Secondary Teachers' Understandings of Student Engagement: The Differences between Understanding and Practice

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Abstract: Student engagement remains a topical aspect of learning and teaching as it influences student outcomes and learning experiences. It is generally accepted to be a malleable construct encompassing students' actions, feelings and thoughts, all of which are influenced by the learning context and pedagogical choices made by the teacher. The aim of the current study was to investigate secondary teachers' understandings of student engagement in relation to three dimensions (behavioural, emotional and cognitive engagement), and how these understandings align with actual teaching practice. The mixed methods study collected data from six secondary teachers using an online questionnaire, interviews, and classroom observations. It was found that some teachers hold views about student engagement that differ from the practices they implement in their classrooms. The qualitative data suggests that the engagement strategies some teachers implement in the classroom, or feel they can implement, may be influenced by the socio-economic context of a school. Findings contribute novel insights to existing literature about secondary teachers' prioritisation of strategies, and implementation of practices, to foster student engagement in the classroom.

Keywords: student engagement; behavioural engagement; emotional engagement; cognitive engagement; teachers; pedagogy

Introduction

Student engagement, defined as having behavioural, emotional and cognitive dimensions, is a current and topical issue both nationally and internationally. Fredrick's et al. (2004) engagement framework has prompted an extensive amount of research in this area to date and has expanded our understanding of the concept of student engagement in relation to these three dimensions substantially (Boekaerts, 2016). When students sustain high levels of behavioural, emotional and cognitive engagement the likelihood of them achieving academically increases (Archambault et al., 2019). Student engagement is considered a predictor of a range of positive educational outcomes and an antecedent to students' achievement and learning (Bae et al., 2020; Engels et al., 2021). The Centre for Education Statistics and Evaluation (CESE) (2017) found that positively engaged secondary students can be ahead of their peers by up to six months in their learning. It is thus imperative that

institutions and schools develop a clear shared definition of student engagement to support clarity around the construct for educators and enable them to effectively implement teaching strategies that enhance engagement and learning in the classroom.

There is still no widely accepted theory of engagement, and the concept of student engagement remains ambiguous, resulting in a lack of definitive guidelines for researchers and educators (Azevedo, 2015; Boekaerts, 2016; Moreira et al., 2020). Without consensus on the construct's boundaries, researchers have relied on concepts from other theories to explore student engagement at a classroom level (Boekaerts, 2016; Fredricks et al., 2004). This creates difficulties in achieving consistent definitions and measurements of student engagement as it draws from various fields such as Self-Determination Theory, motivation, and self-regulated learning (Fredricks, 2011). As a result, although student engagement is typically described in terms of doing, thinking, and feeling, the differences between the dimensions can be "quite subtle and... quite fuzzy" (Eccles, 2016, p. 72).

Even so, researchers widely agree that student engagement is a multifaceted or multidimensional construct (Boekaerts, 2016; Eccles, 2016; Fredricks et al., 2016), comprised of three dimensions: behavioural, emotional, and cognitive engagement. Fredricks et al. (2004) played a crucial role in consolidating the three dimensions of engagement through a comprehensive review. The seminal review built on previous research by bringing together existing definitions of student engagement, linking established theories to the concept, and addressing the challenges of definition and measurement. The tri-partite framework described by Fredricks et al. (behavioural, emotional, cognitive engagement) prompted considerable research on the subject, greatly enhancing understanding of student engagement in these dimensions (Boekaerts, 2016). Given its practicality for teachers and students and its prevalence in the literature, this tri-dimensional model of student engagement served as the theoretical framework for the current study. This provided a clear structure for collecting and analysing data, as each dimension can be influenced by teachers through various behaviours and teaching strategies.

Student engagement is generally understood to be a multidimensional construct which consists of three distinct, yet interrelated dimensions; behavioural, emotional and cognitive engagement (Connell, 1990; Connell & Wellborn, 1991; Fredricks, 2011). For the purposes of the current study, behavioural engagement is understood to include attendance, participation, effort, persistence, on-task attention, and positive conduct with no disruptive behaviour (Boekaerts, 2016; Fredricks, 2011; Fredricks, 2016a; Reeve & Tseng, 2011). Emotional engagement encompasses both negative and positive reactions to classmates, teachers and school, identification with school subjects or the school, and a sense of belonging. It includes students' internal emotions such as anxiety, sadness, boredom and happiness (Fredricks et al., 2016a, p. 2). Cognitive engagement encompasses the level of investment in learning, including a student's willingness to make the required effort to master new and difficult skills, and understand cognitively complex ideas. It draws on self-regulation and strategy use (Fredricks et al., 2004; Fredricks, 2011).

Prior research has recognised it is necessary to include multiple dimensions of engagement when researching the construct, in order to achieve a greater insight and a more comprehensive understanding of learners' experiences (Department for Education and Child Development, 2018; Engels et al., 2021; Goldspink, et al., 2008; Moreira, et al., 2020). While it may be expected that effective pedagogical approaches can support all dimensions of student engagement, McKellar et al. (2020) suggest that particular teaching strategies may be more effective in supporting different dimensions of student engagement. Therefore, a challenging situation exists for teachers, in that they must have a clear understanding of teaching strategies that support students' behavioural, emotional and cognitive engagement, as well as the confidence and ability to implement these strategies in often challenging

learning environments. It is therefore crucial that research continues to consolidate an understanding of what teachers perceive student engagement to be in relation to these dimensions and, importantly, how these understandings translate into classroom practice.

The current investigation examines the perspectives of secondary school teachers. Enhancing student engagement has been a primary objective for many schools in the United States, particularly at the secondary level (Fredricks et al., 2016b; National Research Council & Institute of Medicine, 2004), as research indicates a decline in student engagement when transitioning from primary to secondary school (Anderson et al., 2019; Fredricks, 2011), with a further decrease observed during the middle school years (CESE, 2015; Engels et al., 2021; Hughes & Cao, 2018; Virtanen et al., 2021; Wang and Eccles, 2011). Moreover, student engagement remains a significant concern in Australia, especially during the middle years of schooling (CESE, 2015; Zyngier, 2008), supporting the need for continued exploration of this educational objective in Australian secondary schools. With this in mind, this article seeks to address the research question: How do secondary teachers' understandings of student engagement align with their classroom practice?

Background to the Study

Research has found that teachers hold disparate understandings of student engagement and what it looks like in the classroom (Berry, 2020; Harris, 2008). Indeed, teachers describe their understandings of student engagement in different ways and/or place greater importance on teaching strategies that support different dimensions of engagement (Berry 2020; Cothran & Ennis 2000; Harris 2008; Kelly et al., 2022; Melbourne Graduate School of Education, n.d.; Zepke et al., 2014). Descriptions of student engagement provided by teachers are diverse, as some teachers focus solely on behavioural aspects of engagement while others may consider students' internal emotions and/or cognitions (emotional or cognitive engagement) (Harris, 2008). This is important, as in order to enhance successful student outcomes, teachers may need to focus on improving discrete dimensions of engagement (Wang & Eccles, 2011).

