at over an hour) which inevitably leads to more coded references than a shorter interview (e.g., Robert's was the shortest at 31 minutes). In addition, an absence of coding for a form of engagement does not mean the teacher does not conceive of that form, only that they did not describe it when answering questions in the interview. Keeping that in mind, it is possible to note some patterns in the way each teacher described engagement in their interview. Both Kylie and Robert appeared to emphasise *Participating* in their descriptions of engagement,

whereas Christine placed equal emphasis on *Participating* and *Investing*. In contrast, Diana appeared to place a stronger emphasis on *Investing* and *Driving* in her descriptions.

While no new categories were suggested in the analysis of the interview data, the data did provide further evidence of the existing categories, as shown in Table 18. With the exception of *Driving*, the categories remained close to the original descriptions developed in the previous study. The descriptions of Diana provided an additional element of student collaboration to the category of *Driving* as a key element of this form of engagement. This collaboration could be in the form of working together in relation to a specific task, but also less formal instances of debating issues, challenging each other's thinking and sharing ideas.

Table 18*Teacher conceptions of student engagement and disengagement*

Forms of disengagement	Description	Examples from transcripts
Disrupting	Talking, distracting others, disrupting the learning environment	<i>"When it's individual work, if they're not distracting others I tend to think that they're quite engaged" Kylie</i>
Avoiding	Avoiding the task, being slow to get started, finding excuses to leave the room, letting others do the work in group tasks	<i>"they'll be walking around the classroom to sharpen a pencil or to find a rubber or anything that gets them out of the task that they're completing" Robert</i>
Withdrawing	Being distracted, not interacting with others, pretending to work, tuning out, sitting away from the group	<i>"it's just a physical turning away, if we're sitting on the carpet together, it's up the back, well up the back, sometimes positioning so they can see out the window" Christine</i>
Forms of engagement	Description	
Participating	Being compliant, being on task, being focused, paying attention, doing work, responding to teacher questions	<i>"Probably the first thing is where their focus is at, so if they're looking at their work or quietly completing the task" Robert</i>
Investing	Being curious and interested, enjoying, discussing, thinking, questioning, valuing, making decisions	<i>"It also looks like students who ask a lot of questions, who are keen, who are curious, who want to know more, who are thinking actively about what you are working on" Christine</i>
Driving	Collaborating, setting goals for learning, independence, metacognitive awareness, self-management, transferring skills/knowledge to new situations	<i>"that was important to them, that was the focus that was driving them and every thought they had was what they wanted to do, they kept asking 'When are we having time to plan?', and so it was that collaboration" Diana</i>

The forms of disengagement centre on resisting or avoiding involvement in planned learning experiences. These range from subtle, passive behaviours (Withdrawing) through to overt attempts to disrupt the learning environment (Disrupting). In contrast, the forms of engagement centre on the students' level of willing involvement in the learning experience. These range from compliant, passive participation in what the teacher has planned (Participation) through to active collaboration with others to achieve personally valued learning goals (Driving). For Diana, the notion of student engagement was explicitly linked to learning, as seen in her definition:

Student engagement is a connectedness to what they're learning. I think it is, for me, students are invested in what they're doing. It's an ability to actually do something with what they're learning. (Diana)

Diana made a clear distinction between passive and active forms of engagement, with the passive form focusing on 'doing' a task or what's being asked of them, while the active form required increased involvement and investment on the part of the student. She also reflected on how her own understanding of student engagement had changed during her career, saying

I would say that in the past I have probably been a little bit naive in terms of thinking that engagement is always when they're...the *doing* part, and not really analysing it any further than that, like sometimes I think they're engaged but they're really just 'doing the task' and 'doing' what's being asked of them, but the investment is not there. (Diana)

This gives some indication that teachers can have different understandings of what it means to be an engaged student in the classroom, and that teacher beliefs about student engagement might change over time.

Intervening for engagement in lessons

A key aim of the study was to determine if the categories of engagement and disengagement developed through interviewing teachers could be used to analyse their behaviour within observed lessons. The initial analysis was guided by two basic questions: *Is the teacher responding to some form of perceived disengagement, and if so which form? Is the teacher attempting to facilitate some form of engagement, and if so which form?* The existing six categories proved to be a useful way of coding teacher engagement practices as it supported an exploration into teachers' expectations for engagement within lessons and patterns in intervening for engagement.

Responding to disengagement within lessons. The frequency with which teachers responded to perceived disengagement within lessons can be seen in Table 19. Interventions were coded at Avoiding when the teacher made a comment indicating the student was off-task (e.g., slow to get started on a task). When the teacher responded to a perceived disruption in the learning environment or a perceived distraction to other learners (e.g. talking), it was coded at Disrupting. Finally, the intervention was coded at Withdrawing if the teacher responded to more passive forms of non-participation like not contributing to discussions.

Table 19

Coded instances where the teacher responded to perceived student disengagement

	Withdrawing	Avoiding	Disrupting
Christine	3	5	20
Kylie	5	0	12
Diana	5	0	5
Robert	2	11	21

A single lesson event could be coded at more than one category, for example a teacher responding to a student who was both slow to get started on their work (Avoiding) and talking with their peers (Disrupting).

The most frequently coded response was for disruption. During whole group discussion or teaching, the disengagement behaviours that teachers responded to were primarily disruptions (e.g., talking), and withdrawal behaviours (e.g., not volunteering responses to teacher questions). During individual/group working time, the teachers responded to disruptions (e.g., playing with equipment) and avoidance behaviours (e.g., being slow to get started). Only Kylie and Diana were seen to respond to withdrawal behaviours during this time in relation to students not adequately contributing to their group.

Promoting student engagement within lessons. Following Kennedy's claim (2016) that teachers may settle for 'passive cooperation' rather than more active forms of engagement, it was hypothesised that there would be more observable instances of teachers trying to facilitate this lowest level of engagement with fewer observable instances of teachers facilitating higher levels of engagement. This was confirmed, as seen in Table 20. While the frequency with which teachers intervened to promote Participation was similar, there were larger differences in how frequently they acted to promote Investing and Driving.

Table 20*Coded instances where the teacher responded to promote student engagement*

	Participating	Investing	Driving
Christine	117	54	3
Kylie	107	53	21
Diana	101	77	42
Robert	118	22	4

As with coding for *responding to disengagement*, interventions could be coded at more than one category. For example, in one instance Diana asked students to share a different strategy to solve a problem which was coded at *Participating* as they were asked to respond to a teacher's question and at *Investing* because they were asked to explain their choice (rather than just give an answer) and *Driving* because this required a level of metacognitive awareness.

Promoting student participation. Looking at the interventions coded at Participating, five distinct sub-categories emerged. Each of these represents a different expectation for how the students should be participating: following rules, instructions and routines; responding to teacher questions; listening and paying attention; doing work; and, interacting with others in the task. At times this was explicitly stated, for example when Christine stopped during a whole class discussion to move a group of boys who were talking and remarked, “so that way you are going to pay attention”. At other times it was recorded as an implicit expectation, for example when the teacher asked a question to the group and looked around for hands to be raised.

Generally speaking, Participating during whole group instruction or discussions involved listening, paying attention, and responding to teacher questions. During individual/group work time, unsurprisingly, the focus shifted to doing work. The most noticeable difference between

teachers was in relation to peer-to-peer interactions. The expectation that students would interact with each other during learning experiences was a noticeable feature of Kylie and Diana's lessons, but less so for Robert and Christine, as seen in the number of coded references to *Interact with others* in Table 21.

Table 21

Promoting Participating during lessons

	Encouraging students to:				
	Do work	Follow rules, instructions and routines	Listen and pay attention	Respond to teacher questions	Interact with others
Christine	58	17	41	35	4
Kylie	47	19	30	34	19
Diana	44	16	31	41	34
Robert	54	28	46	34	9

Promoting student investment in learning. Analyses of interventions coded at the Investing category supported five sub-categories: asking questions, making links and connections, thinking deeply, having positive emotions, and sharing ideas or opinions. Together they represent the different expectations teachers had of students at this level of engagement. *Asking questions* in this instance involved seeking greater understanding of the concept rather than asking questions about task requirements. *Sharing ideas or opinions* often occurred as a response to teacher questioning, but involved more than just a right or wrong answer. This included offering ideas, explaining thinking, giving opinions, or sharing interpretations. When a teacher prompted students with questions such as why, how do you know or what if, it was

coded at *Thinking deeper*. When teachers encouraged feelings of confidence, pride, excitement and enjoyment, the intervention was coded at *Having positive emotions*.

As with the expectations for Participation, at times these were explicit, as when Kylie said, “I want you to read these to your family and to be proud of them, I want you to feel like that.” At other times, expectations were more implicit, as when she prompted students within a class discussion with repeated calls for, “What else?” as a way of encouraging deeper thinking without explicitly saying why she wanted more responses.

Looking at the coded references for Investing, greater variation between teachers begins to emerge (Table 22). Most frequently teachers intervened to encourage students to share their ideas or opinions. This primarily occurred during whole group discussions for Robert and Christine. In contrast, Kylie and Diana continued to push for this behaviour during task completion, potentially as a result of implementing more group experiences in their lessons.

Table 22

Promoting Investing during lessons

	Encouraging students to:				
	Ask questions	Have positive emotions	Make links and connections	Share ideas and opinions	Think deeply
Christine	2	13	9	42	9
Kylie	0	6	15	49	10
Diana	3	18	19	63	17
Robert	1	8	4	19	2

Promoting student-driven learning. The analysis of interventions coded at Driving found five sub-categories of student behaviour that were being promoted: being independent,

transferring learning to a new situation, thinking about their thinking, reflecting on their learning and setting goals for their learning. These interventions were far less frequent than those aimed at promoting Investing or Participating. Table 23 shows the frequency with which teachers intervened for this purpose. Both Kylie and Diana intervened to promote Driving behaviours in each of their lessons, in comparison Christine and Robert had only one of their lessons coded at this category.

Table 23

Promoting Driving behaviours during lessons

	Encouraging students to:				
	Be independent	Reflect on their learning	Set learning goals	Think about their thinking	Transfer learning
Christine	0	1	0	2	0
Kylie	6	5	9	4	0
Diana	15	17	14	9	4
Robert	0	4	0	0	0

Diana's lessons provide the clearest example of how this form of engagement was promoted and encouraged. Students were regularly prompted to reflect and share their learning and thinking with others. There were times when she explicitly prompted them to apply their existing knowledge and skills to a new situation. For example, in one lesson the class was practicing finding the fraction of a quantity and she stopped to give instructions, saying, "I want to see if you can take that and apply it to worded problems." She then prompted them to think about their previous experiences with worded problems.

In another lesson the students were asked to record personal learning goals for the session. This was supported by having them reflect on their previous self-assessment to identify the

behaviour they were trying to improve on and recording multiple student examples on the board as models of what she was looking for. Similarly, Kylie asked students to identify individual writing goals and describe how they would achieve that in the next lesson.

Finally, Diana encouraged student independence by allowing them time to attempt tasks before intervening. Before intervening she would observe students as they worked or ask them to explain what they had done so far. When intervening, she frequently used questioning to support them to identify what they needed to do, as seen in the extract from Lesson 4 below:

Observation notes: T moves to speak with one student who has asked if she needs to show her working out T: "What is the purpose of working out?"

Teacher notes: Due to the problem-solving nature of this task, tried to stress the importance of showing working out and to allow for self-checking. However, if a student feels confident, I let them complete it using mental calculations. I will tend to go back to that student quickly to check other answers are correct though before telling them to show working out if necessary. Knowing students' abilities helps me in this decision making – don't want to get students to do extra if their mental calculations are strong – will only hinder and prolong the process. Also, by getting (student name) to articulate her own answer, it empowers her to make her own choices regarding self-management and the best strategy for her.

Teacher approaches to student engagement

Looking at the percentage of coded references for each form of engagement in Figure 12 provides some indication of the distinctly different approaches to promoting student engagement taken by these teachers.

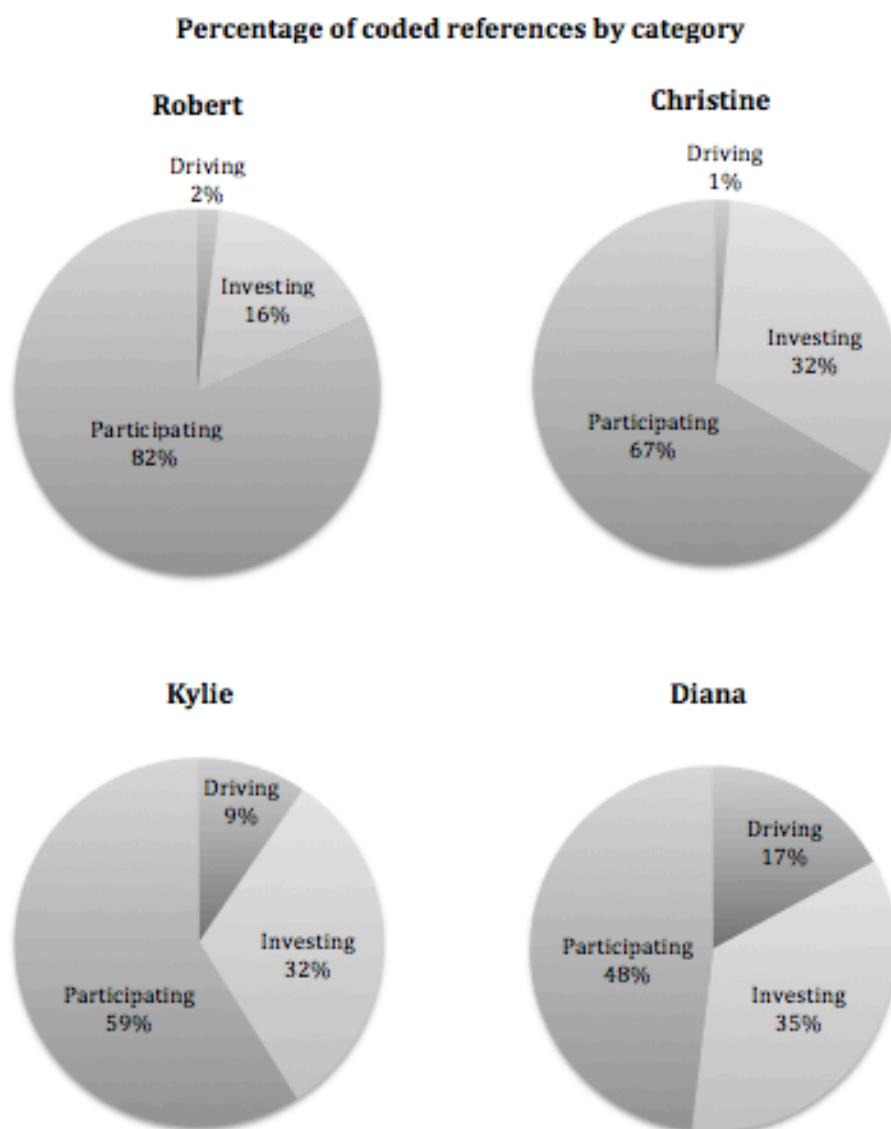


Figure 12. Percentage of references coded for each form of engagement in observed lessons. Representing the coded references for each teacher across four lessons.

While all four teachers intervened regularly to encourage student participation in the lesson, there were clear differences in their attempts to get students invested in learning and actively driving their own learning experience. Employing the same categories for both interviews and observations allowed for a comparison between teachers' expressed beliefs about

engagement in interviews and their observed engagement related practices within lessons, shown in Table 24.

Table 24

Comparison of coded references to promoting engagement during lessons and coded references to engagement in the interview

	Observations			Interview		
	Participating	Investing	Driving	Participating	Investing	Driving
Christine	117	54	3	11	11	3
Kylie	107	53	21	18	8	0
Diana	101	77	42	16	28	22
Robert	118	22	4	16	6	5

In both her descriptions of student engagement and her attempts to promote engagement in lessons Christine emphasised *Participating* and *Investing* over *Driving*. Robert emphasised *Participating* over the other forms in both his interview and his observed interventions. Although Kylie emphasised *Participating* in her interview, in each of her lessons she intervened to promote all three forms of engagement, suggesting some disconnect between her expressed conceptions of engagement and her enacted engagement practice. Finally, Diana communicated the most comprehensive conception of student engagement in her interview, and frequently intervened to promote all three forms of engagement in her lessons. From this analysis, three distinct approaches to engaging students in classroom learning emerge: task-oriented, relationship-oriented, and interaction-oriented.

Task-oriented approach - Robert. When Robert intervened within lessons to promote the engagement of his students, it was primarily to encourage or facilitate student participation in

the lesson. Tasks were predominantly individual and the use of peer-peer interaction was infrequent. The focus of his engagement related interactions during the first part of the lesson was on ensuring students knew what to do in the task and how to do it. As such, there was a strong sense that engagement involved keeping on task. He used questioning to encourage the class to participate in discussions, either by sharing their ideas and opinions or by demonstrating their understanding of the skill or content they were learning. During individual task time, Robert moved around the room answering questions about the task, clarifying instructions for the task and monitoring students to ensure they were on task. At times, he would stop and work with individual students to provide extra support as they worked. The importance of the task was central to Robert's conception of student engagement, as seen in his interview:

I think ideally you want kids intrinsically motivated to complete tasks but there are times when they need motivation from – be it the teacher, be it positive reinforcement, be it a reward system, whatever it might be just to enhance that engagement in learning.

When asked what he looked for as signs of engagement, he replied:

Probably the first thing is where their focus is at, so if they're looking at their work or quietly completing the task, I would say is the first major sign. If they are chatting or discussing things, it is to do with the work they are completing rather than other things.

