Preparing Pre-Service Teachers to Teach in Inclusive Classrooms: An Examination of

Variables Affecting the Enactment of Inclusive Practices

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Abstract

The introduction of government legislation and department of educational standards detailing the rights of all students (including those with a disability) to have access to education within regular schools and classrooms created a need to understand the process by which quality inclusive education environments could be fashioned.

Rationale: Classroom teachers have been identified as key stakeholders responsible for implementing inclusive practices in their classrooms, however, it was unclear how to prepare pre-service teachers (PSTs) to work in inclusive educational environments. For the purpose of this research, the Theory of Planned Behaviour (TPB) was used as a guide to understand the variables associated with PST preparedness for inclusion. The variables included: their beliefs about inclusive education (attitudes), their self-perceptions of competence (teaching efficacy) to teach in inclusive classrooms, their apprehensions (concerns) and willingness to teach in inclusive classrooms (intentions).

Aims: There were five major aims of the study. First, to affirm whether or not the 'preparedness' variables and the relationships between them were in line with the TPB. Second, to identify if a PST's intention to teach in an inclusive classroom could be predicted from the 'preparedness' variables (i.e. attitudes, teaching efficacy and concerns). Third, to understand the impact the inclusive education university Subject had on the TPB variables associated with inclusive practice. Furthermore, to understand if there was any differential impact relating to how the Subject's content was delivered (i.e. co-teaching or single-teacher model). Fourth, to investigate PSTs' perceived facilitators and barriers to teach in inclusive classrooms. Fifth, to identify if there was a significant relationship between PSTs' preparedness variables and their actual inclusive practices in the classroom.

Method: A pre-test/post-test quasi-experimental design was used to investigate the relationships between the key variables, predict intentions and to understand the impact of the

inclusive education Subject. Impact was determined by comparing the scores of each participant on measures of intentions, attitudes, teaching efficacy and concerns about inclusive education before and after the Subject using two different modes of delivery. Qualitative questions were included in the survey to examine the PSTs perceptions of facilitators and barriers to inclusion in their future classrooms. A small group (n=4) of PSTs who had attended the Subject were observed, using the Inclusive Practices Classroom Observation Schedule (IPCOS), for three one hour teaching periods each. These observations were undertaken to assess if their preparedness variables were related to their observable inclusive teaching practices.

Results: One hundred thirteen PSTs participated at pre-stage and 67 at post stage. The TPB was deemed a useful framework to investigate PSTs' intentions and associated variables. Additionally, intentions to teach in inclusive classrooms were significantly predicted at pre and post stages respectively. More specifically, standard regression analysis revealed that PSTs' attitudes were a significant predictor at both stages, while concerns were a significant predictor at pre-stage and teaching efficacy was a significant predictor at post-stage. Moreover, paired-sample t-tests indicated that participation in the Subject positively influenced PSTs' intention to teach within inclusive classrooms. To provide additional data regarding the impact of the Subject, thematic analysis of responses related to perceived facilitators suggested that, at post-stage, responses were often more specific and related to the content taught during the Subject. Also, the most common themes that could hinder or support inclusion were related to 'school-system' variables. Furthermore, while PSTs, who were observed in the classroom, demonstrated positive correlation between variables such as attitudes, efficacy and intentions with their inclusive teaching practices the relationships did not reach statistical significance between their scores on the IPCOS and intentions to teach in inclusive classrooms.

Conclusions: It was possible to predict PSTs' intentions to teach in an inclusive educational manner. Furthermore, the relationships between the key variables aligned with the TPB. Taken together, these findings imply that the TPB had some utility in understanding PSTs' preparedness for teaching in an inclusive manner. Additionally, the Subject delivery mode that included both practicing teachers and academics as presenters appeared to be more effective than the mode where only an academic was involved. In light of these conclusions, implications and recommendations are provided for policy makers, teacher educators and researchers to work towards the goal of aligning what is taught during teacher education and how PSTs enact inclusive practices in the classroom.

Thesis including published works declaration

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes one original paper published in a peer-reviewed journal. The core theme of the thesis was to understand the preparation of PSTs for inclusive education and to investigate the impact of the newly designed inclusive education Subject. The ideas, development and writing up of the paper in the thesis were the principal responsibility of myself, the student, working within the Education Psychology Activities Unit of the Faculty of Education under the supervision of Professor Umesh Sharma, Dr Brett Furlonger and Dr Christine Grove. The inclusion of co-authors reflects the fact that the work came from active collaboration between researchers and acknowledges input into team-based research.