The current study examines a gap in the literature by investigating secondary teachers' understandings of student engagement (behavioural, emotional and cognitive), and how these understandings align with their classroom practice. The inclusion of observational data of teaching practice in the current study contributes novel findings to the limited body of research which includes just 10 studies which have previously explored teachers' perceptions of engagement, yet only included surveys or interview data (cf. Berry, 2020; Cothran & Ennis, 2000; Fredricks et al., 2016b; Harris 2008; Jonasson 2012; Kelly et al. 2022; Melbourne Graduate School of Education, n.d.; Ravet, 2007; Zepke et al., 2014; Zyngier, 2007).

Indeed, a disconnect may exist between the behavioural, emotional, and cognitive needs of students and the strategies and supports that secondary teachers employ in the classroom. Goldspink et al. (2008) found that teachers' pedagogical approaches often do not align with their understanding of effective teaching and learning, their beliefs about how students learn, the importance they place on teacher-student relationships, and their understanding of students' backgrounds, needs, and interests. Given the significant impact of student engagement on academic outcomes and lifelong learning, gaining further insights into teachers' understandings of the dimensions of student engagement could inform professional development and teacher education programs, to support preservice and practicing teachers to enhance or refine their practice to consistently and effectively foster student engagement in the classroom.

Investigation of secondary teachers' perceptions of student engagement is limited and includes just five studies. To explore secondary teachers' understandings of student engagement, Cothran and Ennis (2000) examined the perspectives of teachers and students through observations and interviews involving teachers (n = 4) and students (n = 51) from three urban secondary schools in the United States. They discovered that teachers concentrated on barriers they believed hindered their ability to engage students, while students described their engagement levels as flexible and responsive to teachers' behaviours. Engaging teachers, according to students, showed care, communicated well, and were enthusiastic in presenting active learning opportunities. Similarly, Fredricks et al. (2016b) investigated how students and teachers in U.S. secondary schools conceptualised engagement and disengagement in science and maths. They conducted in-depth qualitative interviews with middle and secondary school teachers (n = 34) and students from year 6 to year 12 (n = 106). The interview transcripts were coded for the three dimensions of engagement (behavioural, emotional, and cognitive), supporting the multidimensional conceptualisation of student engagement. Using this data, they developed a new student engagement self-report measure for science and maths, adding social engagement as a fourth dimension based on their findings, suggesting that research should also include social indicators of engagement.

Of these limited studies, three were conducted with Australian secondary teachers. Zyngier (2007) explored teaching strategies that engage students across various learning areas through semi-structured interviews with year 7 teachers (n = 9) and focus group interviews with three to five students from each class over one school year. He proposed that a resistant and empowering pedagogy could redefine student engagement to better support both social justice and academic achievement. Harris (2008) conducted a phenomenographic study to explore teachers' (n = 20) conceptions of student engagement in an Australian secondary school using qualitative semi-structured interviews. She identified six distinct ways that teachers understood student engagement: Behaving, Enjoying, Being motivated, Thinking, Seeing purpose, and Owning. Although Harris' research does not frame student engagement as a tripartite construct, it revealed that teachers have varied understandings of student engagement, a finding consistent with the current research. Kelly et al. (2022) examined teachers' (n = 223) perceptions of the importance of teaching strategies that support behavioural, emotional, and cognitive engagement. They used a mixed-methods questionnaire, and the quantitative results indicated that female participants prioritised strategies supporting behavioural and cognitive engagement, while those in leadership roles placed more importance on strategies that fostered emotional and cognitive engagement. Additionally, a negative correlation was found between the importance teachers placed on strategies for behavioural and cognitive engagement and their schools' ICSEA value, which measures socio-educational advantage in Australian schools. These studies highlight the important role that secondary teachers play in student engagement, underscoring the significant impact of their behaviours and decisions on student engagement within the learning environment (Berry, 2020; Harris, 2011).

The current article includes data from a self-reported questionnaire, classroom observations and semi-structured interviews to provide insight into how secondary teachers' disparate prioritisations of strategies to support student engagement align with their actual classroom teaching practices using descriptive analysis and qualitative data. The inclusion of classroom observations in the exploration of teachers' diverse understandings of student engagement is a novel contribution to the literature which has the potential to inform how student engagement is addressed in Initial Teacher Education (ITE) and ongoing professional learning for practicing teachers.

Methodology

Mixed methods are promoted as a practical approach for incorporating multiple methodologies to address a research question without constraining the researcher (Edmonds & Kennedy, 2013; Johnson & Onwuegbuzie, 2004). Researchers adopting mixed methods place emphasis on the research questions to inform methodological decisions about "what works" and believe in using multiple methods to answer these questions (Creswell, 2012; Plano Clark & Ivankova, 2016, p. 199). Johnson and Onwuegbuzie (2004) argue that methods should "follow research questions in a way that offers the best chance to obtain useful answers... [as] questions are best and most fully answered through mixed research solutions" (p. 17). Therefore, mixed methods research involves the collection, analysis, and interpretation of both quantitative and qualitative data (Edmonds & Kennedy, 2013) as either or both methods can be valuable, depending on the research question and the study's current phase (Tashakkori et al., 1998). The use of a combination of methods leverages the strengths of each approach to produce credible and robust findings (Plano Clark & Ivankova, 2016) and to provide a deeper understanding of complex human experiences (Greene & Hall, 2010).

In the current investigation, this includes the collection, analysis, mixing and interpretation of multiple forms of data from an online questionnaire, interviews, and observations. This approach is appropriate as the research question outlined above requires more than just the collection and analysis of quantitative data or qualitative data. The question necessitates the application and combination of quantitative and qualitative methods, which provides a more profound insight and understanding of the research question than either single method could provide alone (Creswell, 2018; Creswell & Plano Clark, 2007). Such an approach results in the development of a more complex overview of the situation (Creswell, 2012), as well as allowing for the development of a detailed view of participant understandings in the qualitative data (Creswell, 2014).

While extensive quantitative research investigating student engagement has established that it is an important area of educational research, quantitative findings alone cannot explain participants' understandings, as it is the qualitative data that provides insight into participants' conceptualisations in their own words (Harris, 2008). Azevedo (2015) advocates for student engagement researchers to continue integrating methodologies to record and describe student engagement, as using multiple methods leads to a better understanding of the research questions. A mixed methods approach is highly suitable for the current study because quantitative and qualitative research methods "are complementary, not competing, approaches" (Field, 2013, p. 3), that is, a mixed methods approach is inherently able to assimilate quantitative and qualitative methods into a more holistic approach that is complementary to each. The strengths of utilising a mixed methods approach in the current study include the opportunity to make use of words and narrative to add meaning to numbers, the discovery of insights that might have been missed if the researcher was limited by a single approach, the selection of the most appropriate method to answer the research question, and the mixing of methods to provide stronger conclusions through corroborated findings (Johnson & Onwuegbuzie, 2004).