Relationship-oriented approach - Christine. The main difference between Christine's approach to engaging students and Robert's approach is the frequency with which she attempted to promote Investing in the learning experience. She spent more time encouraging students to share their ideas and opinions during whole class discussions, and frequently expressed her own enjoyment and positive feelings about the work they were doing to encourage them to feel

excited about it as well. In one lesson she asked students, “What are you *excited* about?” and made comments such as, “How fun is that!” Christine’s emphasis on the importance of positive emotions can be seen in her descriptions of student engagement in the interview:

Students who enjoy being at school and they have relationships with the teachers and with other students and with other people in the community. They are happy members of the community.

When asked if student engagement looked different in different lessons, she responded:

No, because it’s still to do with participation and responding and volunteering responses.

No, I think it’s still pretty similar, but it’s just how hard I have to work to bring everyone with me on the exciting journey that is different.

In this response, the importance of participation is highlighted, but along with that the expectation that students would *want* to participate because of the positive feelings associated with the experience. For Christine, the importance of relationships was central to engaging her students.

For me it’s all about my relationship with the student... I would be devastated if I found out that there was anybody in my class that felt that I didn’t have their back. It’s all about them knowing that I’m here and the reason I’m here is because I want them to come with me on this amazing journey of primary school.

Along with promoting excitement and enjoyment in her lessons, Christine frequently intervened to ensure students felt confident and comfortable about participating in the lesson. For example, she ended one lesson with an opportunity to share their work, saying, “I’d really like it if everyone shared something, even if it’s just a line, but if you really don’t want to I won’t make you.” To promote confidence, she frequently provided praise and positive feedback to students.

As with Robert, the tasks were predominantly independent, and although students were regularly encouraged to share their thoughts this was generally in response to her questioning. The expectation that students would interact directly with each other (independent of the teacher) was limited to one of the four lessons.

Interaction-oriented approach - Kylie and Diana. One of the most noticeable differences between the approaches of Robert and Christine and that of Kylie and Diana was in use of peer interactions and the emphasis they placed on developing students' awareness of their own thinking and learning. As a result, students were regularly expected to work together in a way that required them to communicate their thinking, reasoning and strategy use to their peers. The clearest examples of this came from Diana's lessons, and she spoke in her interview about explicitly teaching the skills of communication, collaboration, thinking and researching as part of the school's inquiry learning focus.

There were times in every lesson when students had to work with others. This ranged from formal literature circles with established roles and procedures to more informal pair-and-share activities. Diana frequently included opportunities for students to interact with each other during whole group discussions and shared the multiple purposes for doing so in the observation notes

Teacher notes: Maintains engagement, especially of those who are very competent with the skill being reviewed. Changes up the lesson from listening to active participation with partner whilst still in the whole class setting. Students have expressed that they like working with others to solve problems, especially in Math, so this is a simple way to address this need/want. Also, get to see their collaborative skills and listen in to more than one student's thinking before revealing the answer.

The focus for these teachers when attempting to promote student engagement was on supporting processes such as thinking, communicating and reasoning more than completing a specific task. From this perspective, a student who is engaged is expected to be actively participating, thinking, interacting with others and investing effort in the learning experience.

The main differences between Kylie and Diana's approach was in the frequency with which Diana intervened to promote the *Investing* and *Driving* forms of engagement, and her greater emphasis on behaviours associated with *Driving*. Another key difference was in their descriptions of student engagement in the interview. Diana had a more comprehensive description of the concept, including references to each of the six forms of engagement/disengagement, whereas Kylie's descriptions focused more heavily on *Participating* and did not include references to all forms.

Discussion

Others have attempted to link teacher beliefs with their classroom practice, with mixed results (Fives & Buehl, 2011). The findings of this study are also mixed in this regard. While it is true that some teachers appeared to have congruent beliefs and practices (e.g., Diana), others were not. Most notably, Kylie's descriptions of engagement in her interview were heavily weighted towards *Participating*, with no mention of any behaviours related to *Driving*. However, in practice she was intervening to promote all three forms of engagement within her lessons. That Kylie was in her first year of teaching might have hindered her ability to communicate her conceptions of engagement and it may be that new teachers are still developing an awareness of their own practice and their understanding of concepts such as student engagement and learning. This may lead to a mismatch between what they do, what they are aware of doing, and their ability to communicate that to someone else.

Observing teachers' engagement practices in lessons and identifying the reasons why they intervened in relation to student engagement provides some insight into their expectations for engagement and their implicit theories of learning. Figure 13 presents the three different approaches to engaging students in classroom learning described in this study, including the associated expectations for engagement and implicit beliefs about learning.

Task Oriented	Relationship Oriented	Interaction Oriented
• <i>Students learn best when they are participating in classroom events and completing set tasks</i> • <i>Engagement expectations: answering teacher questions, being focused, getting work done</i>	• <i>Students learn best when they are happy, secure and enjoying classroom learning experiences</i> • <i>Engagement expectations: sharing ideas with the group, feeling confident, feeling excited, being interested</i>	• <i>Students learn best when they are challenged and interacting with others in classroom learning experiences</i> • <i>Engagement expectations: explaining thinking, questioning others, communicating ideas, reflecting on learning</i>

Figure 13. Teacher approaches to engaging students in classroom learning. Representing the different approaches taken by teachers during lessons, the expectations for student engagement behaviours, and the implicit beliefs about learning.

Teachers had elements of each approach and it would be incorrect to say, for example, that Robert did not attend to relationships or that Diana did not care about the tasks students were assigned. Rather, the approaches are proposed as a way of describing the dominant emphasis teachers placed on aspects of student engagement during the lessons. The findings add to our understanding of what it means to engage students in learning and being able to categorise

teacher engagement approaches in this way may support future investigations into the relationship between teacher practice and student engagement.

While students in all four classrooms were encouraged to interact with the teacher, one clear division between the teachers was in their belief about the role of peers in student engagement. For both Diana and Kylie, there were clear expectations for students to interact with each other during learning experiences and this was a key component of 'being engaged' for both teachers. Diana, in particular, consistently monitored student interactions during group working time and intervened to prompt or scaffold this when necessary. Robert and Christine did not appear to share the belief that peers were integral to student engagement in learning. When asked what role peers played in student engagement, Christine laughed and replied, "To not distract." She went on to say that the students generally preferred to work in small groups or with partners but that it presented problems for some students who were poor at self-management or who let others do all the work. In the lessons that were observed, Christine and Robert used predominantly individual tasks and rarely encouraged peer-to-peer interactions.

Quantitative study

Following the known-groups method, the students for this study were recruited from the classrooms of the four participating teachers in the qualitative study. Based on the teacher's approach to engaging students in lessons, it was anticipated that their students might perceive different expectations on their engagement in learning experiences and have different perceptions of and experiences within that classroom environment. All students in the four classes were invited to participate in the study, and consent was sought from both the students and their parents/guardians. In total, 72 students completed the survey, with the breakdown per class shown in Table 26.

Table 26*Participant demographics by class*

Class	Number of students *				Response rate	
	Boys	Girls	Year 5	Year 6	Total	
1	12	11	12	12	24	100%
2	7	5	7	5	12	52%
3	9	10	11	8	19	83%
4	10	7	9	8	17	71%
Total	38	33	39	33	72	77%

* One student in Class 1 chose not to nominate their gender

The sample consisted of slightly more boys than girls, and slightly more Year 5 students than Year 6 students. There was an average response rate of 77%, but it should be noted that Class 2 had only 52% of students participating. This must be taken into account when interpreting the results. Interpretations of the data collected for Class 1, where all students participated, could be made with more certainty than those made for Class 2 where the responses of 48% of the students is unknown.

Measures

A single questionnaire was developed consisting of three sets of items and two questions relating to student demographics. The first set of questions was a modified version of the *What is Happening in This Class?* (WIHIC) questionnaire (Aldridge, Fraser, & Huang, 1999) designed to measure the psycho-social classroom environment. Second was a set of items from the Math and Science Engagement Scales (Wang, Fredricks, Ye, Hofkens, & Linn, 2016), a self-report measure of student engagement. Finally, a set of items was designed for this study to measure student perceptions of teacher engagement expectations. All items had a common 5-point response Likert scale (Almost Never, Seldom, Sometimes, Often, Almost Always).

What is Happening in This Class? (WIHIC). For this study, 16 of the 20 items from Sinclair and Fraser's (2002) modified inventory were used and an additional nine items were added from the original WIHIC questionnaire. These additional items were added to better probe specific aspects of student involvement, cooperation and completing tasks in class. For example, given the emphasis on student interaction in previous studies, four items from the original WIHIC were added to probe students' perceptions of peer interactions and their relation to classroom learning (e.g., *When I work in groups in this class, there is teamwork*). One of the items from the Cooperation subscale is reverse coded (*I work alone instead of in groups*). Table 27 provides a breakdown of the scales and sample items for each scale.

Table 27

Scales and sample items for the What is Happening in this Class (WIHIC) measure of classroom environment

Scale	Number of items	Sample item	Source
Teacher Empathy	7	My teacher cares about my feelings	Sinclair & Fraser (2002)
Cooperation	6	When I work in groups in this class, there is teamwork	Sinclair & Fraser (2002) Aldridge et al. (1999)
Involvement	7	I give my opinions during discussions in this class	Sinclair & Fraser (2002) Aldridge et al. (1999)
Task Orientation	5	I pay attention during class	Sinclair & Fraser (2002) Aldridge et al. (1999)

Math and Science Engagement Scales. There are a variety of different instruments that are designed to measure student engagement, however there are reported inconsistencies in relation to what aspects of engagement are included (Fredricks et al., 2011) and concerns over

how well these measures reflect the everyday experiences of teachers and students within classrooms (Fredricks et al., 2016). In response to this, Fredricks et al. (2016) used qualitative interviews with students and teachers to develop their self-report measure of student engagement in math and science. While the ecological validity of the measure may have been enhanced by the inclusion of teacher and student perspectives, the question still remains as to whether this measure accurately represents the way that students and teachers think about the concept of engagement within lessons. In particular, the interview prompts and initial coding scheme were designed with the existing three-dimensional model in mind (i.e., behavioural, emotional, cognitive), and although the interviews began with an unprompted exploration of the participant's understanding of the concept there is no information as to whether these responses suggested a multi-dimensional view of engagement such as the one favoured by the researchers. Despite these concerns, the measure provides the best available option for those seeking a measure that reflects the experiences of those in the classroom.

The student-report instrument consists of 33 items (8 behavioural, 8 cognitive, 10 emotional, 7 social). Wang et al. (2016) documented evidence of the development and validation of the scales. The authors reported moderate to high reliability for each of the subscales (Cronbach's alpha ranging from .73 to .89). For the purposes of this study, three items were selected from each of the four scales. Minor adjustments were made to the wording of items to reflect the generalist primary classroom rather than a science/math class. For example, *I often feel frustrated in science/math class* was changed to *I often feel frustrated in class*. Four of the items are reverse coded, one for each scale. Table 28 provides details of the scales and items used in this study.

Table 28*Scales and items measuring student engagement in the classroom*

Scale	Number of items	Items
Cognitive engagement	3	<i>I try to understand my mistakes when I get something wrong</i> <i>I don't think that hard when I am doing work in class (rev)</i> <i>I try to connect what I am learning to things I have learned before</i>
Behavioural engagement	3	<i>I keep trying even if something is hard</i> <i>I complete my work on time</i> <i>I do other things when I am supposed to be paying attention (rev)</i>
Emotional engagement	3	<i>I enjoy learning new things in class</i> <i>I feel good when I am in class</i> <i>I often feel frustrated in class (rev)</i>
Social engagement	3	<i>I try to work with others who can help me in class</i> <i>I try to help others who are struggling in class</i> <i>I don't like working with others in class (rev)</i>

Teacher Expectations for Student Engagement. As there is no pre-existing measure to elicit student perceptions of teacher expectations for how they will engage in classroom learning experiences, a new measure was developed using the typology of engagement as described by teachers as the theoretical basis. As the intent was to measure expectations for engagement, rather than expectations in relation to disengagement, only the three forms of engagement (Participating, Investing, Driving) were used in the item development. The qualitative data collected in previous studies provided a rich source of teacher descriptions of student engagement during interviews, and the observations provided additional data relating to teacher

attempts to facilitate student engagement within lessons. These data sources were integral to the writing of items that were relevant and representative of everyday classroom discourse.

Colleagues with experience in survey research and a background in classroom teaching evaluated the items for clarity, conciseness, face validity and appropriateness for upper primary students.

The new measure consisted of three subscales representing the three distinct forms of engagement from the typology. Four items represented each subscale, for a total of 12 items. Table 29 provides the details of each subscale and the related items.

Table 29

Scales and items measuring student perception of teacher engagement expectations

Scale	Number of items	Items
Participating	4	<i>My teacher encourages us to listen when he/she is teaching us something</i> <i>My teacher asks us questions during lessons</i> <i>My teacher encourages us to finish our work during lessons</i> <i>My teacher asks us to work together on activities</i>
Investing	4	<i>My teacher encourages us to ask questions about what we are learning</i> <i>My teacher asks us to share our ideas with each other</i> <i>My teacher encourages us to enjoy learning in class</i> <i>My teacher encourages us to see how what we are learning is related to life outside of school</i>
Driving	4	<i>My teacher expects us to explain how we found an answer</i> <i>My teacher asks us to set our own learning goals</i> <i>My teacher encourages us to talk with each other about how we learn</i> <i>My teacher encourages us to explain what we need to do to improve</i>

Procedures

Each participating student was provided with a paper questionnaire containing two demographic questions relating to gender and current year level, followed by the 36-item questionnaire. Following Sinclair and Fraser's (2002) example, an explanation of each response anchor was provided in writing at the top of each questionnaire. To avoid confusion, the same 5-point scale was used throughout the questionnaire. Items for each of the three measures were clustered together beginning with the WIHIC items and ending with the self-report student engagement items. Within each cluster, the items were arranged in a cyclical order (as was done in the WIHIC studies) so that all subscales were interspersed. For example, the items representing the WIHIC were arranged so that an item assessing Teacher Empathy was followed by items assessing Cooperation, Task Orientation, and Involvement in that order. The complete student questionnaire can be found in the appendix.

Once the consent forms were collected, the researcher visited each classroom to administer the survey. The researcher began by explaining the purpose of the questionnaires, explaining the rating scale, and answering any questions that the students asked. A script was written to ensure consistency each time the questionnaire was administered. The students were assured of their anonymity and encouraged to answer as truthfully as possible. No names were recorded on the booklet, and there was no way of identifying individual students from the completed questionnaires. Each booklet was assigned a code that represented the class number and an assigned student number (e.g., 1_18 indicated that this was Student 18 in Class 1). All questions were read aloud by the researcher to negate any potential difficulties relating to literacy levels or learning difficulties. Total time for each session was under 30 minutes, including explanations and administering the questionnaire.

Data analysis

As the existing measures (WIHIC and student engagement scales) were not used in their original form, it was important to establish the reliability and validity of these modified scales, as well as the newly created items. This was followed by a comparison of the means to explore between group differences.

Exploratory factor analysis. To examine the construct validity of the instrument, exploratory factor analysis was conducted. Given that student perceptions of the classroom environment and their perceptions of the teacher's engagement expectations are both influenced by student-teacher interactions in the classroom, it was anticipated that there might be some cross loading of these items. Maximum likelihood analysis with Promax rotation suggested a five-factor structure, explaining 58% of the total variance. All eigenvalues greater than 1 and a scree test of the percentage of variance explained were used to decide the number of factors to retain. Following the first factor analysis, four items were removed, as they did not load onto any factors, three were from the WIHIC and one from the newly developed items (*My teacher encourages us to finish our work during lessons* (Participating)). Four of the factors closely aligned with the four subscales from the WIHIC (Task Orientation, Teacher Empathy, Involvement, Cooperation) and the fifth factor represented the perceived teacher expectations for student engagement (Engagement Expectations). All of the newly developed items loaded onto the Engagement Expectations factor except for the one item identified earlier that did not load onto any factor. In addition, three WIHIC items loaded onto their own factor and the Engagement Expectations factor. These included two Cooperation items (*I learn from others in this class* and *Students work with me to achieve class goals*) and one Task Orientation item (*Getting work done in class is important to me*). Three student engagement items also loaded

onto the Engagement Expectations factor, two Emotional Engagement items (*I enjoy learning new things in class* and *I feel good when I'm in class*) and one Cognitive Engagement item (*I try to connect what I am learning to things I have learned before*). Looking at the newly developed items, three of the four Investing items also loaded onto other factors (Involvement, Teacher Empathy and Task Orientation), and two of the three remaining Participating items also loaded onto Teacher Empathy. All four of the Driving items loaded only onto the Engagement Expectations factor.

In total, fifteen items loaded onto more than one factor and these items were examined both theoretically and empirically to determine if they should be included, and if so, under what factor. Of these items, there were a total of seven items from the WIHIC, three student engagement items and five expectations for engagement items. Decisions about the retention and deletion of items were first considered empirically. Cross-loading items were examined and retained in the factor with the highest loading if the highest factor loading was greater than 0.6 and the lowest factor loading was less than 0.4. If the item did not fit these criteria, it was then considered to determine if it was more theoretically consistent with one factor over another. If the item did not empirically and/or theoretically fit more clearly into one factor, it was removed. In total, 12 items were removed after the first factor analysis and a further three were removed after a second factor analysis, leaving a total of 33 items across five factors as shown in the pattern matrix in Table 30. Of the 12 newly developed items seven remained (3 Driving, 3 Investing, 1 Participating). These items along with two items from the Math and Science Engagement Scales (1 cognitive engagement, 1 emotional engagement) made up the Engagement Expectations factor.