Limitations to conducting mixed methods research include that the intentional and systematic implementation of mixed methods in education is still not common practice, as while the research questions should guide the selection of methods, there is a tendency amongst mixed-methods researchers to select their method without further consideration of why (Rapanta & Felton, 2019). Further, there is no consensus amongst researchers that the value of mixing data from multiple sources is in confirming our understanding of the world, rather, the value is in "the 'security' that using multiple methods provides us by giving a fuller picture of phenomena, not necessarily a more certain one" (Ritchie et al., 2014, p. 39).

While findings from multiple sources may complement and enhance each other to provide greater confidence in the conclusions, some findings may conflict (Johnson & Onwuegbuzie, 2004; Ritchie et al., 2014). However, it is important to acknowledge that conflicting findings can provide the researcher with important insights. This highlights an important purpose for using mixed methods to support the current investigation, because ultimately, "the goal of mixing is not to search for corroboration but rather to expand one's understanding" (Johnson & Onwuegbuzie, 2004, p. 18). Relevant to the current study, "the different dimensions we seek to research may exist in 'messy tension' rather than in a neatly integrated or triangulated fashion" (Ritchie et al., 2014, p. 42). This idea of a "messy tension" provides insight into the complex nature of the field of student engagement and is therefore highly relevant to this study which sought to explore the alignment between teachers' understanding and their practice.

Methods

To ascertain secondary teachers' understandings of student engagement, self-reported data was obtained through a questionnaire and interviews. Additionally, the study sought to establish if there was alignment between teachers' understandings of student engagement and the pedagogies they implemented in their classrooms. Therefore, classroom observations were also incorporated to provide insight into participants' teaching practices and build on the findings from the self-reported data. Materials, participants, procedure and analysis are detailed in this section.

Materials

As there is no existing measure to evaluate teachers' understandings of teaching strategies in alignment with the tri-dimensional framework of student engagement, a new questionnaire was created for the study. This questionnaire incorporated teacher qualities, behaviours, and teaching strategies from Pedler et al.'s (2020) proposed model of engagement which includes teaching strategies informed by research for teachers to support each dimension of students' engagement (Figure 1).

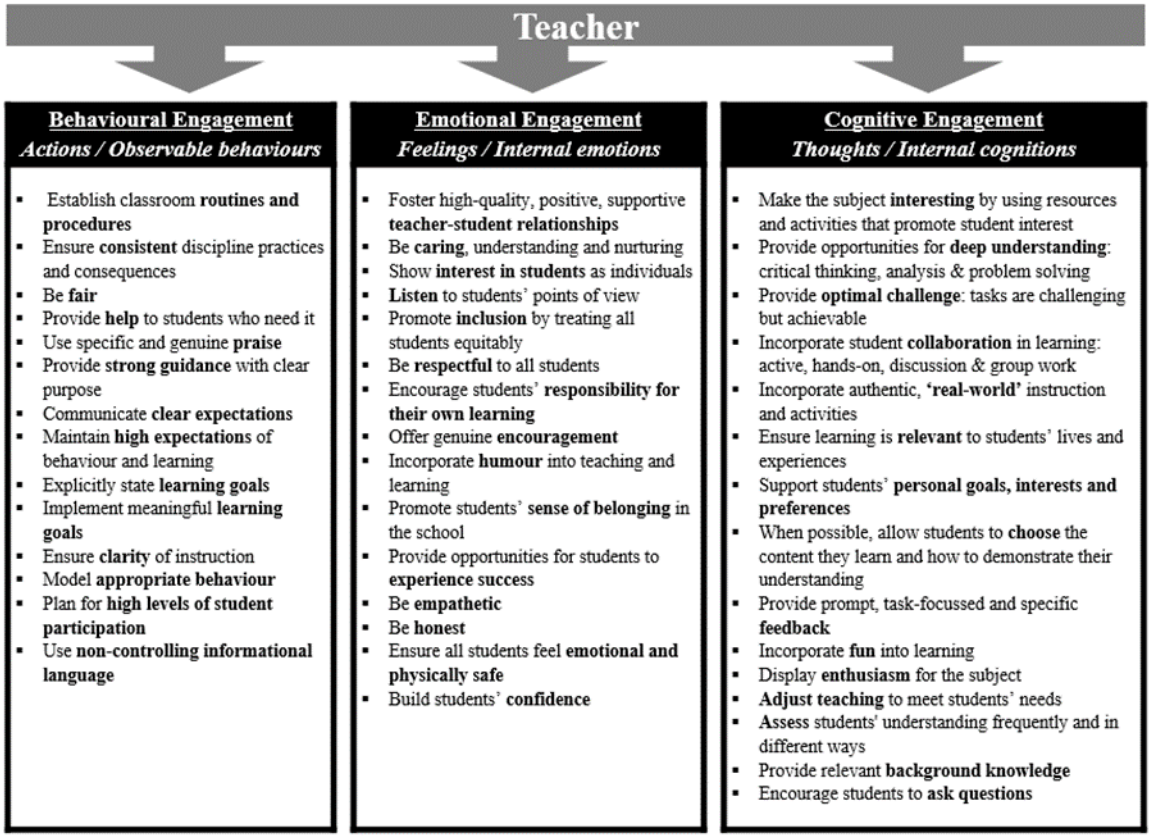

Figure 1: Model depicting the teacher's role in promoting each dimension of student engagement (Pedler et al., 2020)

The questionnaire began with three open-ended questions to gauge teachers' perceptions of student engagement: "In relation to the classroom, what does 'student engagement' mean to you?", "Describe a student with high engagement in the classroom," and "Describe a student with low engagement in the classroom." Following this, participants responded to 28 items (teaching pedagogies, teacher qualities, and behaviours) by indicating their agreement with the statement "I believe this item is important for teachers to promote student engagement in the classroom" on a 7-point Likert scale (1 - not at all important, 7 - extremely important) (cf. Kelly et al., 2022). The questionnaire also gathered participant demographics, including age, gender, teaching experience, number of students at the school, and the school's ICSEA value. Before formal data collection, the questionnaire underwent a pilot study and cognitive interviews. The mixed methods questionnaire was used for larger scale quantitative data collection (cf. Kelly e al., 2022). The current article presents analysis and findings using the quantitative data from questionnaires completed by the six participants taking part in the classroom observations and interviews in the current study to explore the research question: How do secondary teachers' understandings of student engagement align with their classroom practice?

An observation protocol checklist including the practices listed in the Pedler et al. (2020) model of engagement was used in classroom observations. The proforma included practices listed under three headings (i.e., behavioural, emotional and cognitive engagement). Next to each strategy the observer could record if the practices were observed, and record examples of the strategies teachers implemented during their lesson(s).

Participants

The current article includes data from classroom observations (n = 6), semi-structured interviews (n = 6), and a questionnaire (n = 6). Participants for the classroom observations and interviews were current secondary teachers from four different secondary schools in New South Wales and Queensland, Australia (three state schools and one independent school). Table 1 provides an overview of participant demographics.

Participant	*No. of lessons observed*	*Year group(s) observed*	*Subject*	*Gender*	*Age Range*	*Teaching Experience*	*Highest Teaching Qual.*	*School ICSEA value*
1	1	11	English	F	50-59	31+ yrs	BEd	951-1000
2	2	9 & 10	Hospitality	F	40-49	26-30 yrs	BEd	951-1000
3	2	8 & 9	Science	F	30-39	16-20 yrs	BEd	951-1000
4	1	7	Geography	F	50-59	26-30 yrs	BEd	951-1000
5	2	7 & 12	Maths	M	50-59	26-30 yrs	MEd	850-900
6	2	7 & 11	History	F	40-49	16-20 yrs	BEd	1101-1150

Table 1: Participant demographics

Procedure

This mixed method study incorporated multiple methods of data collection including an online questionnaire, observations and semi-structured interviews. Prior to data collection, ethics approval was obtained from the university, and the relevant education authorities in both New South Wales and Queensland. Written permission was obtained from the school principal for the participant to be observed and for the researcher to conduct the research on the school site.

The online questionnaire (n = 6) was emailed to participants for completion prior to observations and interviews taking place. The email included the Information Sheet for the study and ethics approval for their state. Observations (n = 6) were completed in term 2 of the school year in the four secondary schools. Participants were observed while instructing one or two classes, depending on their availability. A date for the observation and interview was arranged with each participant, with the interview taking place on the same day after the observation(s). Consent forms were completed by the participants and returned to the researcher prior to observations taking place. Observations lasted for the duration of a single lesson. The researcher completed each observation using an observation protocol checklist based on the model from Pedler, et al. (2020). The researcher was seated at the back corner of the classroom for each observation and did not interact with the teacher or students during the observation.

Table 2 includes contextual information for each of the observations, including the year group, the period observed, the focus of the lesson / topic, the length of the lesson and the number of students present. The focus of the observations was the teaching strategies the participants implemented to support student engagement. With the small sample of

participants, the intention was not to draw conclusions regarding the difference in strategies implemented in relation to teaching areas.

Participant	*No. of lessons observed*	*Year*	*Subject*	*Period*	*Lesson focus*	*Length of lesson (mins)*	*Number of students*
1	1	11	English	1	Completing an assessment task creating a multi-modal presentation in a computer lab.	70	23
2	2	9	Hospitality	2	Acting on written feedback the teacher had provided to a draft assessment task on the computers in the library.	70	18
		10	Hospitality	4	Cooking demonstration in the cooking room.	70	12
3	2	8	Science	3	Modelling how to highlight key terms in a rational, students writing their own rationale in computer room.	70	28
		9	Science	2	Modelling reading science text in a science classroom.	70	18
4	1	7	Geography	2	Review of previous lesson when the teacher had been absent.	70	18
5	2	7	Maths	2	Lesson on angles.	60	11
		12	Maths	1	Arithmetic progressions supporting students to complete questions from their textbooks.	60	16
6	2	7	History	4	Review of previous lesson in preparation for an exam.	55	20
		11	History	2	Planning for research essay on Mabo.	55	8

Table 2: Information about lessons observed with each participant

Semi-structured interviews (n = 6) took place on the same day as the classroom observations, in a location on the school site selected by the participating teacher. Interviews were scheduled to take 20-30 minutes. All interviews were recorded, transcribed and emailed to participants for member-checking to ensure the transcripts were reliable records of the conversations.

Analysis

Descriptive analysis was used for questionnaire responses to establish the practices on which participants placed the most importance in line with the three dimensions of student engagement (behavioural, emotional, and cognitive). The observation proforma was used for all classroom observations and included the items from the model of engagement from Pedler et al. (2020). During the observation, the principal researcher recorded which practices were used in the lesson with notes to record examples of the practice. For example: the teacher greeting students at the door as students lined up outside was coded against “classroom rules and procedures”; the teacher providing clear, calm instructions to the students when explaining a task was coded as “ensure clarity of instruction”; the teacher patiently listening to students opinions in a class discussion was coded for “listen to students points of view”; the teacher relating the topic to real-life examples was coded as “ensure learning is relevant to students’ lives and experiences”, and so on. For the purpose of analysis, the practices from Pedler et al.’s (2020) model of engagement were the focus. Teachers may have incorporated multiple strategies that align with a particular practice from the model, though the focus in this analysis is on the variety of practices from the model that were incorporated in the secondary teachers’ lesson.

The interview transcripts were coded deductively using the tri-partite framework outlined in the Pedler et al. (2020) model (Figure 1). Each teaching strategy or description of

an engaged student mentioned by participants was coded, as well as the dimension with which this strategy aligned. For example, “they feel safe” was coded for the strategy from the model “Ensure all students feel emotionally and physically safe” and for “emotional engagement". NVivo 12 Plus was utilised for coding and analysis. Coding was discussed with the research team throughout analysis to ensure the code book accurately captured all aspects of teacher responses.

The analysis explored participants’ dimensional preferences through the self-reported data in the online questionnaires, the practices observed in the classroom and the discussion of understanding and practice in the interviews. These analyses found the participants could be categorised into three groups: those whose professed understanding of engagement aligned with their classroom practice; those who changed their practice to suit the needs of the class; and those whose professed understandings of student engagement were different to their practice. The descriptive analysis and qualitative data that provides insight into this analysis is elaborated below. It is recognised that these findings are based on a sample size of six secondary teachers that were observed one or two times, therefore, while the findings provide insight into the potential differences in secondary teachers’ understanding and classroom practice, more research is required to draw more certain conclusions.

Results

The use of classroom observations (n = 6) provided an opportunity to directly compare participants’ self-reported beliefs from the online questionnaire and interview with their actual teaching practices. The aim of the descriptive analysis in this section is to offer a means by which to compare the importance that teachers placed on the strategies they use to support engagement as provided in their self-reported questionnaire responses, with their actual observed implementation of teaching strategies in the classroom.