Table 30

Factor loadings and communalities based on a maximum likelihood analysis with Promax rotation

	TO^a	EE^b	TE^c	IV^d	CO^e
I pay attention during class	0.919	-0.28	-0.22	0.136	0.103
I do other things when I m supposed to be paying attention	0.789	-0.136	-0.217	0.277	0.157
I know what I am supposed to learn in class	0.701	0.077	0.131	-0.211	-0.248
I try to understand my mistakes when I get something wrong	0.656	0.036	0.011	0.048	-0.054
I understand how to do my work in class	0.594	0.038	0.254	-0.277	-0.199
I keep trying even if something is hard	0.588	0.065	0.06	0.104	-0.152
Getting work done in class is important to me	0.56	0.324	-0.006	-0.063	0.105
I compete my work on time	0.455	0.049	0.282	-0.079	-0.038
My teacher encourages us to explain what we need to do to improve	0.03	0.866	-0.243	-0.083	-0.102
My teacher asks us to share our ideas with each other	-0.117	0.815	0.089	-0.031	-0.01
My teacher encourages us to see how what we are learning is related to life outside of school	0.034	0.752	-0.351	0.057	0.033
I try to connect what I am learning to things I have learned before	0.089	0.533	0.244	-0.037	0.096
My teacher encourages us to ask questions about what we are learning	0.264	0.509	0.013	0.075	0.092
My teacher asks us to work together on activities	-0.16	0.506	0.074	0.086	0.016
My teacher asks us to set our own learning goals	-0.107	0.467	-0.139	0.112	0.018
I enjoy learning new things in class	0.149	0.432	0.223	0.144	-0.018
My teacher encourages us to talk about how we learn	0.257	0.385	-0.075	-0.029	0.268
I ask the teacher questions	-0.257	-0.169	0.823	0.04	0.179
I answer questions during class	0.04	-0.255	0.76	0.082	-0.209
I give opinions during discussions in this class	0.04	0.093	0.71	-0.031	-0.106
In class, I help others with classwork	0.139	0.006	0.6	0.121	0.107
I am asked to talk about how I solve problems in this class	0.063	-0.154	0.463	0.068	0.088
I try to help others who are struggling in class	0.096	0.269	0.418	0.103	0.198
My teacher is fair to all the students in class	-0.129	0.184	0.002	0.776	-0.344
My teacher likes all the students in my class	0.009	-0.049	0.086	0.749	0.018

The teacher is as friendly to me as to other students	-0.02	0.145	-0.038	0.727	-0.253
My teacher likes me	0.164	-0.073	0.08	0.613	0.014
My teacher treats me the same as other students in class	0.11	-0.146	0.243	0.578	0.109
My teacher cares about my feelings	0.005	0.112	-0.024	0.454	0.206
I work alone instead of in groups	-0.03	-0.077	-0.018	-0.253	1.028
I don't like working with others in class	-0.14	0.253	-0.007	0.035	0.591
I try to work with others who can help me in class	-0.178	0.201	0.239	0.178	0.391
I work with other students in class	0.092	-0.072	0.305	-0.086	0.336

^a Task Orientation. ^b Engagement Expectations. ^c Teacher Empathy. ^d Involvement. ^e Cooperation.

Correlations between the factors were examined (see Table 31), with correlations ranging between .03 and .52. Cronbach alpha's were calculated for each factor and demonstrated acceptable levels of internal consistency. The Task Orientation factor consisted of eight items ($\alpha = .87$), the Engagement Expectations factor consisted of nine items ($\alpha = .85$), the Teacher Empathy and Involvement factors consisted of six items each ($\alpha = .84$ and $.81$), and the Cooperation factor consisted of four items ($\alpha = .73$).

Table 31

Factor correlation matrix

Factor	1	2	3	4	5
1	1.00	0.52	0.42	0.26	0.03
2	0.52	1.00	0.52	0.37	0.25
3	0.42	0.52	1.00	0.39	0.16
4	0.26	0.37	0.39	1.00	0.38
5	0.03	0.25	0.16	0.38	1.00

Comparing the means. Based on the findings reported in the qualitative study, it was hypothesised that there might be class level differences in the students' perceptions of the learning environment, in particular their perception of the teacher's expectations of how they

should engage in classroom learning experiences. As a first step in testing this hypothesis, a comparison of the class level means for each factor was undertaken and is presented in Figure 14.

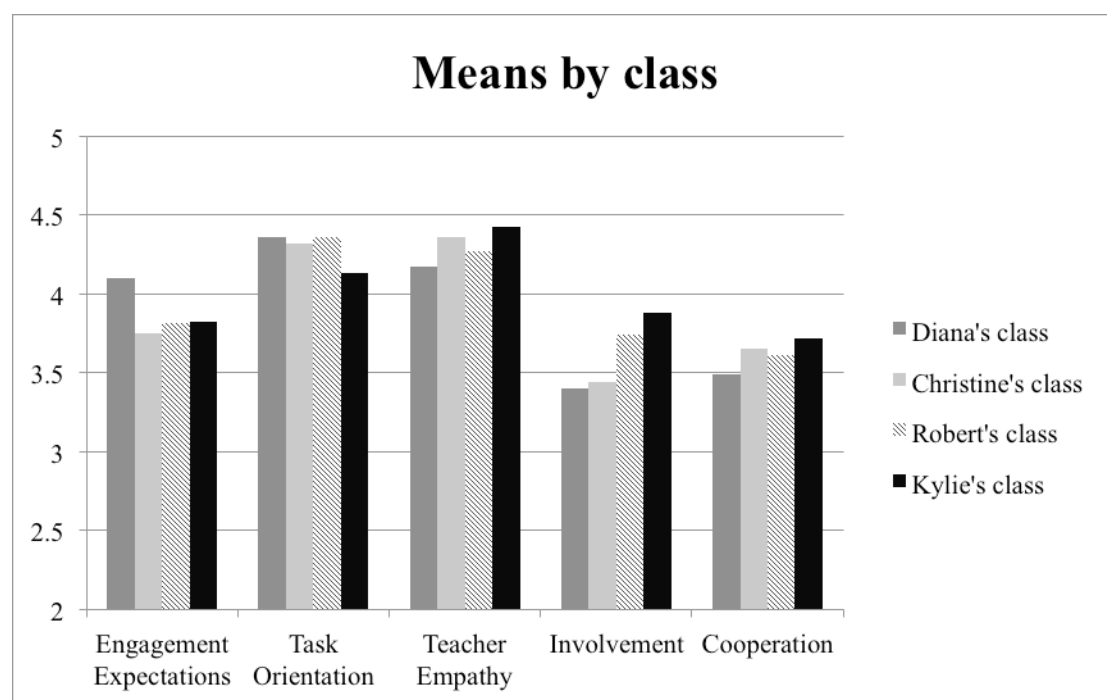


Figure 14. Comparing means by class for each factor.

The students in Diana's class reported higher perceived expectations for their engagement within lessons, but lower levels of Teacher Empathy, Involvement and Cooperation. In contrast, Kylie's students reported lower levels of Task Orientation than the other classes but higher levels of Involvement, Teacher Empathy and Cooperation. The only statistically significant difference was found between Diana's class and Kylie's class in relation to student reported involvement in the classroom, with Kylie's students reporting higher levels of Involvement ($M=3.88$) than Diana's students ($M= 3.40$), $t(39) = 2.32$, $p<.05$. In order to investigate the practical significance of these differences, especially given the small sample size, effect sizes were calculated between the classes.

Perceived expectations for student engagement. Given the differences in the observed teacher engagement practices within lessons, it was hypothesised that students in those classrooms might have different perceptions of how they were expected to engage in classroom learning experiences. In particular, because Diana and Kylie both attempted to facilitate all three forms of student engagement in their lessons, it was anticipated that their students might perceive higher engagement expectations than students in Robert's and Christine's classes. As seen in Figure 8, this proved to be the case for Diana's class but not for Kylie's. The magnitude of the difference between perceived engagement expectations in Diana's class and those in Christine, Robert and Kylie's classes was found to be high ($d=0.57$, 0.54 and 0.49 respectively) as shown in Table 32.

Table 32

Comparing student perceived engagement expectations to Diana's class

Class	Mean for Eng Exp	SD	Effect size compared to Diana's class
Diana (n=24)	4.10	0.42	
Christine (n=12)	3.75	0.82	0.57
Robert (n=19)	3.81	0.68	0.54
Kylie (n=17)	3.82	0.75	0.49

Self-reported involvement in the classroom. The other area of noticeable difference between the classes was in the students' self-reported involvement in the classroom (see Table 33). Students from Kylie's class reported the highest levels of Involvement ($M= 3.88$), followed closely by Robert's class ($M= 3.74$). Students in Diana's class reported the lowest levels of Involvement ($M= 3.40$), with Christine's class reporting similar levels ($M= 3.44$).

Table 33*Comparing means for reported Involvement*

Class	Mean for Involvement	SD	Effect size compared to Kylie's class	Effect size compared to Robert's class
Diana (n=24)	3.40	0.64	0.73	0.52
Christine (n=12)	3.44	0.81	0.59	0.40
Robert (n=19)	3.74	0.66	0.22	
Kylie (n=17)	3.88	0.69		-0.22

Comparing Diana's and Kylie's classes. Looking at the comparisons between Diana's class and Kylie's class means, small to moderate effect sizes were found on all five factors. In addition to the Engagement Expectations and Involvement differences reported above, smaller effects were found in relation to Teacher Empathy ($d = -0.47$), Task Orientation ($d = 0.36$) and Cooperation ($d = -0.32$) when comparing the responses of Kylie's students to those of Diana's (see Table 34). This was unanticipated given the two teachers were found to have similar approaches to student engagement in the observed lessons.

Table 34*Class level differences between Diana's and Kylie's classes*

Class		Mean	SD	Effect size compared to Diana's class
Diana (n=24)	Task Orientation	4.36	0.54	
	Teacher Empathy	4.17	0.61	
	Cooperation	3.40	0.75	
Kylie (n=17)	Task Orientation	4.13	0.76	0.36
	Teacher Empathy	3.88	0.46	-0.47
	Cooperation	3.72	0.70	-0.32

Discussion

The findings from the qualitative study suggested clear differences in the expectations teachers had for how students were to engage in classroom learning experiences, particularly between the classes of Diana and Kylie and those of Robert and Christine. This was most apparent in their attempts to facilitate the Driving form of engagement within lessons. Based on these findings, it was anticipated that the students in Diana's and Kylie's classes would perceive higher expectations on their engagement, a hypothesis that was partially supported in the findings from the survey study. The students in Diana's class did perceive higher expectations on their engagement in classroom learning experiences compared to the students in the other classrooms and the effect size was moderate in each case. However, the students in Kylie's class did not, with their responses comparable to those in Robert's and Christine's classes.

The differences between Kylie and Diana's classes were unexpected and there are a number of possible explanations. First, the classroom observation data revealed Kylie to have a similar approach to engaging students as Diana, although not quite as strong. While she attempted to promote all three forms of engagement in all of her lessons, she did so with less frequency than Diana when it came to the Investing and Driving forms of engagement. It is possible that this had some influence on student's perception of the expectations on their engagement. It is possible the messages about how they were expected to demonstrate their investment and self-driven learning were not consistent or frequent enough to be rated by students as something that was expected of them 'often' or 'almost always'.

A second possible explanation relates to the experience levels of the two teachers. Given Kylie's inexperience (second year of teaching when the survey was administered), she may still be developing her approach to engagement and therefore may be more reactive and affected by

the students within her class than someone like Diana who has over 20 years of experience and a well-established and conscious approach to student engagement. In discussions with the researcher leading up to the survey, Kylie noted that the new class was very different from the class she had the previous year (when the observations were done) and that she was struggling with some students who were presenting with disengaged behaviours. As no observations were undertaken with this new group of students, it is unclear whether the results of the survey reflect the differences in these students, or whether there was some change to Kylie's teaching that occurred as a result of the change in students and this was then reflected in the survey results.

The results in relation to the Involvement sub-scale are also interesting as they suggest a clear difference between Kylie and Robert's students and Diana and Christine's students that was not expected based on the observation data. Exploring the items in more detail suggests there are two aspects to being 'Involved'. The first is attempting to help peers during lessons (two items), and the second is interacting with the teacher by asking questions and responding to teacher questions (four items). In relation to the first aspect, it is impossible to determine whether the survey responses represent differences in the students' level of social connection with their peers and a culture that encourages peer support, or whether higher reported levels of peer support are a response to some contextual differences. That is, are the students in Kylie's class and Robert's class simply more supportive than those in Diana's class or Christine's class, or is there a greater need for students to support each other in Kylie's class and Robert's class? The high level of peer-peer interactions observed in Diana's lessons and the emphasis on establishing a positive and supportive environment in Christine's lessons provide no evidence to suggest the students are less supportive of each other, however more evidence is needed to be able to interpret these findings with any real confidence.

The second aspect of involvement relates to the student's interactions with the teacher. For example, two items refer to asking the teacher questions and answering teacher questions. It is not specified whether this refers to questions about a task (what to do or how to do it) or whether it refers to questions about a concept or skill that is being learned. The first focuses on successful task completion and most closely aligns with the *Participating* form of engagement in the typology. It might be reasonable to expect that when tasks are well explained and targeted to the students' level of development, there would be fewer questions of this nature than when task instructions are unclear, or the task is pitched at a level beyond the student's current level of ability. The second type of question stems from curiosity or a desire to learn and improve, aligning better with the *Investing* form of engagement. This type of question might relate more closely with an item from the Engagement Expectations subscale, *My teacher encourages us to ask questions about what we are learning*, although clearly this is about what is expected rather than what the student reports doing themselves. Looking at a comparison of the responses to these two questions (*I ask the teacher questions* and *My teacher encourages us to ask questions about what we are learning*) reveals a clear difference between the way that Diana and Christine's students answered and the way that Robert and Kylie's students responded (see Figure 15).

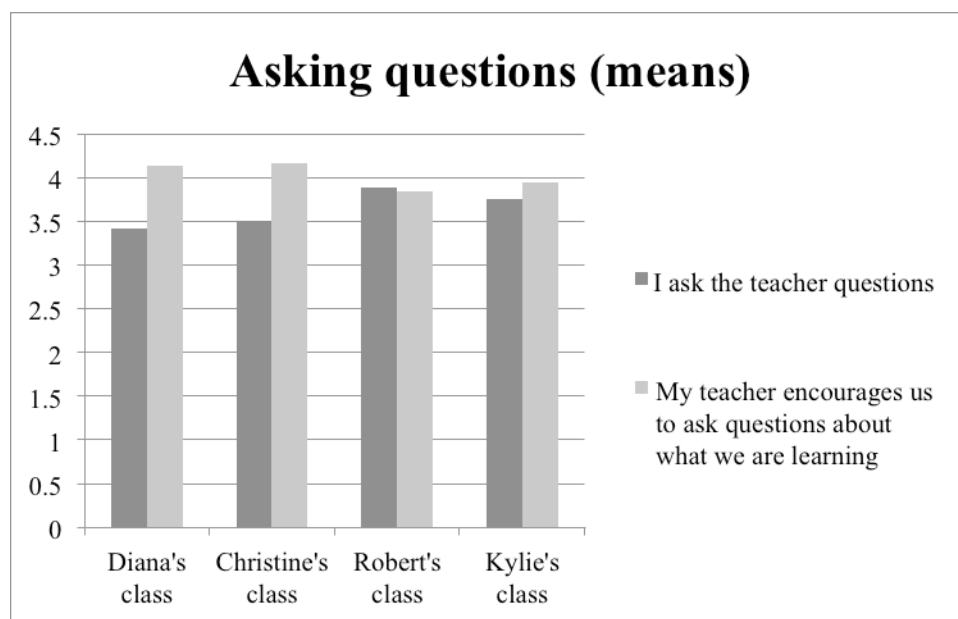


Figure 15. Comparing responses to items relating to asking questions.

Students in Diana and Christine's classes reported higher expectations for asking questions about what is being learned but lower levels of asking the teacher questions. In contrast, there is little difference in the responses to these two questions for Robert and Kylie's classes. It is possible the students in Diana's and Christine's classes are reporting a mismatch between what the teacher expects and what they are doing (with the other two classes being more aligned), or perhaps the students are making a distinction between asking the teacher questions in general (e.g., about task instructions) and asking questions to further learning, which may or may not involve asking the teacher. Either way, it is impossible to know with any certainty what is behind these differences. In future, items might be added that would explore this distinction between the types of questions that are being asked (and answered) in the classroom and who is doing the asking and answering.

The responses relating to the Engagement Expectations items offer evidence that students can perceive different expectations in different classrooms in relation to how they should engage

in classroom learning experiences, however more work is needed to better understand student behaviour in response to these expectations and any relationship this might have with student achievement outcomes. There were several items in the survey that captured student-reported behaviours that align with the Participating form of engagement, and three items that aligned with the Investing form. However, there were no items that captured student-reported behaviours consistent with the Driving form of engagement described by teachers. So although we are able to see that Diana's students perceived an expectation that they would be demonstrating some attempts to drive their own learning (e.g., goal setting) we cannot tell from this survey if they were in fact engaged in those behaviours. Certainly there was evidence of this in the lesson observations but additional items would need to be added to the survey to capture their self-reported Driving behaviours. In future, additional items will need to be developed to better capture the breadth of behaviours related to student engagement in classroom learning as conceptualised by teachers. The typology developed and used in this study might offer a basis from which to develop these items.

General discussion

This study explored the way that student engagement is conceptualised by teachers and operationalised within the classroom through their interactions with students during learning experiences. The qualitative data collected in the interviews provides further support for the typology of engagement as described by teachers. These qualitatively distinct forms of engagement offer an insight into how the concept of engagement is understood by teachers in the context of classroom learning experiences, a perspective that has been under explored in the engagement literature (Harris, 2011). Understanding how teachers put the concept into practice

in their daily interactions with students is essential if we are to provide them with evidence-based recommendations that are both relevant and useful to them in the classroom. There are many recommendations for promoting student engagement in the literature; however, it is questionable whether efforts to translate research findings into practice have been successful. Some have gone so far as to claim that, "much of the knowledge amassed has little utility value to teachers" (Shernoff et al., 2016, p. 59). It is possible that efforts to translate the findings of engagement research have been hindered by the gap in our understanding of what it means to engage learners in the context of the classroom, leading to calls for more research into the interactions between students and teachers in the "complex social ecology of the school" as a way forward in our efforts to support those hoping to facilitate student engagement (Vollet et al., 2017, p. 649).