The Importance Teachers Placed on Strategies that Support Each Dimension of Student Engagement

This section presents results of the descriptive analysis of data from the questionnaire. Using a scale ranging from 1 - least important to 7 - most important, Table 3 depicts the average (M) importance each participant placed on engagement strategies as they align with each dimension of student engagement. Note that participants rated strategies that support students’ behavioural or emotional engagement as the most important, or equal to the most important, for improving student engagement, and that all participants rated strategies that support students’ cognitive engagement as less important than strategies that support the other two dimensions. This depicts the various ways that participants prioritise teaching strategies as they align with the dimensions of student engagement.

			behavioural		emotional		cognitive	
Participant	Gender	ICSEA	*M*	*SD*	*M*	*SD*	*M*	*SD*
1	F	951-1000	7.00	*0.00*	7.00	*0.00*	6.18	*0.57*
2	F	951-1000	6.22	*0.42*	6.25	*0.43*	6.18	*0.83*
3	F	951-1000	6.11	*0.31*	5.75	*0.66*	4.91	*1.08*
4	F	951-1000	7.00	*0.00*	7.00	*0.00*	6.91	*0.29*
5	M	850-900	6.44	*0.50*	6.13	*0.78*	5.82	*0.72*
6	F	1101-1150	6.11	*0.57*	6.75	*0.43*	5.91	*0.29*

Note: dark grey = highest average, light grey = lowest average

Table 3: Participant Questionnaire Responses by Dimension

Strategies Observed as Teachers Support each Dimension of Engagement

Table 4 depicts the number of strategies that the researcher observed teachers implement in each lesson observation, as they align with each dimension of student engagement. The table does not show the frequency with which individual strategies were observed in the lesson, but instead provides an overall tally of the *different* strategies observed using the observation protocol checklist i.e., the number of strategies used that support each dimension of engagement in line with Pedler et al.'s model in Figure 1. Four of the participants (2, 3, 5 & 6) were observed twice and this is listed as "observation 1" and "observation 2" next to those participants' numbers in this table. Participants 1 and 4 were observed once. As shown in Table 4, the majority of teachers implemented the widest variety of teaching strategies (highlighted in dark grey) when supporting students' behavioural engagement and the least variety of teaching strategies (highlighted in light grey) to support students' emotional engagement, providing some initial insight into the variation in teachers implementation of teaching strategies as they support dimensions on engagement in the classroom.

Additionally, these observations demonstrate that, of those teachers that were observed twice, two did *not* change the teaching strategies they incorporated with students despite the change in year levels and abilities (participants 2 & 3), while two teachers *did* change their teaching strategies when teaching different year levels and abilities (participants 5 & 6). This suggests that some teachers change their approach to accommodate contextual factors such as age and students' needs to support student engagement, while other teachers maintain a similar approach for all classes.

Participant	Year	Gender	ICSEA	Behavioural	Emotional	Cognitive
1	11	F	951-1000	6	6	3
2 *(observation 1)*	10	F	951-1000	7	5	5
2 *(observation 2)*	9	F	951-1000	7	2	3
3 *(observation 1)*	9	F	951-1000	8	3	7
3 *(observation 2)*	8	F	951-1000	6	2	3
4	7	F	951-1000	10	5	5
5 *(observation 1)*	12	M	850-900	4	3	7
5 *(observation 2)*	7	M	850-900	1	4	1
6 *(observation 1)*	11	F	1101-1150	1	1	5
6 *(observation 2)*	7	F	1101-1150	4	0	3

Note: dark grey = highest number of strategies, light grey = lowest number of strategies

Table 4: Strategies Observed as they Support each Dimension of Engagement

Comparison Between Self-Reported and Observed Data

It is the comparison of the self-reported (Table 3) and observational (Table 4) descriptive analysis of the quantitative data on an individual level that presents results of interest in regard to the research question (How do secondary teachers' understandings of student engagement align with their classroom practice?). Table 5 depicts the dimensions that participants placed the most and least importance on, compared to their actual classroom

practice (collated and summarised from Tables 3 and 4). This data demonstrates that for half of the participants (n = 3) there is alignment between the strategies / dimensions that they believe are most important, and their actual classroom practice (i.e., these participants consistently implemented more strategies aligned to the dimensions they placed the most importance upon, and less strategies aligned to the dimensions they placed the least importance upon). However, for the remaining participants (n = 3), there exists differences between the importance they placed on strategies / dimensions in their self-reported data and in their actual teaching practice (participants 2, 5 and 6). These participants placed the highest or lowest importance on strategies / dimensions in their self-reported data that is at odds with their actual classroom practice (i.e., they implemented less strategies that aligned to the dimensions they placed the most importance upon, and more strategies aligned to the dimensions they placed the least importance upon).

			Most important/implemented		Least important/implemented	
Participant	Gender	ICSEA	Self-reported	Observation	Self-reported	Observation
1	F	951-1000	beh., em.	beh., em.	cog.	cog.
2	F	951-1000	em.	beh.	cog.	em.
3	F	951-1000	beh.	beh.	cog.	em.
4	F	951-1000	beh.	beh.	cog.	em., cog.
5	M	850-900	beh.	cog.	cog.	beh.
6	F	1101-1150	em.	beh.	cog.	em.

Note: Participants with consistency between self-reported data and observed practice highlighted in light grey

Table 5: Summary of Participants Self-Reported Data and Observational Data by Dimension

The variations between self-reported and observational data raise questions about the possible causes for differences between understanding and practice for some teachers, including the degree to which contextual influences may contribute to such differences, thus qualitative analyses are provided below to elaborate these results, prior to discussion.

It was found that the alignment between understanding and classroom practice for the participants fell into three categories. The first category is defined by classroom practice that aligns with the strategies and dimensions prioritised as being important to support student engagement (i.e., participant 4). The second category is the secondary teachers who change their teaching to suit the class (i.e., participants 5 & 6). The third category are the secondary teachers who prioritised strategies and dimensions to support student engagement that do *not* align with their classroom practice (participants 1, 2, & 3). These categories will now be addressed in further detail.

Teachers Whose Understandings do Align with Practice

The first category represents secondary teachers who *do* translate their understanding and beliefs around student engagement into actual classroom practice, as demonstrated in the classroom observation for participant 4. In the class observed, students were on a differentiated curriculum, many students had experienced trauma, and most students were working multiple year levels below their age. In her questionnaire responses, and again in her interview, this teacher identified strategies that support students' emotional and behavioural engagement as being more important than strategies that support students' cognitive engagement.

> *Then from those two [emotional & behavioural], the third one [cognitive] will flow… That [cognitive] won't happen unless you have this [emotional]… Kids don't do deep understanding until they feel safe... Kids won't challenge themselves and have a go until they feel safe. (OI4)*

Classroom observation demonstrated that this teacher's prioritisation of strategies that support students' emotional and behavioural engagement was in agreement with the teaching strategies, resources, and the classroom environment created by this teacher, with a prioritisation on building and maintaining supportive teacher-student relationships and support for students' behaviour clearly evident. For participant 4, there is a clear alignment between how she talked about supporting student engagement in the classroom and her actual classroom practice; "it's about building relationships with kids. Knowing those kids, setting up routines so that they feel part of the classroom". In her teaching context, students' "social and emotional skills are so low, it's extremely difficult. They don't get along with each other" so in her opinion, "there's no good putting them in a situation where they're going to fail to begin with", such as setting challenging cognitive tasks. She believed strongly in teacher / student relationships because "if you don't have relationships with kids, you can't teach them. You can talk at them, but you will never teach them until you're connected to them". A clear prioritisation of strategies that support her students' emotional and behavioural engagement in their learning were consistent across her quantitative responses, classroom practice and interview when discussing strategies and the dimensions of student engagement.

Teachers who Change their Teaching Practice to Suit the Class' Needs

The second category represents participants who vary the strategies they implement to support student engagement to suit the class situation. However, their underlying beliefs about what is most important to support engagement remains the same, as "there is some interchangeability [with strategies to support engagement] that goes depending on the characteristics of your class" (Participant 6). This seems to represent a more context-driven relationship between teachers' understanding of student engagement and strategy application, as demonstrated in the classroom observations of participants 5 and 6. These participants taught in very different socio-economical contexts, involving students from quite different backgrounds. Although both teachers held a distinct understanding of how to promote student engagement, each varied their actual strategies depending on the needs of their class within the specific situation surrounding a lesson.

For example, participant 5, who taught in a low socio-economic area, believed strategies that support students' cognitive and emotional engagement were more important than those that support students' behavioural engagement. He believed that "if these two are done [cognitive & emotional engagement], then this [behavioural engagement] is better…. It becomes less of an issue". Indeed, "the relationship between the student and the teacher is very important… There's a mutual respect there and a like for each other and that, I think, can also help with engagement". In such a challenging teaching environment, participant 5 also stated that "even at my greatest teaching, the best lesson I could ever present, there will be times when I can't get the class engaged because of all the other things that are going on in their lives". This acknowledged the challenges of the teaching context for this participant and the impact of the socio-economic background of the students on his selection of teaching strategies:

> *We're obviously in a very low socio-economic area here. A lot of these kids have huge problems at home. If they're worried about whether there is going to be*

> *food on the table when they get home, if they are worried about 'Has dad been arrested?' If they are worried about, 'Am I going to be staying with Nan tonight because mum is going to be drunk?', or something like that, it's going to distract from what they can do. (OI5)*

In this respect participant 5 acknowledged the diverse challenges faced by his students and considers this in his delivery of content, thereby adjusting his teaching to cater for the particular needs of his different classes. This is clearly evident in an observation of his year 7 class, where the participant continued to present a variety of activities to interest students (cognitive engagement) and build relationships with them (emotional engagement), rather than take an authoritarian approach to unsuitable behaviour despite consistent interruptions to the lesson. In contrast, in the observation of his year 12 class, comprised of students he has taught continually for four years, he described relationships as 'solid', and respect was noticeably evident. Therefore, his focus on supporting students' cognitive engagement by challenging them, getting them to think critically and expressing his enthusiasm for the subject did appear to successfully engage students. He explained that "I can demand engagement at any time, and I'll get that engagement because I know them very well and they know me. They're very bright kids and achieving well". Participant 5 made it clear that supporting students' cognitive and emotional engagement, by supporting student interests and accommodating their emotional needs in the classroom, was his priority in all classes, as he believed this is the best way to support the variety of students' needs within the low socio-economic context of his secondary school.

Similarly, participant 6 held underlying beliefs about what was most important to support student engagement, however unlike participant 5, she taught in an independent secondary school in a high socio-economic area. This teacher believed that:

> *The relationships you have with students are key, and they're building blocks to all the next stages that follow it... if you don't have those things happening at a classroom level, I think students will not be receptive or be as engaged in whatever learning is being asked of them afterwards. (OI6)*

Participant 6 indicated in the questionnaire and interview that she considered supporting students' emotional engagement as the most important, however, these strategies were actually the least evident in her classroom practice during observations. Indeed, in the observation with her year 7 class, she focussed on strategies to support students' behavioural engagement and justified this as being necessary in relation to the age of the class and also an upcoming assessment taking place the next day:

> *Where they're young and they need much more support with their behaviour. Sometimes you have to address those needs before you can get them into the zone of thinking analytically and critically and problem solving and going into activities that are challenging for them. (OI6)*

Despite having the underlying belief that strategies which support students' emotional engagement are the most important, for that particular lesson the teacher considered it more imperative that students understood the routines and requirements of the upcoming assessment. Conversely, with her year 11 class this teacher focussed on strategies to support students' cognitive engagement, because:

> *They were at a point where I didn't need to address their emotional needs too much … so we got right to the heart of the task and the task was to challenge their thinking to get them feeling more confident as they're about to embark on an independent research task… So for today in the 11s, that [cognitive engagement] was definitely the target. (OI6)*

These observations indicated that, despite the underlying belief of participant 6 that supporting students' emotional engagement with strong teacher / student relationships was

fundamental to students' further engagement, in individual lessons she made a choice to focus on other dimensions of engagement for a specific purpose to support her students. Thus, although both participants 5 and 6 maintained strong beliefs about which strategies / dimensions are most important to support student engagement, they could also explain why and how the use of other strategies / dimensions may be necessary to support student engagement in light of the class demographic, age or aims of a lesson.

Teachers Whose Beliefs do not Align with their Practice

Finally, three of the participants fell into the category of teachers for whom there exists a difference between their prioritisation of strategies and dimensions that support student engagement, and their actual teaching practice. Importantly, this difference may be influenced by the teaching context or demographics of the class / school, or school policies that may be at odds with teachers' beliefs about what student engagement should look like in their classroom.

For participant 1, her responses in the questionnaire and her teaching practice did align (i.e., strategies that support behavioural and emotional engagement are more important than cognitive engagement). However, this prioritisation of dimensions is at odds with how she talked about engagement and prioritised dimensions of engagement in the interview, in which she explained:

> *I think if you can sort them [emotional and cognitive engagement], this one [behavioural engagement] comes naturally. The behaviour minimises if the kids know that you care about them and if they're engaged… Yeah, this [behavioural engagement] normally takes care of itself if you've got the other two sorted. (OI1)*

Participant 1 believed she had implemented the most strategies to support students' cognitive engagement in the observation, "this morning was probably more about the cognitive and the behaviour", when in fact cognitive engagement was the dimension for which the least number of strategies were evident in her teaching practice. She explained that "I've worked hard with those kids and we know each other well, [behaviour] is generally not an issue". During the observation, students needed consistent support for their behaviour throughout the lesson, and hence, strategies that supported behavioural engagement and emotional engagement were in fact the most evident in the lesson.