The typology used in this study provides an additional perspective from which to build our understanding of student engagement in classroom learning, and a basis from which to investigate the relationship between teacher engagement practices and student outcomes. Using the typology to code teacher engagement-related interactions within lessons helped to uncover their implicit and explicit expectations for student engagement by allowing an examination of their attempts to facilitate the three different forms of engagement in the typology (Participating, Investing, Driving). Student perceptions of their teacher's expectations for engagement were also captured, providing some evidence that the engagement expectations identified through classroom observations were also identified by the students themselves in three of the four classes. The results of the survey also provide evidence that student perceptions of the teacher's engagement expectations are distinct and separate from their perceptions of other elements of the classroom learning environment such as teacher empathy, task orientation, cooperation and involvement. Although there is a long history of research into teacher expectations, to date these

have primarily focused on expectations for student achievement, an *outcome* of classroom learning experiences. This study adds to our understanding of teacher expectations by providing evidence of different expectations that teachers have for student engagement, as part of the *process* of learning within the classroom. Rubie-Davies (2007) identified behaviours of high and low-expectation teachers, providing some indication of the differences in what teachers expect of students and of themselves in relation to the process of learning. The data collected in this study showed that Diana (and to a lesser extent Kylie) exhibited behaviours consistent with those described of the high-expectation teachers, most notably setting learning goals with students, encouraging students to work together, monitoring student progress frequently during lessons and providing frequent feedback to support student learning. This suggests there may be some correlation between having high expectations for student achievement and have high expectations for how students engage in classroom learning experiences in order to reach those goals for achievement. Future investigations might look to test this possible connection by combining the survey items and observation methods developed in this study with existing approaches for studying teacher expectations.

Limitations

A significant limitation of any study with such a small sample size is the inability to generalise any findings. While this study has identified three distinct approaches to engaging students in classroom learning, more work is needed to determine whether other teachers can be categorised in this way or if additional approaches can be identified and described in a similar way. Similarly, results from the student survey cannot be generalised beyond this study and more work is required to understand the relationship between teachers' engagement practices within lessons and their students' perceptions of engaging in classroom learning experiences. As noted

earlier, the items in the questionnaire did not allow the students' self-reported engagement behaviours at the Driving level of engagement to be captured. To gain a more accurate understanding of the correlation between perceived teacher expectations and self-reported student engagement in the classroom, more items would need to be developed to capture behaviours such as goal setting and identifying areas for improvement. In relation to the new items developed to measure expectations for engagement, the focus was only on the three forms of engagement described in the typology (Participating, Investing, Driving) and did not include any items relating to the three forms of disengagement described by teachers (Withdrawing, Avoiding, Disrupting). This may be a limitation given teachers will undoubtedly have expectations about what constitutes disengagement within a lesson. In future work it would be worth constructing items that measured teacher expectations in relation to disengagement in order to expand our understanding of teacher expectations for engagement.

Another limitation relates directly to the timing of the survey in relation to the observations, particularly in the case of Kylie. It is impossible to determine from this data whether the results of the student survey may have been different if the students from her previous class had completed the survey rather than those from her new class where there were reported problems with student engagement.

Conclusion

Improving student engagement remains at the forefront of many educational initiatives and the concept continues to hold the attention of both researchers and practitioners alike. It is widely agreed that teachers have an important role to play in facilitating student engagement in classroom learning, but despite considerable research attention it remains worth questioning whether conceptions of engagement found in the research literature accurately represent the way

teachers think about the concept. Arguably, any attempt to support teachers' attempts to facilitate student engagement in the classroom would benefit from understanding not only *what* teachers are doing but *why*. At the least, the findings from this study suggest that teachers have different ideas about what it means to be engaged in learning, what is expected of learners and how engagement is facilitated in lessons. These expectations are communicated to students within lessons through the interactions between teachers and students, with students receiving different messages about what it means to be 'engaged in learning' depending on the classroom they are in. Looking forward, it might be possible to support teachers to move beyond a narrow conception of engagement as passive, compliant participation and raise their expectations to include more active, agentic learning behaviours. Similar work has been done in relation to autonomy-supportive practices (Reeve, 1998) and teacher expectations for achievement (Rubie-Davies et al., 2015) and might also be undertaken in relation to their expectations for engagement.

Chapter 7: Discussion and Conclusion

Revisiting the aims of the research

This research aimed to explore the perspective of the classroom teacher to provide an alternative view of student engagement in classroom learning experiences. Despite the fact that teachers have been acknowledged as important influencers of student engagement (Earl et al., 2017; Klem & Connell, 2004; Linnenbrink-Garcia et al., 2011; National Research Council and the Institute of Medicine, 2004; Shumow et al., 2013; Skinner & Belmont, 1993), the classroom teacher has remained a somewhat peripheral figure in the engagement research. Their assistance has been sought in regards to rating students' engagement, and their practices have been examined to some extent through the lens of motivation constructs such as autonomy support and relatedness. What has not been sufficiently examined is their perspective on engaging students within daily learning experiences in the classroom. Currently, the task of facilitating the engagement of students in learning at school is seen in the profession as part of the role of the classroom teacher. The Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2017) references student engagement 17 times across all levels of teacher development, signifying this is an expected part of being a teacher in today's classrooms. Internationally, Kennedy (2016) identified student engagement as one of five persistent problems of practice that drives teacher behaviour. Engagement research reaches across geographical and cultural lines, suggesting that the quest to improve students' involvement in school (including but not limited to their involvement in learning) continues for educationalists across the world.

Rather than providing a competing alternative to the accepted conceptions of student engagement and approaches to researching engagement, it is hoped that this research will add a

different vantage point from which to examine the concept of engagement. In order to present the perspective of the classroom teacher, the research took a theory building approach that began with inductive, qualitative methods and then moved to a more deductive, theory-testing phase. This chapter will begin with a summary of the key findings from the two studies and then propose a model for the pedagogy of student engagement, followed by a discussion of the implications and limitations of this research project.

Summary of findings

The research was guided by two broad research questions, and these provide a useful structure for summarising the key findings. The first research question asked how teachers conceptualise student engagement in learning, and the second asked how the concept of student engagement is operationalised within individual classrooms.

Conceptualising student engagement

The way that teachers conceptualise student engagement is the result of many things. First, and perhaps the strongest influence on teachers' understanding of the concept is their prior experiences in the classroom. This may relate to both their experiences as students, and also to their experiences as teachers attempting to engage their students within lessons. Many of the teachers' descriptions of the concept of engagement involved recounting specific episodes in the classroom as a way of either illustrating what they were trying to convey or as a way of thinking through and reflecting on what they knew of engagement. The key findings to come out of the two studies are that (1) teachers have a range of meanings behind the broad terms of engagement and disengagement, (2) teachers described both active and passive forms of engagement and disengagement, and (3) teachers describe engagement as both fluctuating within and across lessons, but also generally stable for some students.

Based on the responses of teachers, a typology of engagement is offered as a representation of these different forms of engagement and disengagement (Figure 16). The decision to place the different forms on a single continuum was made based on descriptions of student behaviour as fluctuating between disengagement and engagement, and the fact that teachers often described each concept in terms of the absence of the other. That is, disengagement was described in terms

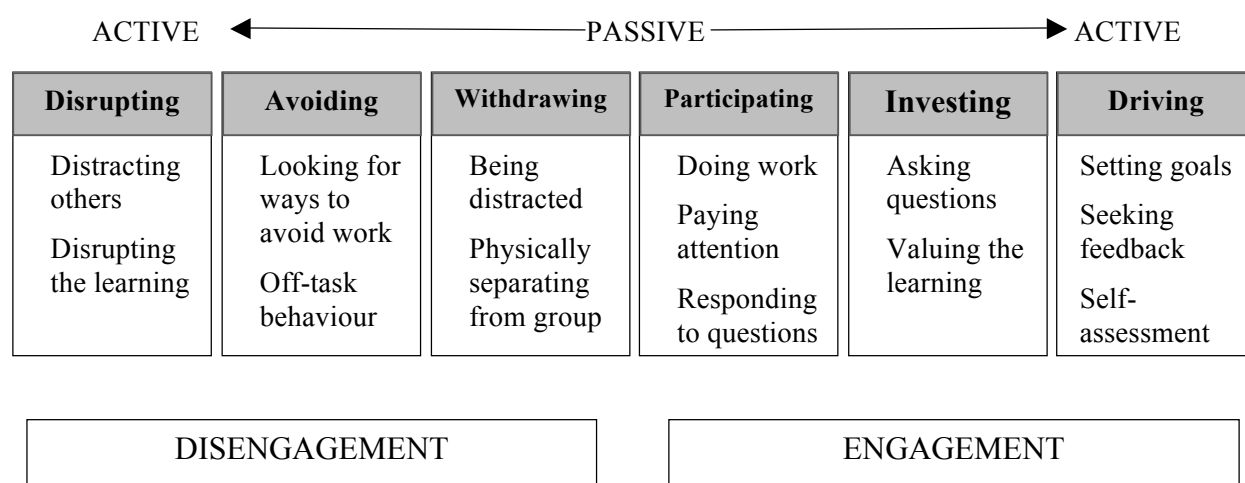


Figure 16. The Student Engagement in Learning (SEL) typology. A typology representing teachers' descriptions of student engagement in classroom learning experiences.

of the lack of engagement related behaviours (e.g., getting work done), and engagement was described in terms of the lack of disengaged behaviours (e.g., being disruptive). This typology provided a useful tool for examining teacher expectations for engagement, as well as their engagement-related practices within the classroom, and therefore links with the second research question discussed below.

Importantly, not all teachers described all forms of engagement and disengagement, and some only described the most active forms of engagement when prompted to describe a time

when students were 'highly engaged' in a classroom learning experience. A potential explanation may be that this form of engagement might fall inside the bounds of what the teachers know to be possible (because they have experienced it), but outside the bounds of what they have come to expect in their daily lessons. If this is the case, this may add support for Kennedy's (2016) claim that the task of ensuring all students are highly engaged at all times might be seen as too difficult by the teacher, leading the teacher to settle for a more achievable goal of compliant participation in classroom events. That some teachers were able to describe behaviours representative of the *Driving* form of engagement, but only when prompted for a specific instance of high engagement, suggests that it may be important in future research to distinguish between a teacher's *experiences* of student engagement and their *expectations* for engagement within lessons. As was seen in Study 2, both Christine and Robert were able to describe the *Driving* form in their interview, but rarely intervened within the observed lessons to promote this form of engagement and gave no indication that this was expected of students.

Teachers' conceptions of student engagement were heavily weighted towards observable behaviours, as has been reported in other studies (Harris, 2011). This is not surprising as looking for observable behavioural cues to assess whether students are doing as the teacher has asked is a normal part of everyday teaching. Effectively managing classroom-learning experiences requires teachers to be able to quickly and efficiently monitor all students throughout the lesson and intervene promptly to avoid disruptions to the learning environment. Teachers' descriptions of student engagement were also more holistic than commonly presented in the research literature, and although they describe different forms of engagement, these relate more to the level of active involvement of the student rather than to separate dimensions such as behaviour, emotion or cognition. For teachers, student engagement is a real-world experience with a practical purpose

rather than a theoretical consideration with a research purpose. It would not make sense for teachers to separate out the different dimensions in their work because that is not how they experience student engagement when in the classroom. What they are describing is what it looks like when students are participating in the learning experience, or when they have become invested in what they are learning, or when they are actively striving to learn and improve. It would not serve the teacher's purpose to describe what students are thinking and feeling as these things are not readily observable and monitored.

Having said that, it is possible to map different aspects of the typology of engagement to the dimensions described in the literature. For example, descriptions of *Participating* have a strong connection to the behavioural dimension described by Fredricks et al. (2004). However, it is less clear-cut in the other forms of engagement. *Investing* has elements of emotional engagement (e.g., being excited), cognitive engagement (e.g., asking questions to learn more), and behavioural engagement (e.g., being focused). Likewise, *Driving* has elements of cognitive engagement (e.g., striving to improve), emotional engagement (e.g., being highly invested), and behavioural engagement (e.g., putting effort into tasks). In addition to being more holistic than the existing multi-dimensional frameworks, the implicit assumption is that the forms of engagement are hierarchical, with the understanding that students who are exhibiting signs of *Driving* are also *Investing* and *Participating* in the learning experience.

Less has been written about different forms of disengagement, and predominantly the term incorporates a wide range of behaviours. This research has identified and described three forms of disengagement and it was apparent that teachers made distinctions between these forms rather than treating them the same. As with the forms of engagement, teachers described both passive and active forms of disengagement, similar to those described by Earl et al. (2017). In

addition, they also described a form of disengagement that related to students actively avoiding the learning experience.

Operationalising student engagement in classroom learning experiences

As mentioned earlier, not all teachers described all six forms of disengagement and engagement in the typology and some only spoke about the more active forms of engagement (*Driving* and *Investing*) when prompted by the researcher. This suggests that the forms of engagement a teacher has experienced or described may not align with their expectations for how students will engage in lessons or their attempts to promote engagement within lessons. Evidence of this is seen in the way that some teachers spoke of their experiences of highly engaged students. For many teachers, these experiences were recounted with a sense of amazement, curiosity or wonder that was different when describing the more frequently described indicators of engagement (e.g., making eye contact, participating in discussions, being on task, etc.). At times teachers used words to indicate that this was out of the ordinary and unplanned, as when Mark remarked, 'there was a level of engagement we hadn't expected'. Even Diana, who had the highest expectations for student engagement, recounted an experience where student engagement had exceeded her expectations:

it took on a life of its own...and the next minute we had 15 minutes left until the bell, and that was a 2 hour block. Every time I'd look around, it didn't matter if I was working with one group, as soon as I'd turn around they were all either talking or writing or annotating on the sheet or doing something and then putting their hands up and saying "Oh but what about..." That to me was engagement, unplanned engagement but engagement. So I wonder whether or not, as much as you can plan for it....you can plan for it but then

there's that other side where it just depends on the kids, on the lesson, on the day, on whatever it might be.

Many teachers recounted experiences of engagement going beyond expected levels of engagement, indicating that their expectations for how engaged students will be in a lesson might not equate to what they know to be possible in terms of engagement. Two things can be said about this. First, thinking about the process of learning, it is quite reasonable to expect that different forms of engagement might be appropriate at different points of learning. For example, it might be most appropriate for students to be listening and observing as the teacher explains a new concept and less appropriate or effective for them to be setting goals or collaborating with their peers at this point. Given this, we would anticipate that effective teachers would be able to determine the most appropriate and effective form of engagement to best facilitate the identified learning goals for the lesson, and this might change from lesson to lesson and within lessons, depending on the learning context (Hattie, 2009; Lee & Anderson, 2013)

While teachers described student engagement as fluctuating from lesson to lesson, or within a lesson, it was not clear whether this was merely an observation on their part or whether the teachers themselves had fluctuating expectations for engagement within and across lessons, or both. Certainly in the lessons observed in Study 2, it was typical to see points of the lesson where student engagement was constrained to more passive forms of *Participating* by the nature of the activity. For example, whole group instruction periods where the teacher asked students to look and listen, along with other times when higher levels of student activity were encouraged, such as peer discussions. The findings from Study 2 suggest that some teachers, like Diana, have a wider range of engagement-related behaviours they expect to see across lessons, and others,

such as Robert, have more limited expectations in relation to student engagement. The implications of this will be discussed in more detail later.

The second point to make about the differences between what teachers know to be possible in terms of engagement and what they expect in a lesson in relation to student engagement relates to teachers' awareness of their expectations for how students will engage in learning within lessons. It is unclear from this research what role, if any, teachers' expectations for student engagement play in their thinking and planning for learning experiences. Clearly teachers have conscious expectations for what students will *do* during a lesson and what the teacher hopes to see in terms of student behaviour and output within the lesson, this is a normal part of lesson planning and classroom management. What is less clear is to what extent teachers think about how students will *learn* within the lesson or what learning will look like during the lesson. Teacher responses in Study 1 revealed many struggle to describe what learning is or how it is related to student engagement. A common expressed belief was that learning is an inevitable by-product of *doing*, with the implicit understanding that keeping students *doing things* would ensure they were learning. Along these lines, teacher descriptions of the importance of 'hooking students in' and 'getting students engaged' at the beginning of a lesson or series of lesson can be seen as an attempt to entice them into doing the work that would follow. Further research might explore teacher thinking during planning to better understand how, or if, they connect the type of engagement they are expecting with the anticipated learning goals. That is, does the teacher link their expectations for how students will engage (e.g., listening, sharing ideas, answering questions) with their goals for learning (e.g., understanding a new strategy, connecting two concepts, recalling a set of facts), or are their expectations simply representative of their general approach to teaching.

To explore how the concept of engagement is implemented in classrooms, two approaches were used: asking teachers about their engagement practices and observing those practices within lessons. First, teachers were asked to describe their role as engagers of students and how they went about this task in the classroom. This self-report of engagement practices suggested a complex process of getting students engaged and keeping them engaged through constant monitoring, diagnosing and intervening within lessons, as represented in the pedagogical framework for engagement (Figure 17).