In the case of participant 2, a greater difference was apparent between the strategies and dimensions she professed to place the most importance on and her actual classroom practice. For example, in her interview participant 2 placed high priority on supporting students' emotional engagement, "I think you need to do this [emotional engagement] first, before you get to that [cognitive engagement]. If you don't have this [emotional engagement], I don't know how you do this [cognitive engagement]". In contrast to her professed prioritisation of emotional engagement, classroom observations revealed an emphasis almost entirely on students' behavioural engagement. Of interest, the participant indicated a concern with certain challenges due to the school's demographic, stating that students "are going to think of education a certain way in this demographic, that's also [influenced by] the people in their life outside of education, how they think and they talk about it as well". She also described some of the strategies / dimensions being explored as part of this investigation as challenging, specifically, enhancing students' cognitive engagement: "I find this one [cognitive engagement] quite threatening… Critical thinking, analysis and problem solving". The student demographic and the participant's self-efficacy to implement certain teaching

strategies may explain the focus on strategies that support behavioural engagement in her teaching practice.

Finally, participant 3 prioritised behavioural engagement in her questionnaire responses and her classroom practice, however, stated that cognitive engagement was the most important when talking about student engagement in the interview. Additionally, she did not consider consciously planning to include strategies to support students' emotional engagement as a priority.

> *I guess, I don't have to think about, oh, 'Am I doing that [emotional engagement]?' because I think I just do. Like, when you walk past kids in the playground, and you're saying, 'Hi. How are you going?'... Whereas these things [behavioural and cognitive engagement], they're more of a conscious thing you can really make sure you're doing. (OI3)*

Participant 3 did not change her teaching strategies for different class contexts, such as her advanced year 8 class and her challenging year 9 class who received more-or-less the same approach (a focus on strategies that supported students' behavioural engagement), despite the varying needs of students in those classes. The participant explained that "there are a lot of students in there who are often on suspensions or behaviour cards and that kind of thing. I guess, my number one thing to win them over is rapport". Though for this teacher, discussion of rapport and support for emotional engagement was at odds with her practice, as strategies that foster students' emotional engagement were the least prevalent in both observations. In the case of this participant, the challenges associated with student demographics may have influenced the strategies that she felt confident or able to actually implement in the classroom.

An additional contextual influence may also be present for participant 3, as the participant explains "all our PDs are about how to get students to meet criteria, which then reflects in grades. The grades reflect in the data. The data makes the school look good. That's what is being pushed from up top". Thus, what also seems to be influencing participant 3's strategy use is the tension between her beliefs about student engagement and school policy, wherein teachers can "talk" the school policy (i.e., cognitive engagement) but may not be able to enact it. Thus, this particular form of difference between professed understanding and applied strategy may be occurring because prioritising cognitive engagement does not align with her own understanding and / or beliefs about how to engage students.

The difference between teacher understanding and practice was evident when collating the quantitative data (questionnaire and observation) and the qualitative data (interview) for the six participants that took part in the observations and interviews. This process of analysis allowed for direct comparisons between the importance participants placed on strategies and dimensions of student engagement, the strategies they actually implemented in the classroom, and how they talked about student engagement in interviews. These different sources of information provide some insight into the relationship between understanding and practice for this sample of participants and demonstrated that for half of the participants (n = 3), their understandings of student engagement were different to their actual classroom practice.

Discussion

The current study found that some teachers do implement strategies that align with their prioritisation of student engagement, and some teachers prioritise a certain dimension of student engagement but will knowingly implement support from other dimensions in order to adapt their teaching to support students' needs. However, some teachers hold beliefs about

student engagement that do not align with their practice, indicating a difference between understanding and practice that warrants closer investigation, to be explored in this discussion.

A number of possible reasons for these differences emerged in the quantitative and qualitative data and will be explored here. These include possible diverse understandings of what student engagement is or how to implement strategies that support it in the classroom, and the impact of a low socio-economic student demographic on student engagement. It is assumed that no single reason accounts for all instances of difference between understanding and practice. It was found in data from the questionnaire, observations and interviews that some participants demonstrated a lack of alignment between what they said was important and what they actually did in the classroom. This finding suggests that some teachers may not have a clear understanding of which strategies actually align with their understanding of engagement, and possibly how to implement their chosen strategies in ways that effectively support the dimensions of engagement that they prioritise.

Teachers have influence over learning environments, content and pedagogy, and it therefore comes as no surprise that their choices in regard to these aspects of student learning impact significantly on student engagement and outcomes (Goldspink et al., 2008). Although research does outline pedagogical approaches teachers can implement to improve engagement, effective pedagogies that foster engagement are not always employed as part of teachers' actual classroom practice (Goldspink et al., 2008). In this respect, Goldspink et al. (2008) found that teachers' actions were often inconsistent with their theoretical understandings of effective teaching and learning. This was evident when comparing teachers' declared understanding of how students learn against their actual teaching practices, and the importance teachers placed on considering a student's background, needs and interests contrasted with the generalised approaches implemented in the classroom (Goldspink, et al., 2008).

Research that explores teachers' understandings of student engagement and its relationship with the practices teachers choose to implement in the classroom is limited. To the authors' knowledge, this includes the study by Goldspink et al. (2008) undertaken in classrooms in South Australia and the current study. Thus, the current paper provides novel contributions for consideration regarding the implementation of effective pedagogies to support student engagement in secondary classrooms. The inclusion of self-reported qualitative data in interviews in this study provided valuable insights into participants' understandings of student engagement and their practices. This input from practitioners is often missing from existing student engagement literature, the very people who make daily pedagogical choices that influence students' engagement in the classroom (Smyth et al., 2008). This insight is important as teachers' perceptions of student engagement and their prioritisation of strategies that support its dimensions may be synonymous with their selection of teaching strategies in their day-to-day practice.

It was also found that participants rated strategies supporting students' behavioural and emotional engagement as the most important, while strategies for cognitive engagement were rated as less important. In observed lessons, most participants used a wide variety of strategies for behavioural engagement but employed the least variety of strategies to support students' emotional engagement. These findings demonstrate the importance participants place on teaching strategies to support different dimensions of student engagement in comparison with the strategies they implemented in practice. Prior research supports the notion of secondary teachers holding disparate understandings of student engagement (Harris, 2008; Kelly et al., 2022). In the research examining secondary teachers' perceptions of engagement, teachers define student engagement in diverse ways and may place more importance on teaching strategies that support different dimensions of engagement (Cothran

& Ennis, 2000; Harris, 2008; Kelly et al., 2022), suggesting that teachers could focus on enhancing specific dimensions in their teaching practice to more consistently support student success (Wang & Eccles, 2011).