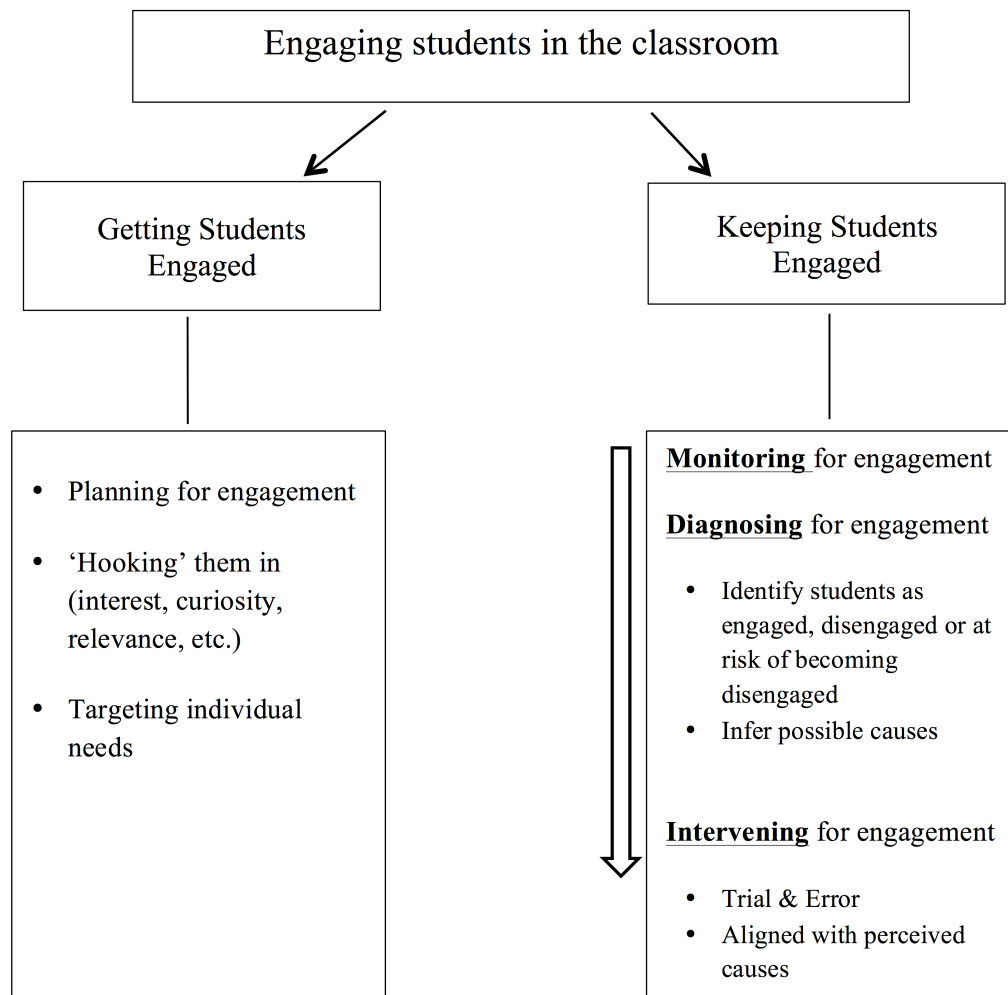


Figure 17. Pedagogical framework for engaging students in classroom learning experiences.

A theoretical link between diagnosing and intervening for engagement has been proposed by researchers (Furlong & Christenson, 2008; Lee & Reeve, 2012), and similarly for motivation (Furrer et al., 2014; Hardré & Hennessey, 2013). Theoretically, it is presumed that teachers *intervene* with strategies they hope will facilitate greater engagement when they *diagnose* a lack of engagement or potential threat to engagement within lessons. What is missing in the literature is clarity about the diagnostic process and empirical evidence to support the link between diagnosing an engagement need and intervening with an engagement strategy. This research provides detailed evidence of the indicators that teachers use to support their diagnosis of engagement within lessons, including some evidence of the thinking that certain teachers undertake to attribute causal factors to those indicators. All teachers were able to easily describe what disengaged students looked like and sounded like, in other words they described the behavioural indicators they used to diagnose disengagement. However, only a few teachers spoke in detail about the importance of identifying the causes behind those behaviours as an essential step in diagnosis and intervention. Such a targeted approach to engagement interventions rests on two assumptions. First, that disengagement can stem from a number of causes, such as lack of interest, low confidence, lack of perceived value, and being distracted by other concerns. The second assumption is that each identified cause may require a different engagement strategy. Unfortunately, the literature tends to favour a broad view of disengagement that does not distinguish between being disengaged in school and being disengaged in a particular learning experience, and generally fails to distinguish different forms of disengagement (but see Earl et al., 2017). With such a disconnect between teachers' experiences of disengagement and researcher perspectives on the concept, it is difficult to see that the

literature in its current form will be of much practical use to the classroom teacher hoping to address disengagement that arises within lessons. It is important to acknowledge that not all teachers spoke about the importance of identifying and targeting causal factors of disengagement. Others appeared to take a more broad view of disengagement, similar to that presented in the literature, and described an approach to intervening that was more akin to trial and error, as was reported by Hardré and Sullivan (2008) in relation to student motivation. While it might be reasonable to assume that a more targeted approach to intervention would be more effective in solving disengagement problems, as yet we do not have sufficient evidence to support this assumption.

The interviews provided an insight into the self-reported practices that teachers undertake to facilitate engagement. These included planning considerations such as student interests, universal strategies like relationship building, and targeted interventions for specific students and specific engagement needs. The findings suggest a complex, multifaceted process that aligns with the research literature in some areas, and extends it in others. For example, the engagement literature strongly advocates establishing strong and positive relationships with students, as this is associated with feelings of trust, perceived support and engagement (Conner & Pope, 2013; Furrer & Skinner, 2003; Roorda et al., 2011; Ryan & Patrick, 2001; Skinner & Belmont, 1993). The teachers in this research also described the importance of positive student-teacher relationships, particularly when building student confidence, willingness to participate in learning experiences, and positive emotions in the classroom. This research went further to identify an additional reason why investing in relationships might be a good practice. Some teachers used relationships to help them monitor, diagnose and intervene effectively for student engagement. Developing relationships with individual students provided the teachers with

knowledge about the student (e.g., approach to learning, personal characteristics, social relationships, family background, academic progress) and the teacher used this knowledge to interpret the student's behaviour and plan for their learning. In this case, relationships supported pedagogical decision-making in relation to engagement. This builds on our understanding of the relationship between teacher-student relationships and engagement, and also provides a clearer link between the diagnostic and intervention elements of the engagement process than is presented in the literature.

Building on the teacher's descriptions of their engagement practices, the observation study hoped to examine their attempts to intervene for engagement within lessons and provide further evidence of the pedagogical process of engaging students. The findings from Study 2 provide an insight into teachers' implicit and explicit expectations for student engagement as indicated by the engagement forms they intervened for and attempted to promote within lessons. The complexity of this process cannot be underestimated and the challenge of capturing the thinking and reasoning that underpins each observable attempt to facilitate engagement is undeniable. However, it is imperative that this process is understood so as to identify points for professional development that might result in more effective teaching practice, more engaged students, and better learning outcomes for those students. The findings from the observation study indicated clear differences between the teachers in the forms of engagement they emphasised in lessons, variations in the frequency with which they intervened and also the range strategies they used to promote each form of engagement. As such, it appears that the concept of student engagement is implemented in different ways in different classrooms. For example, in Robert's classroom being an engaged student is to be on task and getting work done, to be listening, to be answering the teacher's questions and to be following established procedures and

rules. In contrast, Diana's classroom revealed that these things were also important, but more was expected. In her classroom students were also expected to be explaining their thinking, engaging in productive and cognitively challenging peer interactions during the learning experience, questioning, reasoning, persisting, setting goals for their learning, monitoring their progress, and engaging in feedback practices (giving and receiving). In addition, there were differences in the teacher's role as facilitator of engagement across the classrooms. In Robert's classroom, his role was to ensure that students knew what was expected of them in the task and how to complete the task, to monitor and manage behaviour to avoid disruptions to the learning environment, and to provide additional support for students at risk of disengaging from the task. Diana's role comprised these elements, but also included facilitating productive peer interactions, higher order thinking, and communication skills, encouraging self-directed and self-regulated learners, monitoring student progress and stepping in to provide scaffolding in these areas as needed. While it would be easy to attribute these differences to experience, there is little evidence to suggest that teachers significantly change the way they teach simply by spending more time in the job (Hattie, 2003). A more likely explanation lies in the levels of expertise these teachers demonstrate and in their expectations of what students are capable of, which will be addressed in subsequent sections.

Linking beliefs and practice

A common and persisting theme within the teacher beliefs literature is the relationship between belief and practice. The complexity of beliefs, especially when viewed as part of an interconnected system of beliefs rather than specific beliefs held in isolation, makes it challenging to determine exactly which beliefs are most influential on behaviour at any given time. When looking at the relationship between teacher beliefs and their engagement practices, it

is necessary to consider a number of beliefs that might influence teachers' decision-making and actions. First, and most obvious, are the beliefs that teachers hold in relation to student engagement within the classroom. This includes their working definitions for what engagement is (and is not), what it looks like, what it means for them as the teacher and for the students, the nature of engagement in the classroom (e.g., does it fluctuate, is it context dependent, is it fixed or is it malleable). Related to this is their beliefs about teaching (e.g., what role do they play in engagement), their beliefs about learning (e.g., what do effective learners do in the classroom, how does learning happen), their beliefs about student motivation to learn (e.g., what motivates students to want to learn). Other beliefs may also come into play, for example beliefs about specific domains, specific contexts, specific students, specific teaching practices or approaches, the educational system, and the goals of schooling.

In this thesis, the connection between teachers expressed beliefs about engagement and their enacted engagement practices within observed lessons was explored. Despite the small number of teachers, there were identified differences between what some teachers said and what they did, as well as differences between how closely the expressed beliefs matched the enacted practice. For three of the teachers, there was a mismatch between their descriptions of different forms of engagement and their engagement related interventions within lessons. Two of the teachers described the *Driving* form of engagement within the interview but rarely attempted to facilitate that form within their lessons. As previously discussed, this suggests it may be important to distinguish between a teacher's *experiences of* student engagement and their *expectations for* student engagement within lessons. It is also possible that, as Kennedy (2016) suggested, while active engagement might be desirable teachers may opt to settle for passive participation as a more achievable goal in lessons. Another instance of mismatch between

expressed beliefs and observed practice was seen in the most inexperienced teacher, Kylie. She did not describe *Driving* during the interview, but did attempt to facilitate it in each of her lessons. One potential explanation for this lack of congruence between her expressed beliefs about student engagement and her observed engagement practices may be her lack of experience. Research involving pre-service and beginning teachers has identified this as a transitional period where inconsistencies between beliefs and practices are not uncommon (Buehl & Beck, 2015). Similarly, it may be that her awareness of her beliefs is not sufficiently developed for her to be able to communicate them to others.

Only Diana had a close alignment between her expressed beliefs and her enacted practice. Interestingly, both her descriptions of student engagement and her engagement-related practice were complex and multi-faceted, she spoke at length and in great detail about the concept during the interview and displayed a tendency for deep reflection on her practice, easily connecting her experiences within the classroom to her explanations of beliefs about engaging students in learning. As this was the most experienced of the four teachers, it may be that her experience has supported a well-developed personal theory of engaging students, as well as a set of well developed and tested strategies for facilitating engagement in the classroom. However, there is nothing in the research to suggest that teachers with similar levels of experience would exhibit the same level of congruency and complexity in their engagement beliefs and practices (Buehl & Beck, 2015; Hattie, 2003), meaning the difference might be attributed more to expertise than experience.

Buehl and Beck (2015) argued that the focus should not be on whether or not teachers' beliefs are consistent with their practices, but on understanding the variations in the relationship between beliefs and practice and the potential consequences of the different relationships. In

relation to teachers' engagement beliefs and practices, future work might seek to identify the reasons behind incongruence and congruence and explore the potential consequences of incongruence. Such work would support a deeper understanding of how teachers' engagement beliefs and practices develop, change and interact at different times in their career.

Expanding the notion of teacher expectations

As discussed in Chapter 2, there is a long history of research into teacher expectations and their relationship to student outcomes. The work in this area continues to evolve and this thesis has added to our understanding of the complex relationship between teacher expectations and student learning. While early work focused on teacher expectations and interactions with individual students, more recently, Rubie-Davies (Rubie-Davies, 2007) identified class level expectations for student achievement. Her work was seminal for shining a light on the pedagogical beliefs and practices of high-expectation and low-expectation teachers, and the impact that class-level expectations can have on student achievement, students' opportunity to learn, and the socioemotional environment of the classroom (Rubie-Davies, 2007; Rubie-Davies & Peterson, 2010). The research conducted for this thesis identified variations in teachers' expectations for student engagement and connections can be made between these findings and those reported by Rubie-Davies in relation to high and low-expectation teachers.

As discussed in the previous chapter, there are parallels between the practices observed in Diana's (and to a lesser extent Kylie's) classroom and the descriptions of high expectations teachers in Rubie-Davies' work. For example, the use of student set goals for learning, close monitoring of student progress, and the frequent encouragement of peer-peer interactions. Rubie-Davies (2004) also examined the beliefs and self-reported practices of high and low-expectation teachers, reporting that high-expectation teachers spoke more frequently about student

motivation, student interest and student enjoyment of learning, all concepts relating to student engagement. Specifically, high-expectation teachers reported giving students more choices in their learning, placed more emphasis on goal setting as an important motivator, and spoke more frequently about the importance of considering student interests when planning. This suggests that part of being a high-expectations teacher is having high expectations that students will be actively engaged in learning. Inherent in these high expectations is the assumption that students are capable of making choices in their learning, capable of being involved in setting goals for learning, and that their input into the learning experience is valued and valuable.

The purpose here is not to categorise the participating teachers as high or low-expectations teachers, but to draw some connection between teachers' expectations for student engagement and the research into the relationship between teacher expectations and student outcomes. Study 2b was able to explore the connection between teachers' engagement related interactions in the classroom and students' perceptions of the learning environment, finding that students in Diana's class perceived higher expectations on their engagement than the students in the other three classes. However, this does not tell us whether those higher expectations were also linked to higher academic outcomes for Diana's students. If it is true that Diana's high expectations for student engagement signify that she could also be characterised as a high-expectations teacher as described by Rubie-Davies, then this might be a reasonable hypothesis given the evidence connecting teacher expectations and student achievement (Rubie-Davies, Peterson, Sibley, & Rosenthal, 2015; Rubie-Davies et al., 2014; Rubie, 2004). Future work might look to explore the relationship between teacher expectations for student achievement and their expectations for engagement to test whether these two concepts are related as hypothesised here. If such a relationship is found, this would add to our understanding of the beliefs and practices of

high expectation teachers, and might support future efforts to develop high-expectations teachers. Conversely, exploring the connection between teachers' engagement beliefs and practices and their expectations for students provides a new avenue for thinking about the concept of student engagement. To date, the teacher has remained an acknowledged influence on student engagement but a largely silent voice in the engagement literature. Exploring the role of teacher expectations in relation to a range of student outcomes, such as achievement and engagement, might support more attempts to actively invite the teachers' perspective into engagement research, as has been attempted here.

Developing a model: The pedagogy of student engagement

While some connections can be made between the engagement practices and beliefs of the teachers in this study (either self-reported or observed) and the research literature into student engagement, the intent here was not to categorise teacher behaviour and beliefs in light of existing constructs such as autonomy support, motivation or effective teaching, or even the existing engagement framework favoured in the research literature. This research aimed to construct a more holistic representation of teacher engagement related practices that brings together their beliefs, skills and existing knowledge with their descriptions of the process of engaging students to provide an on-the-ground perspective of what it means to engage students in classroom learning experiences, with enough clarity to be useful in both practice and research, but with enough openness to accommodate the breadth and range of experiences and viewpoints of different teachers.

Using Fives and Buehl's (2011) work as a guide for thinking about the connection between teachers' beliefs about engagement and their engagement practices, the notion of beliefs acting as a filter, frame and guide for action underpins the proposed model shown in *Figure 18*.

Specifically, it is proposed that teachers hold a variety of beliefs, skills and understandings that influence the expectations they have for student engagement. These include (but are by no means limited to): beliefs about teaching and learning, beliefs about engagement and motivation, beliefs about their students, knowledge of the curriculum and how to teach it, and pedagogical skills). It is further proposed that it is the teacher's expectations for student engagement that act as a lens for interpreting student behaviour within lessons and making decisions about when and how to intervene in relation to student engagement.

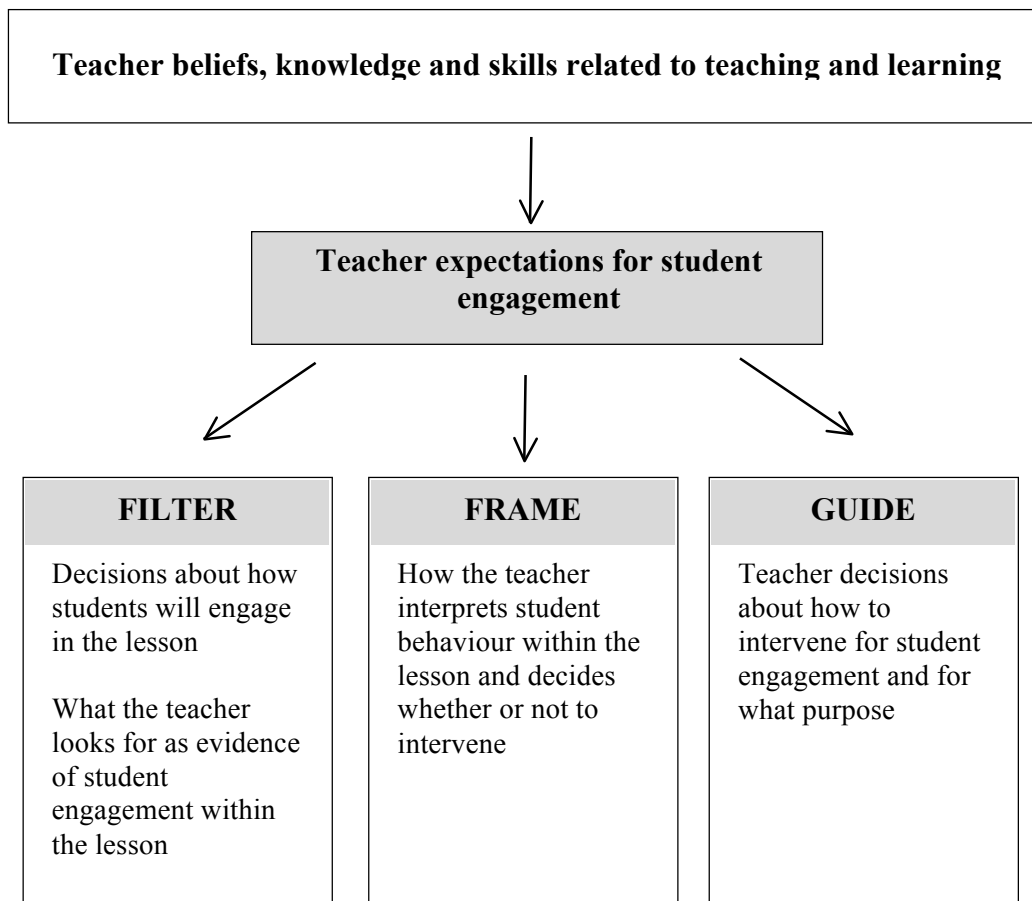


Figure 18. A proposed theoretical framework for the role of teacher expectations for student engagement.