Few studies have examined secondary teachers' perceptions of student engagement (cf. Cothran & Ennis, 2000; Fredricks et al., 2016; Harris, 2008; Kelly et al, 2022; Zyngier, 2007). Of particular interest in relation to the current findings are the studies that investigated Australian secondary teachers' diverse understandings of engagement. Harris (2008) conducted a phenomenographic study investigating 20 secondary teachers' conceptions of student engagement in three Australian secondary schools. She identified six qualitatively distinct ways teachers understood student engagement: Behaving (student participation), Enjoying (student interest and enjoyment during participation), Being motivated (student motivation and confidence in their ability to succeed), Thinking (students' cognitive engagement with appropriately challenging work), Seeing purpose (students' purposeful learning to achieve goals), and Owning (students' responsibility for and valuing of their own learning). Harris concluded that secondary teachers hold varied understandings of student engagement, with some viewing it simply as participation in activities or schooling, while others recognise the complex nature of engagement and its connection to learning.

Kelly et al. (2022) investigated 223 Australian secondary teachers' understandings of student engagement and the importance that they placed on strategies to support student engagement in the classroom. The quantitative data from the mixed methods study revealed that female participants rated pedagogies supporting cognitive and behavioural engagement significantly higher, while school leaders prioritised pedagogies supporting cognitive and emotional engagement. These findings suggest that secondary teachers' diverse understandings of engagement may be influenced by factors such as gender, leadership experience, and the socio-economic status of the school. The findings from these two Australian studies support the findings in the current paper, that Australian secondary teachers hold various views on student engagement and the pedagogies they believe best support it, providing new insight into which strategies teachers prioritise to support engagement, and why this prioritisation may or may not align with their classroom practices.

In interviews in the current study, secondary teachers also discussed the impact a low socio-economic school demographic may have on student engagement. Some participants shared challenges they perceived in their teaching context due to the school's socio-economic background, and how this experience and knowledge may influence their choices in regard to supporting student engagement. Kelly et al. (2022) proposed that a school's socio-economic status may affect the engagement strategies that secondary teachers use, or believe they should use, in the classroom. The authors found a negative correlation between the ICSEA value (measure of socio-educational advantage) of a school, and the importance that participants placed on strategies that support students' behavioural and cognitive engagement. This correlation indicated that the lower a school's socio-economic background, the more importance secondary teachers placed on strategies that promote students' cognitive and behavioural engagement, and vice-versa. This suggests that a school's socio-economic background may be a contextual factor influencing secondary teachers' pedagogical decisions around how to implement support for student engagement. Qualitative findings included in the current article elaborated on this finding by demonstrating that some teachers believed that the student demographic significantly impacted their teaching and even limited their ability to successfully foster student engagement. One participant expressed that "even at my greatest teaching, the best lesson I could ever present, there will be times when I can't get the class engaged because of all the other things that are going on in their lives".

Goss et al. (2017) outlined that nearly one in four students in Australia are passively disengaged (i.e., compliant yet disengaged), resulting in consistent challenges for teachers as

they attempt to maintain and manage levels of student engagement in the classroom. In low socio-economic schools, the challenges for teachers to maintain levels of engagement exist on multiple fronts with additional stressors relating to student behaviour (Goss et al., 2017; Sullivan et al., 2014). As a consequence, secondary teachers may implement stricter disciplinary practices more frequently, which may in turn contribute to decreased achievement and an increase in student disengagement (Fredricks et al., 2016a). The current study has demonstrated that for some teachers, there exists a difference between their understanding and practice and a low socio-economic background of school and students may be a significant contextual factor that impacts on this difference.

Future Research

These findings have implications for practice in schools and future research. Researchers should continue to explore how and why teachers' understanding of student engagement may be different to their practice, with the aim being to establish approaches, relevant to teachers' contexts, to best support teachers to have the confidence and knowledge to implement effective pedagogies in the classroom to support all students. Differences between secondary teacher understanding of student engagement and their implementation of practices that support it may represent a disconnect between understanding and practice that could be supported via a number of different approaches, recognising that these differences in understandings, and between understanding and practice, may be influenced by personal experiences, and contextual factors such as school priorities or socio-economic influences. Such approaches should prioritise greater conceptual clarity of student engagement when it is introduced in ITE programs, in ongoing professional learning for teachers, guidance from school leadership in the area of student engagement, and collaborative teacher-led activities aimed at mentoring for increased student engagement to develop an understanding of their own beliefs about engagement and how to best support students in their teaching context. Helping teachers gain a deeper understanding of how teaching strategies align with each dimension of engagement, along with an awareness of their own potential bias toward a particular dimension in their practice, will enable them to develop effective and intentional methods that significantly boost student engagement in their classrooms. It would thus be beneficial for future research to further explore these prioritisations, and how these align with teaching practice and potentially specific areas of learning, to develop improved frameworks for enabling pre-service and practicing teachers to implement effective engagement strategies in their classrooms.

Limitations

The current study utilised an online questionnaire to establish the importance that teachers place on teaching strategies as they align with the tri-dimensional framework of engagement, outlined by Fredricks et al. (2004). This questionnaire was based on Pedler et al.'s (2020) model of teaching strategies that support the dimensions of engagement. Using an established scale to measure engagement may have attributed greater reliability to findings. However, while such scales exist to measure student engagement behaviours, there was no existing scale that could measure the importance teachers placed on strategies that support student engagement, hence, the original survey was deemed suitable for the current study. This study explored teachers' understandings of student engagement within a specific framework (behavioural, emotional, cognitive engagement), and it should be acknowledged

that socially critical scholars in the field may present alternative or competing positions. Surveys rely on self-reported data which may be prone to bias and could have been considered a limitation of the study, though the incorporation of interviews and classroom observations aimed to alleviated this. Finally, only one researcher observed the lessons in which participants taught. Ideally, a second researcher would have been present, or the lesson recorded, so that field notes and data from observations could be compared for inter-rater reliability. In future research, more than one researcher observing lessons or watching recorded lessons would increase reliability of study results.

Conclusion

Student engagement is a current and topical aspect of learning and teaching globally. It affects students' learning experiences and outcomes and is shaped by the classroom teacher. The data that has been gathered, analysed, and presented in the current article can inform current classroom practices, teacher professional development, and initial teacher education programs. This study confirmed findings in existing research that teachers hold disparate understandings of student engagement (Berry, 2020; Harris, 2011; Kelly et al., 2022) and that the alignment between teachers' understandings and practice may differ (Goldspink, 2008). This study also makes a novel contribution to the existing literature as it evaluated these understandings in using the tri-dimensional framework of student engagement (behavioural, emotional, cognitive), incorporating classroom observations to be able to draw comparisons between secondary teachers' self-reported understandings and their actual classroom practice.

In seeking to establish how teachers' understandings of student engagement align with their practice, the short answer may be, that for some teachers, their understanding and practice do differ. This is important because teachers' decisions and behaviours impact student engagement in the classroom. The teacher plays a pivotal role in creating a learning environment that fosters student engagement, so when there is a difference between their understanding and practice this may impact how effectively they can support students' behavioural, emotional or cognitive engagement. The findings indicate a need for further research to provide greater insight into the relationship between teacher understanding and practice, to help researchers and practicing teachers enhance student engagement in learning.

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