This provides a broad overview of how a teacher's engagement related beliefs, and in particular their expectations for how students will engage in planned learning experiences, influence their engagement related practices. To understand how this relates to the different forms of engagement described in the typology and the pedagogical process for engaging students described by teachers in this research, it is necessary to first look at two distinct facets of engaging students in the classroom.

Engagement as classroom management vs. engagement as facilitating learning

Others have proposed a distinction between *engagement in school* and *engagement in learning* arguing that these may be related but conceptually different phenomena (Harris, 2011; Janosz, 2012; Wylie & Hodgen, 2012), with different determinants and different outcomes (Janosz, 2012). Similarly, Skinner and Pitzer's (2012) nested model of motivational dynamics, distinguishes between *engagement in the classroom* and *engagement with learning activities*. However, it is difficult to determine from their description how the two differ as they jump from describing *engagement with school* to *engagement in academic activities* within the classroom. They define this academic engagement as "constructive, enthusiastic, willing, emotionally positive, and cognitively focused participation with learning activities in school" (p. 22). Mapping this against the two forms of engagement proposed here and the typology of engagement developed in this thesis, this would appear to align with *Participating* and *Investing* in learning experiences but it is difficult to see any links to the *Driving* form described by teachers in this research. From Skinner and Pitzer's definition we see engaged students as happily compliant and productive but whether or not they are learning would depend on the quality of the learning activity, what 'cognitively focused' meant and how both of these were linked to specific gains in individual learning. From a teacher's perspective, it is worth considering how they

would determine if a student was 'cognitively focused' or just compliantly on-task. For this reason, and given the evidence that teachers rely on behavioural indicators to make judgements about student engagement, it is possible that teachers wanting to use this definition as a measure of student engagement might interpret student participation, enthusiasm and productivity as signs the student is engaged in learning. In other words, if the student is happy and participating then they must be learning. While this may be true, without adequate evidence of learning, such an inference is questionable.

The findings presented in this thesis also suggest a distinction between classroom engagement and engagement in learning might be useful, but for different reasons. Rather than distinguishing between different aspects of student engagement within the school environment, the distinction proposed here is between two different facets of teacher engagement practice: *student engagement in the lesson* and *student engagement in learning*. The first is concerned with the need for an orderly, productive classroom where students are focused, busy, attentive and productive. Harris' (2011) reported that some teachers held conceptions of student engagement that emphasised student participation in classroom activities, but suggested only an implicit relationship with student learning. Similarly, teacher engagement practices that focus on classroom management and lesson delivery operate on the assumption that students will learn through participating in the lesson.

In contrast, the second aspect of engaging students positions engagement as part of the process of learning within the classroom. The emphasis in this case is on individual learning, and the connection between engaging and learning is more explicit and intentional.

Teacher expectations for engagement

As discussed previously, the teacher's perspective on engagement encompasses a broad system of interconnected beliefs that relate to engagement in the classroom. From this, the teacher has certain expectations for engagement within the lesson, as illustrated in Figure 19.

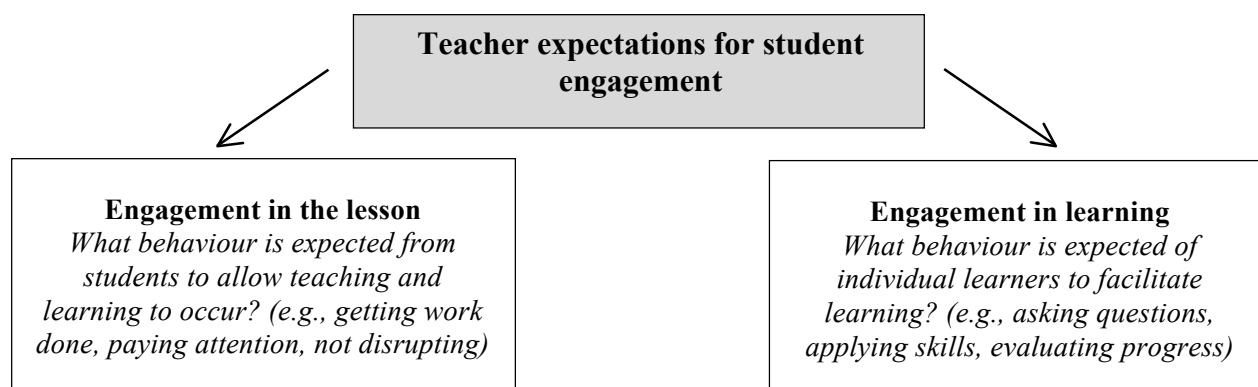


Figure 19. *Teacher expectations for student engagement in the lesson and in learning.*

These expectations may be related to *engagement in the lesson*, or how the students are expected to contribute to the smooth running of the lesson, or to *engagement in learning*, or how the students are expected learn within the lesson.

Expectations for engagement in the lesson. Teacher expectations for how students are to engage in the lesson centre on the behaviours that contribute to a structured and productive lesson, such as how students are expected to interact with others, how students are expected to respond during whole group experiences, and how students are expected to behave while working on learning tasks. These expectations are directly related to classroom management and student compliance, but with no explicit links to learning. All teachers within this research

described clear indicators relating to this facet of engagement, and could communicate clear ideas about how they expected engaged students to behave during lessons.

their body language is usually the big giveaway as to whether they're engaged or not...I can tell straightaway that you're getting ready to talk to your friend because you've leant back on your arm and you've moved in, you've assumed the position... we talk about body language, like when you face me you need to face me with your shoulders as well and give me your whole person, not just your eyes. I would say the body language really shows whether they're engaged or not. (Dee)

it's group work, it's each person taking a turn. We've worked a lot on group work but we've worked on each person having a certain role in that group. So, we have a leader, we have a writer, we have a speaker we have – I like that they're very engaged when it's about turn-taking. (Jeanette)

That they're on task is the biggest thing. That they're on task, that shows me that they're engaged. (Ana)

Expectations for *student engagement in the lesson* generally emphasise the *Participating* form of engagement in the typology, focusing on behaviours such as paying attention, getting work done, and following instructions. This is similar to Harris' (2011) *Behaving* conception of engagement.

Some teachers also had expectations that students should not just comply but also have positive emotions about being involved in the lesson (and in school generally), aligning with the *Investing* form of engagement and similar to Harris' (2011) *Enjoying* conception.

if I've created a good space or a good question or a good activity, then most kids will - will be engaged and be excited to do it (Emily)

they're taking pride in their work, pride in their standard of what they're doing (Kellie)

"Have some fun with that!" (Christine, Observation 2, as she sends the students to their desk to work)

Additionally, for some teachers like Diana, students were often expected to interact with each other within the lesson and this was something she looked for as evidence of engagement in the lesson.

I think questioning's a big thing, if I hear kids questioning each other and you know debating issues and sharing opinions and that sort of thing, I find that's a level of engagement because it's not just a passive listening to somebody and then I share what I think, it's actually that adding on and the challenge

However, others like Tina viewed peer interactions as a threat to student engagement in her lessons rather than a sign of engagement.

I say to them, "You know that you really struggle to work with your friends," I said, "But you are so engaged and so focused, and you write three pages when you're on your own." Others provided no indication that peer interactions were something they expected to see within lesson as evidence of engagement.

Despite some differences in relation to peer interactions and positive emotions, there was a common consensus among all 19 teachers that students who are engaged will be observably on task, productive, focused and paying attention. These behaviours are consistent with *Participating* in the typology. Some teachers also made an explicit reference to a lack of disruptive behaviour when students are engaged in the lesson.

Expectations for engagement in learning. Added to the above expectations are expectations related to how students will demonstrate an *engagement in learning*, such as how

students are expected to develop their understanding, how students are expected to make connections between concepts, how students are expected to apply prior knowledge to a new situation, and how students are expected to assess their own learning.

they're motivated and excited and passionate to achieve goals...if a student is engaged, they're active in their learning, they're not just, yeah they're not passive, they're not listening and going through the motions...student engagement is really a student wanting to better themselves and their skills and achieve (Kellie)

So it's not a matter that I can actually teach them to be a better collaborator, I have to work out the activities that will allow them to collaborate and to actually analyse their collaboration skills and say 'so what's something next time that you can do?' (Diana)

These expectations may include aspects of all three forms of engagement in the typology (*Participating, Investing, Driving*). For example, students may be expected listen and pay attention when the teacher is demonstrating a new strategy (*Participating*), ask questions to support their understanding of a concept (*Investing*), or assess their own work to identify areas for improvement (*Driving*). Unlike the expectations for *engagement in the lesson*, inherent in teachers' expectations for *engagement in learning* is an explicit connection with learning, improvement and growth. Therefore, even though there may be some overlap in the indicators of *engagement in the lesson* and *engagement in learning* (e.g., paying attention), the difference is whether the teacher is connecting attention to classroom management (and their needs as a teacher) or to learning (and the needs of the individual learner), or both.

As discussed in Chapter 5, many teachers made a distinction between *getting students engaged* and *keeping students engaged*, as two separate aspects of engaging students in the

classroom. The discussion will now explore how a teacher's expectations for engagement might influence these aspects of their engagement practice.

Getting students engaged

Many teachers spoke about the importance of getting students engaged either at the start of a lesson or at the beginning of a series of lessons. The practice had a primary function of promoting students' willingness to engage, but also a secondary function of making sure they were ready and able to engage. Although the strategies might be general enough to support teacher expectations for both engagement in learning and engagement in the lesson, they may serve quite different purposes as shown in Figure 20.

Getting students engaged	
• Appealing to student interests • Sparking curiosity • Establish relevance and value for the learning	• Promoting confidence • Making sure students know what to do and how to do it • Relating to prior knowledge and understanding
Getting students engaged in the lesson Purpose: • Promote willingness to participate in the lesson • Discourage disruptive behaviour	Getting students engaged in learning Purpose: • Promote willingness to engage in challenging tasks • Promote a desire to learn

Figure 20. Getting students engaged in the lesson and in learning.

When viewed from the perspective of student engagement in the lesson, getting students interested, curious, excited, confident and aware of how the lesson will relate to them serves the purpose of encouraging students to be willing participants in the lesson. As such, they are less likely to disengage, and providing them with clear instructions further discourages disruptions to

the lesson from students who do not know what to do or how to do it. From this perspective, student interest, excitement and curiosity operate as a lever to get them to willingly follow the teacher's plan.

I think when you've got them, you know you've got them. It's unquestionable. You just don't have behavioural issues when you've got them. (Tracey)

you can see the eye contact straight away. The ones that are giving you eye contact, they're on board with what you're doing (Nicole)

Attempts to get students *engaged in learning* aim to spark curiosity, interest and a desire to learn, with the hope that students will then be willing to engage in challenging tasks and pursue goals that will facilitate learning. Without a doubt, the teacher, the curriculum and the context dictate some boundaries as to what students will have the opportunity to learn, but students are acknowledged as having an active role to play in their own learning, beginning with having a desire to learn more.

students who ask a lot of questions, who are keen, who are curious, who want to know more (Christine)

I suppose it is more of the activation because you have the introduction at the beginning of the unit. Like we just spent all day doing an introduction to these five kind of areas of sustainability and then that's us activating the you know, interests and switching on some light bulbs and getting them interested and choosing something (Kellie)

The expectations that teachers have for student engagement in the lesson and in learning will influence the plans they make for lessons and the opportunities for engagement within those lessons. Some may emphasis passive student participation in teacher-directed experiences, and

others may expect more active involvement from students. Either way, once students have demonstrated a willingness to meet the teacher's expectations for engagement, the teacher must now keep them engaged throughout the lesson.

Keeping students engaged

Chapter 5 described the task of keeping students engaged as a process involving monitoring, diagnosing and intervening in relation to student engagement. As above, these general teaching practices can apply to either keeping students engaged in the lesson or in learning but play out in different ways, as shown in Figure 21.

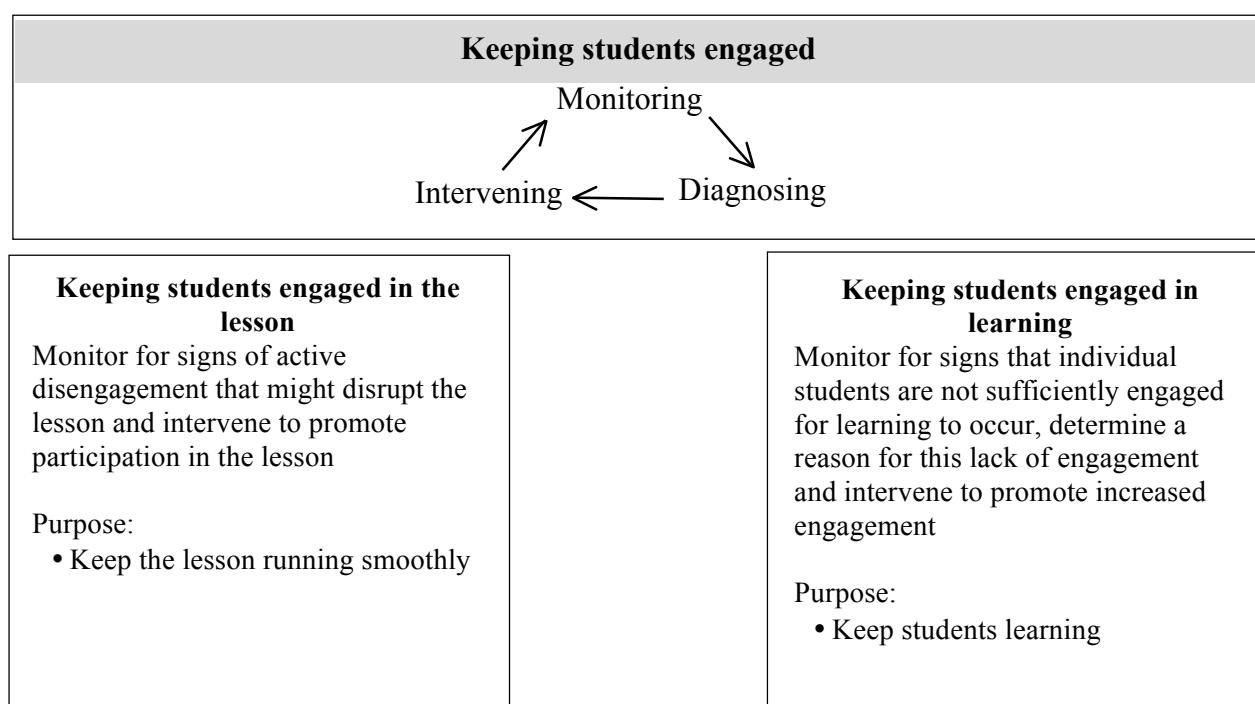


Figure 21. Keeping students engaged in the lesson and in learning.

When attempting to keep students engaged in the lesson, the purpose is to keep the lesson running smoothly and as planned. As such, expectations generally focus on *Participating* and the teacher is therefore looking for evidence of behaviours such as paying attention and being on

task. As the teacher wants to avoid disruptions to the lesson, they must monitor the classroom to look for signs of active disengagement, such as students being too noisy, arguing or trying to distract other students. Attempts to intervene focus on responding to disruptions (or potential disruptive behaviour) and promoting participation.

When attempting to keep students engaged in learning, the purpose is to keep individual students learning and therefore the focus shifts to looking for signs that individual students are not sufficiently engaged for learning to occur. As the expectations for engagement can include *Participating*, *Investing* and *Driving* behaviours, determining what is sufficient will be depend on the expectations for that student in that lesson. An example of this was seen in Eliza's interview when she recounted her frustration and unwillingness to accept passive behaviours from one student ("just tell me what to do and I'll do it") when she was expecting to see more active behaviours that included the student making a choice about what he wanted to focus on and identifying what he needed to do. While not all teachers reported doing so, some were adamant that identifying a likely cause for the students lack of engagement was key to knowing how best to respond. Once the teacher has diagnosed a need to intervene, the focus is on increasing that student's engagement so that learning is more likely to happen. From this perspective, all students may require interventions from time to time to extend their engagement and not just those students who are likely to disrupt the environment. The goal of such interventions is not compliant participation in classroom events but greater engagement in the learning experience.

This is not to say that a teacher should adopt one or the other perspective, but that they may think about engagement from both perspectives. Teachers need to have a smooth running classroom, and productivity, and a positive socio-emotional climate, which requires students to

adhere to certain rules and norms for the classroom. While this may be necessary for effective learning environments, it may not be sufficient for individual learning to occur. Unfortunately, students who demonstrate compliant engagement in lessons but low levels of cognitive effort may go unnoticed even though their learning may be at risk (Wang & Peck, 2013). Therefore, it is also necessary to identify what individual learners are ready to learn and how they might engage in practices that will facilitate that learning.

There was evidence in both the interviews and the observations of strategies that teachers used to monitor student engagement, including: scanning the room, asking questions, and checking in with individual students or groups of students. While the notion of monitoring is mentioned by a few researchers, this remains mostly theoretical and has not been explored in any detail in the literature. More work might explore the monitoring process and identify the types of strategies that teachers use to monitor engagement, particularly engagement in learning.

Closely connected to the process of monitoring engagement is diagnosis for engagement. While monitoring involves a filtering of information based on certain criteria (i.e., expectations), diagnosing involves the framing or interpreting of that information to make decision about the student's engagement. At a surface level this involves a binary decision of engaged vs. disengaged. At a deeper level, a more detailed and nuanced decision is made that may also take into account causal attributions. Other research has reported teachers to be competent and accurate in their estimations of behavioural, and to a lesser extent cognitive engagement, but less accurate in their estimation of emotional or psychological engagement (Lee & Reeve, 2012; Skinner & Belmont, 1993; Skinner et al., 2009). Given the emphasis that teachers placed on behavioural indicators of engagement in this research project, it is reasonable to assume that they are generally accurate in their assessment of the engagement forms identified in the typology,

particularly the *Participating* form as this is linked most closely with general classroom management and indicators associated with behavioural engagement. The issue remains whether the inferences that they make from this behavioural evidence accurately represent the student's lived experience, or if this is even the intent.

The final aspect of the pedagogical process of engaging is intervening. Decisions about *when* to intervene appear to be closely tied to whether the student is meeting the expectations the teacher has for engagement. Decisions about *how* to intervene may be more complex as they can be influenced by the teacher's prior knowledge of the student, their prior experiences with engaging students, their existing skills in relation to engagement and teaching, and the diagnosis that has been made. The findings presented here suggest that some teachers rely heavily on their relationships with students and their knowledge of the student to guide their decisions about when and how to intervene to support the student's engagement. The importance of relationships for pedagogical decision-making was discussed in the previous chapter. It is also clear from the observations that teachers have certain strategies they frequently use to promote engagement in various forms, such as questioning, and that some teachers used those strategies more frequently than others. It is also clear that some teachers have a bigger bank of strategies at their disposal when deciding how to intervene. For example, Diana had multiple strategies for encouraging students to share their ideas and thinking, whereas Robert relied solely on teacher questioning.

The data collected in this research suggest that all teachers had explicit expectations for how students were to participate within the lesson to enable the teacher to conduct the planned lesson. However, not all teachers expressed clear expectations for how students were to *engage in learning* within the lesson, with explicit links to student improvement, growth and development. Indeed, the results of Study 1 showed that many teachers were either unable to

distinguish between *learning* and *engagement*, or believed learning to be an inevitable byproduct of engaging. Given that, teachers who emphasize engagement in the lesson, without making explicit connections to student engagement and student learning, may run the risk of assuming that students who are compliant, busy and productive are learning. This is problematic for several reasons. First, students who easily complete set tasks with minimal effort may be denied adequate challenge to facilitate their development, and with time may either become disengaged (Marks, 2000) or unwilling and unprepared to engage in challenge as part of learning (Turner et al., 2002). Second, students who are unable to engage with set tasks because they are too challenging or inadequately supported, may be labeled as disengaged and denied adequate opportunities to learn if the teacher does not accurately identify the causes of this disengagement. As teachers in this research did not always include causal attributions as part of their descriptions of the pedagogical process of engaging students, this may be a significant problem in some classrooms. Finally, as discussed earlier, expectations for *engagement in the lesson* are primarily focused on *Participating*, the most passive form of engagement described by these teachers. If a teacher's expectations for student engagement emphasize only this form of engagement, this may put a ceiling on the opportunities that students are given to become active, autonomous and self-directed learners. This not only prohibits the development of necessary skills for lifelong learning, but may also limit their potential for learning in that classroom and may contribute to student disengagement from school if the experience continues over time and with multiple teachers.

Some of the interviewed teachers raised the potential problem of effectively responding to passive disengagement in learning within the real world of the classroom

you know the kids that always concern me are those quiet – you know you hate to use the label but that's what it becomes, those average students. They're quiet, they're compliant, they're easy, they're passive learners, you know, they never ripple anything and they are always the ones that I worry about...and, you know, they'll always smile and have nice handwriting, and all those things, that are surface things, and you worry that you're really not connecting with them or moving them along to where they need to be (Tracey)

Well I think it does appear on my radar and I mean to talk to them and I just don't get around to it if I'm just being brutally honest. You know, I have notes in my planner all the time... and then it just doesn't happen but I think, well it's not a priority because they're doing fine and they're achieving and they're at grade five standard, possibly above and I know it's not detrimental to them because I'm thinking, they're doing great and they're happy, happy at recess but you know, in an ideal world, I would want them to achieve their full potential. (Kellie)

Others acknowledge the difficulty of assessing engagement within lessons, particularly when students present as willing participants in the lesson.

Even engagement can be really hard to figure out, because are they engaged or are they just there? Sometimes you don't know. They might look engaged, they might look like they're looking at you and they're showing good body language, but are they actually interested in what I'm talking about, interested in learning? Sometimes I can think I teach a fantastic lesson, and I'm like, "Wasn't that great?", and my shining beacon of a student will be like, "It was actually really boring," and I'm like, "But you look like you were so into it," and she's like, "Yeah, it was all right." (Tina)

These comments illustrate the potential disconnect between engaging in lessons and engaging in learning.

Classroom constructions of engagement

In the same way that teachers create a certain type of classroom climate or environment through their interactions with students and the expectations they have for students interacting with their peers, teachers create a climate for learning that represents their expectations for how students will engage in learning experiences in that classroom. Students may enter a new classroom with ideas about learning, school, classrooms and beliefs about themselves as a learner at school, but they also come to learn what it means to be a student, what it means to be a learner and what it means to be engaged in learning within that particular classroom. This is largely communicated from teacher to students through the opportunities for learning and engagement provided in the classroom and the messages teachers give about what it means to be engaged in learning within that classroom. While it is true that the decision about whether to engage in classroom learning experiences rests ultimately with the student, it is the teacher who determines the boundaries for what form that engagement is allowed to take within that experience. At times, students may negotiate an alternative form, as was the case in Mark's classroom when the students took the engagement 'to a level that had not been anticipated', but this required a negotiation with the teachers to allow that to happen. Based on the classrooms observed in Study 2a, it was anticipated that students would perceive expectations for engagement that would correlate with the differences observed in the classrooms. In particular, it was hypothesised that students would perceive higher expectations for engagement in Diana's classroom than in the other classrooms, a hypothesis that was supported by the findings from the survey. In this way, we see how the beliefs that teachers have about student engagement, especially their expectations

for student engagement, influence their engagement-related interactions within lessons and ultimately their students understanding of what is expected of them as learners within that classroom. Whether or not students rise to meet those expectations is another question, and one that is worth exploring in the future. Likewise, and equally important, is determining whether higher teacher expectations for student engagement correlates with better learning outcomes for the students.

Educational implications and future directions

Teachers and schools continue to struggle with the task of facilitating greater student engagement and addressing rising disengagement from school as students progress through the education system (Goss & Sonnemann, 2017; Hardré & Hennessey, 2013; Sullivan et al., 2014; Wang & Eccles, 2012; Wigfield et al., 2015). It has been argued here that there may be a disconnect between the conceptions of engagement represented in the research literature and the way that teachers think about and experience student engagement within their classrooms. This thesis has explored the teacher's perspective as a way of improving our understanding of the real world experience of trying to engage students within the classroom. The findings have several implications for practice, and many of these have been addressed in the previous chapters and within this chapter.

The pedagogical model for engaging students offered in this thesis aims to offer some clarity about the specific processes that are involved in engaging students and makes a clear distinction between *engaging in the lesson* and *engaging in learning*. Additionally, the typology describes specific forms of engagement and disengagement that represent teachers' real-world experiences of student engagement. Taken together, these may provide a common language around which to develop teachers' skills, understanding and pedagogy for engagement. This

language of engagement might also be used to facilitate more meaningful conversations within schools about what we mean when we say we want our students to be engaged. For example, using the lens of *engaging students in learning* might provide an opportunity to prompt deeper thinking during planning to encourage teachers to move beyond curriculum delivery and connect curriculum goals with individual learning needs. This might include conversations between teachers around the learning needs of individual students, the most appropriate strategies for meeting those needs, and the indicators of success that they will be looking for. Central to these conversations are questions about learning - *who is the learner*, *what are they learning* and *how will they engage in that learning*. Answering the first two questions requires a certain level of teacher skill in assessment and knowledge of the curriculum and content, things that are fairly common in teacher education courses and readily accepted as requisite skills for teaching. However, answering the question of *how* students will engage in learning requires a level of understanding of the process of learning and strategies for learning. Judging by the responses of the teachers in this research, the concept of learning remains an intangible and fuzzy mystery for many. Without this knowledge, teachers may fall back on focusing on preferred teaching strategies rather than selecting learning strategies that are targeted at individual learning goals, and on what the students will do rather than how they will learn.

The typology itself might provide teachers with a clearer indication of the type of engagement they are seeking and seeing in the classroom, and this may be useful for reflecting on lessons, setting goals for their own development and that of their students, and planning subsequent learning experiences. For example, using the typology might lead a teacher to identify a pattern emerging where some students regularly demonstrate indicators of *Participating* in learning experiences but little indication of any *Investing* or *Driving* behaviours.

Noticing such a pattern might motivate the teacher to investigate why this might be the case and to look for ways to facilitate more active engagement in this group of students. As the typology describes specific engagement related behaviours that are associated with each form, this might provide both a useful way of observing engagement in a lesson (as described above) and a useful point of reference when looking for strategies to facilitate engagement. That is, knowing that I am looking to encourage specific behaviours (e.g., curiosity and questioning) might make it easier for me to access evidence-based strategies for facilitating this specific aspect of engagement.

In addition to providing a more nuanced language for student engagement, the typology and pedagogical model presented in this thesis might go some way to shifting the persistent discourse surrounding student engagement that focuses on preventing disruptive behaviours and equates compliance to engagement (e.g., Goss et al., 2017). Ironically, many of the strategies that teachers report using to address student behaviour problems are attempts to control and coerce (e.g., step systems)(Sullivan et al., 2014), behaviours that have been shown to diminish rather than promote student engagement (Earl et al., 2017). Such messages blur the distinction between managing student behaviour and facilitating student learning and help to perpetuate the belief that keeping students busy, behaving and productive will ensure they are learning, a belief that was expressed by many teachers in this research.

Implications for future research

Rather than offering an alternative to the existing methods and theoretical perspectives underpinning engagement research, this research hopes to provide an additional perspective and methods that complement rather than compete with those already in existence. Existing methods and theoretical lenses have sought to understand the lived experience of being engaged or

disengaged, in other words, the individual experience of engagement. While this has provided many insights into patterns in student engagement, trajectories of engagement and fluctuations in engagement within lessons, the connections to teacher engagement practices are limited. What is missing is an understanding of how teachers go about the task of engaging students each day in the classroom, and how they conceive of engagement within the context of the classroom and the context of learning. This missing element has arguably presented a barrier to translating research findings into practice in any meaningful way.

Undeniably, more work is needed to test the typology and model that have been presented in this thesis. Many questions remain unanswered, including:

- Do other teachers (from other year levels, other schools, and other countries) describe the same forms of engagement and the same process for engaging students in the classroom?
- Do some teachers have different engagement expectations for different students?
- What is the relationship between teacher expectations for student engagement and their expectations for student achievement?
- What is the relationship between teacher expectations for student engagement and student outcomes such as achievement, self-efficacy and attitudes to school?
- Are there accumulation effects when students have a succession of high/low engagement expectations teachers?

A number of steps might be taken to further develop and test the typology of engagement presented in this thesis. First, the reliability of the typology as a coding scheme for analysing teacher interview data might be tested by bringing in additional coders to investigate the level of consensus in how the codes are applied. This process might lead to further refinements to the

typology and the descriptions of each form of engagement/disengagement. In order to further test the validity of the typology as a representation of teacher descriptions of engagement and disengagement, more interview data must be sought from a wider group of teachers to determine if the existing categories are sufficient and add new categories if necessary. Following on from this, it might be possible to use the interview data and the typology to develop items to capture teachers' beliefs and self-reported practices in relation to student engagement. Having a quantitative measure of this will be essential if we are to conduct more complex and larger scale investigations into the potential relationship between teachers' engagement beliefs, their engagement practices and student outcomes.

In Study 2, the typology was used to code teacher engagement-related practices during observed lessons, allowing an insight into the expectations that teachers had for student engagement in the classroom. There is potential to build on this work to develop a classroom observation protocol that is focused on the pedagogy of engagement and the enactment of engagement expectations in lessons. As with the typology, an initial step towards this might be to bring in additional researchers and use video-recorded lessons to test the reliability of coding teacher behaviour within lessons with the categories from the typology. Along with this, a standardised protocol for observing lessons would need to be developed and tested.

A survey of student perceptions of teacher engagement expectations was developed here and might be expanded on in future research to include student reports of their own engagement related behaviours in the classroom as a companion to their perception of the expectations for engagement. Such an instrument would support investigations into whether students match their behaviour to the perceived teacher expectations for engagement. In order to do that, it would be useful to investigate student perspectives on engagement and learning within the classroom, as

has been done here with teachers. This might begin with individual interviews or focus groups to better understand how they understand concepts such as engagement, learning and motivation within the context of the classroom. The typology and coding scheme used in this thesis for teacher interviews might be tested for its viability in coding student interview data, but it may be necessary to develop a new typology to better represent the student perspective.

Limitations of the research

All research has limitations, and these studies are no exception. The specific limitations for each study have been discussed in previous chapters. Looking at the research project as a whole, attempts were made to address these limitations by triangulating the data collected across the studies. The ability to do so is considered a strength of mixed methods research (Creswell, 2012). Qualitative research, the predominant approach in this project, carries a certain amount of subjectivity that cannot be overlooked. Both the collection of data and the analysis of that data are influenced by the researcher. It is the researcher who decides which questions will be asked (and not asked), which responses will be followed up, what will be observed, and how the data will be recorded and interpreted. As a result, the data that is collected is data that has been "filtered" through the lens of the researcher (Creswell, 2012, p. 218). An example of this "filtering" was apparent in the observation notes. While efforts were made to check the inferences the researcher made about the teacher's intentions for acting in the observed lessons, this may or may not align with the intentions the teacher may have expressed if asked directly to explain what they were doing and why (e.g., stimulated recall using videotaped lessons). A potential limitation in the coding of the interview data is the lack of reliability checks. The codes were developed through an inductive approach in Study 1 and then refined and applied in Study

2. Now that this has been done, a desirable next step would be to test the reliability of this coding scheme by bringing in other coders to establish a level of inter-rater reliability.

Moreover, the accuracy of the data collected may have been affected by some form of social desirability bias. Social desirability has been described as a reflection of "the tendency on behalf of the subjects to deny socially undesirable traits and to claim socially desirable ones, and the tendency to say things which place the speaker in a favourable light" (Nederhof, 1985, p. 264). In this project, it is possible that teachers emphasised and expressed beliefs and practices that would be considered socially desirable in the current education context (e.g., learner-centred approaches rather than traditional teacher-centred approaches). In Study 2a, the teachers generally agreed with the researcher's interpretation and when they added additional information this was provided as further context (e.g., background on a particular student) or to add additional reasoning for their actions (e.g., "Yes, and I also wanted to..."). There were no instances where the teacher contradicted the inference made by the researcher. This may be due to the accuracy of the researcher interpretations, but may also reflect a desire on the part of the teacher to defer to the researcher's judgement. Similarly, in observational research it is always possible that the mere presence of the researcher might influence the behaviour of those being observed (Lecompte & Goetz, 1982). Despite attempts to minimise such observer effects (e.g., having multiple observations, developing a rapport with the teachers), there may have been some differences in the way that students and teachers behaved during observed lessons and non-observed lessons.

Quantitative approaches, such as the use of questionnaires, may address issues of researcher subjectivity, but they too are not without limitations. One of the limitations of questionnaires involving rating scales is the possibility that choices may be forced and may not

adequately represent the actual attitudes or thinking of the respondent. Due to the closed nature of the responses, and the inability of the researcher to probe or follow up on responses, the data may not present an accurate picture of the phenomenon being studied. As Cohen, Manion and Morrison (2011) warned, "It might be the case that there is something far more pressing about the issue than the rating scale includes but which is condemned to silence for want of a category" (p. 388). While steps were taken to reduce the sources of bias associated with this method, it is reasonable to assume that some bias may have still impacted on the responses. For example, students may have responded in ways that they think are more socially acceptable, particularly in relation to their own effort and learning behaviours. It is also possible that students interpreted items in a different way than intended by the researcher.

This research has been largely exploratory and small-scale in nature, and restricting the target population to upper primary classrooms in Victoria, Australia certainly places additional boundaries on any possible generalisations that can be made from the findings. The intent has not been to generalise to any wider population of teachers, but to identify patterns, ideas and processes that might be investigated with larger, and more diverse groups of teachers. It is entirely possible that this may result in additional forms of engagement or disengagement and more detail about the processes involved in engaging students. It is also possible that there may be cultural differences in how teachers conceptualise and operationalise student engagement, and these would need to be explored rather than assuming that the typology and model presented in this thesis would apply to all teachers. There is evidence to suggest that culture informs teacher beliefs about student motivation and in turn influences their motivating style (Reeve et al., 2014), and it is reasonable to hypothesise that similar cultural influences might be found in relation to student engagement.

It remains that we have limited understanding of how aware teachers are of their own engagement beliefs, their expectations for engagement and their engagement related practices within the classroom. Attempts were made in Study 2 to link teachers' engagement practices with their expectations for engagement; however, this involved an amount of interpretation on the part of the researcher and may not completely reflect the lived experience of the teacher, especially on a conscious, aware level. That is, without the researcher prompting them to reflect on their purposes for intervening within lessons it is difficult to know whether teachers would have engaged in such reflective practices themselves as part of their everyday teaching practice. It might be reasonable to believe that Diana was very aware of her intentions for intervening and her expectations for engagement given the amount of detail she provided in both the observation field notes and her interview, but it is less clear when it comes to the other teachers. Whether teacher engagement practice is purposefully linked to improving student engagement in learning is a question that has been raised earlier and one that should be investigated in future research.

It is important to remain cautious about how this typology might be used given it is a representation of the teacher perspective and not the students. While student data was collected in Study 2, no qualitative data was collected in relation to student perspectives on engagement and we know little of how they conceive of engagement in the context of the classroom. As others have advocated (Fredricks et al., 2016), our understanding of student engagement will only improve by attempts to give voice to the students themselves. Such investigations might begin with similar methods to those used here with teachers to gain an insight in to how students think about and experience their own engagement in the classroom.

Concluding remarks

Researching engagement as a psychological phenomenon allows us to understand how it might develop, the characteristics of engagement, possible barriers and facilitators to engagement, and potential benefits of engagement. To date, it has not provided us with a pedagogy for engagement, or even a clear set of strategies and recommendations that reflect the real-life experiences of those charged with facilitating engagement in schools. In an effort to include the teachers' perspective in the ongoing conversations about student engagement, this research has explored their experiences, thoughts, challenges, successes and day-to-day attempts to promote student engagement. Rather than a problem to be solved once and for all, as is often implied in the literature, perhaps a more realistic and accurate conception is to view student engagement as an ongoing challenge faced by teachers in each and every lesson. There are certainly wins to be had along the way, and all of the teachers could recount those during interviews. However, even with expertise this challenge requires constant thought, attention and action on the teacher's part.

The findings from this research indicate two distinct purposes for engaging students in the classroom. The first is a function of classroom management and involves monitoring, diagnosing and intervening for student disengagement (particularly when it poses a threat to the smooth running of the lesson). The primary focus of attempts to intervene is to promote participation in the lesson, for example getting work done, paying attention and responding to the teacher's questions. To a lesser extent, teachers may attempt to promote a level of investment in the lesson by appealing to student interests and encouraging students to share their ideas or opinions within the lesson, but the main focus remains at the level of participating in the lesson events as designed by the teacher. A second function of engaging students revolves around the

students' involvement in the process of learning. This also involves monitoring, diagnosing and intervening but the focus is not on the impact that a student's engagement has on the classroom but on the impact it has on the individual student's opportunity to learn. Not only is the teacher monitoring for signs of disengagement from the learning experience, such as withdrawing from group discussions or avoiding set tasks, but also monitoring for signs of under-engagement, such as passive participation and avoiding challenge. The primary focus of attempts to intervene is to promote the form of engagement that is deemed most appropriate for learning to occur. At different times this will be in the form of participating (e.g., paying attention while the teacher explains something), investing (e.g., sharing ideas, seeing the value in the learning), and driving (e.g., setting learning goals, seeking feedback to improve). Undoubtedly, this is far more challenging for the teacher as it requires a certain level of understanding of both the theoretical frameworks for learning and adequate skills and knowledge to effectively facilitate the learning of each individual student.

This thesis provides only an entry point into our understanding of the pedagogy of student engagement and while a model has been proposed, one that is grounded in the data collected in this research, it remains to be tested and further developed as more empirical evidence is sought.

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Appendix A: Ethics approval letters

23 June 2016

Prof John Hattie
Melbourne Graduate School of Education
The University of Melbourne



Dear **Prof Hattie**

I am pleased to advise that the **Melbourne Graduate School of Education Human Ethics Advisory Group (MGSE HEAG)** has approved the following **Minimal Risk** application:

Project title: **Exploring teacher beliefs about learning, student motivation and student engagement.**
Researchers: **John Hattie, Amy Berry and Dianne Vella-Brodrick.**
Ethics ID/HREC: **1646921**
MGSE HEAG ID: **86.16**

The project has been approved for the period: **23 June 2016 to 31 December 2016**, and **subject to Provision of evidence of required external approvals.**

It is your responsibility to ensure that all people associated with the Project are made aware of what has been approved.

Research projects are normally approved to 31 December of the year of approval. Projects may be renewed yearly for up to a total of five years upon receipt of a satisfactory annual report. If a project is to continue beyond five years, a new application will normally need to be submitted.

Please note that the following conditions apply to your approval. Failure to abide by these conditions may result in suspension or discontinuation of approval and disciplinary action.

- (a) **Limit of Approval:** Approval is limited strictly to the research as submitted in your Project application.
- (b) **Amendments to Project:** Any subsequent variations or modifications you might wish to make to the Project must be notified formally to the Human Ethics Advisory Group for further consideration and approval before the revised Project can commence. If the Human Ethics Advisory Group considers that the proposed amendments are significant, you may be required to submit a new application for approval of the revised Project.
- (c) **Incidents or adverse effects:** Researchers must report immediately to the Advisory Group and the relevant Sub-Committee anything which might affect the ethical acceptance of the protocol including adverse effects on participants or unforeseen events that might affect continued ethical acceptability of the Project. Failure to do so may result in suspension or cancellation of approval.
- (d) **Monitoring:** All projects are subject to monitoring at any time by the Human Research Ethics Committee.
- (e) **Annual Report:** Please be aware that the Human Research Ethics Committee requires that researchers submit an annual report on each of their projects at the end of the year, or at the conclusion of a project if it continues for less than this time. Failure to submit an annual report will mean that ethics approval will lapse.
- (f) **Auditing:** All projects may be subject to audit by members of the Sub-Committee.

Please quote the ethics registration number and the name of the Project in any future correspondence.

On behalf of the Ethics Committee, I wish you well in your research.

Yours sincerely

Professor Susan Wright
Deputy Chairperson, Melbourne Graduate School of Education Human Ethics Advisory Group
Phone: 83448339, Email: susan.wright@unimelb.edu.au

cc: **Amy Berry, Dianne Vella-Brodrick and Human Research Ethics Committee (HREC), The Office for Research Ethics and Integrity.**

Melbourne Education Research Institute (MERI)
Melbourne Graduate School of Education
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Ethics Application 1748599

themisPROD-noreply@unimelb.edu.au

Thu 30/03/2017 4:37 PM

To: Amy Elizabeth Berry <amy.berry@unimelb.edu.au>;

Dear Prof Hattie

I am pleased to advise that the Humanities and Applied Sciences Human Ethics Sub-Committee has approved the following Project:

Project Title: Engaging students in upper primary classrooms: Exploring teachers' conceptions and approaches to student engagement
Researchers: Prof J A Hattie, Prof D A Vella-Brodrick, A Berry
Ethics ID: 1748599

The Project has been approved for the period: 30-Mar-2017 to 31-Dec-2017

A signed letter confirming this approval will be forwarded to you shortly.

It is your responsibility to ensure that all people associated with the Project are made aware of what has actually been approved.

Research projects are normally approved to 31 December of the year of approval. Projects may be renewed yearly for up to a total of five years upon receipt of a satisfactory annual report. If a project is to continue beyond five years a new application will normally need to be submitted.

Please note that the following conditions apply to your approval. Failure to abide by these conditions may result in suspension or discontinuation of approval and/or disciplinary action.

(a) Limit of Approval: Approval is limited strictly to the research as submitted in your Project application.

(b) Variation to Project: Any subsequent variations or modifications you might wish to make to the Project must be notified formally to the Human Ethics Sub-Committee for further consideration and approval. If the Sub-Committee considers that the proposed changes are significant, you may be required to submit a new application for approval of the revised Project.

(c) Incidents or adverse effects: Researchers must report immediately to the Sub-Committee anything which might affect the ethical acceptance of the protocol including adverse effects on participants or unforeseen events that might affect continued ethical acceptability of the Project. Failure to do so may result in suspension or cancellation of approval.

(d) Monitoring: All projects are subject to monitoring at any time by the Human Research Ethics Committee.

(e) Annual Report: Please be aware that the Human Research Ethics Committee requires that researchers submit an annual report on each of their projects at the end of the year, or at the conclusion of a project if it continues for less than this time. Failure to submit an annual report will mean that ethics approval will lapse.

(f) Auditing: All projects may be subject to audit by members of the Sub-Committee.

If you have any queries on these matters, or require additional information, please contact me using the details below.

Please quote the ethics ID number and the title of the Project in any future correspondence.

On behalf of the Sub-Committee I wish you well in your research.

Ms Jennifer Hassell
Secretary, Humanities and Applied Sciences HESC
Phone: 90353341, Email: hassell@unimelb.edu.au

I am pleased to advise that the Education Fine Arts Music & Business Human Ethics Sub-Committee has approved the following Project:

Project Title: Exploring student perceptions of the classroom learning environment and their relationship to teacher engagement practices

Researchers: Prof D A Vella-Brodrick, Prof J A Hattie, A Berry

Ethics ID: 1851349.1

The Project has been approved for the period: 30-Apr-2018 to 31-Dec-2018

A signed letter confirming this approval will be forwarded to you shortly.

It is your responsibility to ensure that all people associated with the Project are made aware of what has actually been approved.

Research projects are normally approved to 31 December of the year of approval. Projects may be renewed yearly for up to a total of five years upon receipt of a satisfactory annual report. If a project is to continue beyond five years a new application will normally need to be submitted.

Please note that the following conditions apply to your approval. Failure to abide by these conditions may result in suspension or discontinuation of approval and/or disciplinary action.

(a) Limit of Approval: Approval is limited strictly to the research as submitted in your Project application.

(b) Variation to Project: Any subsequent variations or modifications you might wish to make to the Project must be notified formally to the Human Ethics Sub-Committee for further consideration and approval. If the Sub-Committee considers that the proposed changes are significant, you may be required to submit a new application for approval of the revised Project.

(c) Incidents or adverse effects: Researchers must report immediately to the Sub-Committee anything which might affect the ethical acceptance of the protocol including adverse effects on participants or unforeseen events that might affect continued ethical acceptability of the Project. Failure to do so may result in suspension or cancellation of approval.

(d) Monitoring: All projects are subject to monitoring at any time by the Human Research Ethics Committee.

(e) Annual Report: Please be aware that the Human Research Ethics Committee requires that researchers submit an annual report on each of their projects at the end of the year, or at the conclusion of a project if it continues for less than this time. Failure to submit an annual report will mean that ethics approval will lapse.

(f) Auditing: All projects may be subject to audit by members of the Sub-Committee.

If you have any queries on these matters, or require additional information, please contact me using the details below.

Please quote the ethics ID number and the title of the Project in any future correspondence.

On behalf of the Sub-Committee I wish you well in your research.

Ms Belinda Kelly
HESC Secretary
Phone: 90359095 Email: Belinda.Kelly@unimelb.edu.au

Appendix B: Study 1 interview protocol

Interview protocol

Exploring teacher beliefs about learning, student motivation and student engagement

Beliefs about learning:

- How would you best describe what is meant by learning?
- How do you know when a student has learned something?
 - Prompts: Are there some students who are better at learning than others? What is your role in student learning? What is the student's role?

Beliefs about student motivation:

- How would you best describe what is meant by student motivation?
- How do you know when a student is motivated to learn? What does a motivated student look like?
- What do you see as barriers to student motivation?
- What do think supports or promotes student motivation?
 - Prompts: Is this the same for all students or are there differences between students?

Beliefs about student engagement:

- How would you best describe student engagement?
- Can you tell the story of a time when students were engaged in your class?
- How do you know when a student is engaged in your classroom?
- What specific strategies do you use to foster engagement?
 - Prompts: Are there some students who seem more likely to engage than others? Why? Are there some students who seem less likely to engage than others? Why?

Beliefs about the relationship between these concepts:

- What do you see as the relationship between learning, student motivation and student engagement?
 - Prompts: Can you provide an example of how this looks within your class? From your experience with particular students?

Appendix C: Student questionnaire

This is not a test. The questions are to find out what you think about learning in your classroom. *Answer all the questions truthfully.* Your name will not be written anywhere on this booklet and your teacher will never see your answers. Remember, there are no right or wrong answers, we are just interested in finding out what you think.

I am:

☐ A girl

☐ A boy

☐ Other

☐ I don't want to answer

I am in:

☐ Grade 5

☐ Grade 6

Directions

Neatly circle the answer you feel is the best answer:

ALMOST ALWAYS if you feel the statement is true *almost always* or *always* in class.OFTEN if you feel the statement is true *a lot* in class.SOMETIMES if you feel the statement is true *sometimes* in class.SELDOM if you feel the statement is true *not very much* in class.ALMOST NEVER if you feel the statement is true *almost never* or *never* in class.

	Answers				
	Almost never	Seldom	Some times	Often	Almost always
1. My teacher cares about my feelings.	1	2	3	4	5
2. I work with other students in class.	1	2	3	4	5
3. I pay attention during class.	1	2	3	4	5
4. I talk about my ideas with other students in class.	1	2	3	4	5
5. My teacher likes me.	1	2	3	4	5
6. When I work in groups in this class, there is teamwork.	1	2	3	4	5
7. I understand how to do my work in class.	1	2	3	4	5
8. I answer questions during class.	1	2	3	4	5
9. My teacher wants me to do well in class.	1	2	3	4	5
10. I work alone instead of in groups.	1	2	3	4	5
11. I know what I am supposed to learn in class.	1	2	3	4	5
12. I ask the teacher questions.	1	2	3	4	5

	Almost never	Seldom	Some times	Often	Almost always
13. My teacher treats me the same as other students in class.	1	2	3	4	5
14. I learn from other students in this class.	1	2	3	4	5
15. Getting work done in class is important to me.	1	2	3	4	5
16. In class, I help others with classwork.	1	2	3	4	5
17. The teacher is as friendly to me as to other students.	1	2	3	4	5
18. I get along with other students in class activities.	1	2	3	4	5
19. I know what the teacher wants me to do in class.	1	2	3	4	5
20. I give my opinions during discussions in this class.	1	2	3	4	5
21. My teacher likes all the students in my class.	1	2	3	4	5
22. Students work with me to achieve our class goals.	1	2	3	4	5
23. I am asked to talk about how I solve problems in this class.	1	2	3	4	5
24. My teacher is fair to all the students in class.	1	2	3	4	5
25. My teacher encourages us to listen when he/she is teaching us something.	1	2	3	4	5
26. My teacher encourages us to ask questions about what we are learning.	1	2	3	4	5

	Almost never	Seldom	Some times	Often	Almost always
27. My teacher expects us to explain how we found an answer.	1	2	3	4	5
28. My teacher asks us questions during lessons.	1	2	3	4	5
29. My teacher asks us to share our ideas with each other.	1	2	3	4	5
30. My teacher asks us to set our own learning goals.	1	2	3	4	5
31. My teacher encourages us to finish our work during lessons.	1	2	3	4	5
32. My teacher encourages us to enjoy learning in class.	1	2	3	4	5
33. My teacher encourages us to talk about how we learn.	1	2	3	4	5
34. My teacher asks us to work together on activities.	1	2	3	4	5
35. My teacher encourages us to see how what we are learning is related to life outside of school.	1	2	3	4	5
36. My teacher encourages us explain what we need to do to improve.	1	2	3	4	5
37. I keep trying even if something is hard.	1	2	3	4	5
38. I don't think that hard when I am doing work in class.	1	2	3	4	5
39. I try to understand my mistakes when I get something wrong.	1	2	3	4	5
40. I try to work with others who can help me in class.	1	2	3	4	5

	Almost never	Seldom	Some times	Often	Almost always
41. I often feel frustrated in class.	1	2	3	4	5
42. I complete my work on time.	1	2	3	4	5
43. I don't like working with others in class.	1	2	3	4	5
44. I try to help others who are struggling in class.	1	2	3	4	5
45. I do other things when I am supposed to be paying attention.	1	2	3	4	5
46. I feel good when I am in class.	1	2	3	4	5
47. I try to connect what I am learning to things I have learned before.	1	2	3	4	5
48. I enjoy learning new things in class.	1	2	3	4	5

All finished!!

Thanks for your help with my research project!

Appendix D: Survey administration script

Good morning everyone! My name is Amy and I wrote to you recently to ask if you would like to help me with my research. I used to be a primary school teacher but I decided to go back to university to learn more about teaching and learning. Instead of taking classes where someone is teaching me, I am learning by doing research. In my research I am very interested in finding out about what teachers and students think about learning in school.

Today I am going to ask you some questions about what you think about learning in your classroom. This is not a test and there are no right or wrong answers. Your name will not be written anywhere on your booklet so there will be no way of knowing which answers are yours so please answer as truthfully as you can. I will send your teacher a report about how the class answered the questions but it won't have any names in it. For example, I might say that for the question "I eat breakfast in the morning" 5 people said *Never*, 10 people said *Most days*, and 11 people said *Every day*.

I will read each question for you and if you have any questions you can ask them at any time. If you feel like you don't want to take part in the research anymore, that is ok, you can make that decision at any time. Just turn your paper over and wait quietly while we finish.

At the end I will collect all of your booklets and take them with me.

Does anyone have any questions? This is not a test. The questions are to find out what you think about learning in your classroom. *Answer all the questions truthfully.* Your name will not be written anywhere on this booklet and your teacher will never see your answers. Remember, there are no right or wrong answers; we are just interested in finding out what you think.