In the case of *Chapter 3* my contribution to the work involved the following:

Thesis Chapter	Publication Title	Status *(published, in press, accepted or returned for revision, submitted)*	Nature and % of student contribution	Co-author name(s) Nature and % of Co-author's contribution*	Co-author(s), Monash student Y/N*
3	The inclusive practices of classroom teachers: a scoping review and thematic analysis	*Published*	*75%. Concept, data collection, analysis, writing drafts and preparing the manuscript for submission*	*1) Professor Umesh Sharma, concepts and editing input into manuscript 20%* *2) Dr Brett Furlonger, editing input for manuscript 5%*	*N*

I have not renumbered tables and figures in the published paper. However, in order to generate a consistent presentation within the thesis the first figure (separate from the published work) is labelled 'Figure I'. Thereafter, Arabic numerals are used to label the tables and figures.

Student signature: **Date: 09/12/2019**

The undersigned hereby certify that the above declaration correctly reflects the nature and extent of the student's and co-authors' contributions to this work. In instances where I am not the responsible author, I have consulted with the responsible author(s) to agree on our respective contributions.

Main Supervisor signature: **Date: 09/12/2019**

Acknowledgements

"Yet only through communication can human life hold meaning. The teacher's thinking is authenticated only by the authenticity of the students' thinking. The teacher cannot think for her students, nor can she impose her thought on them. Authentic thinking, thinking that is concerned about reality, does not take place in ivory tower isolation, but only in communication. If it is true that thought has meaning only when generated by action upon the world, the subordination of students to teachers becomes impossible." - Paulo Freire

Much like the findings of my research, completing a PhD cannot 'take place in ivory-tower isolation'. Without the support from my supervisors, colleagues, friends and family (and the support from the Australian Government Research Training Program Scholarship (RTP)), I could not have come as far as I have.

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Lastly, and most importantly, to my best friend and life-partner. Tash, I love and admire you! Thank you for putting up with me over the journey and being so patient. I am excited to see where life takes us and know that we can weather any storm together. Thank you!

Table of Contents

List of Tables

List of Figures

List of Appendices

List of Abbreviations

PST	Pre-service Teacher
TPB	Theory of Planned Behaviour
IPCOS	Inclusive Practices Classroom Observation Scale
DDA	Disability Discrimination Act 1992
DSE	Disability Standards for Education 2005
Disability Royal Commission	Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability 2019
AITSL	Australian Institute for Teaching and School Leadership
TEMAG	Teacher Education Ministerial Advisory Group
COAG	Council of Australian Governments
AEU	Australian Education Union
TQNP	Smarter Schools-Improving Teacher Quality National Partnership
ACARA	Australian Curriculum Assessment and Reporting Authority
AIS	Attitudes Towards Inclusion Scale
TEIP	Teacher Efficacy in Implementing Inclusive Practices scale
CIES	Concerns about Inclusive Education Scale
ITICS	Intention to Teach in Inclusive Classroom Scale
UNESCO	United Nations Educational, Scientific and Cultural Organisation

Chapter 1: Introduction

Rationale for the Study

While the philosophy underpinning the value of inclusive education is now widely accepted and legislation is in place to support the implementation of inclusive practices in Australia, it remains unclear how to efficiently implement these practices. The most critical aspect in this regard is how teachers should be prepared to teach in inclusive classrooms (Forlin, Chambers, Loreman, Deppler, & Sharma, 2013; Forlin, 2012a). The present study, therefore, examined what it means for PSTs to be prepared to work in inclusive classrooms and how best to meet the goals of inclusion through adopting innovative models of preparing teachers to teach in such environments.

Background

In Australia, while it is compulsory for students aged 6-16 to attend school, there was, prior to 1992, no mandate to provide education or to teach students with diverse needs within mainstream classrooms (Australian Legal Information Institute, 2009). In a bid to address unlawful discrimination based on one's disability, the Australian government passed the *Disability Discrimination Act 1992* (DDA) (Commonwealth Government of Australia, 1992). This act aimed to: eliminate discrimination against people with disabilities; to ensure that people with disabilities have the same rights to equality before the law as people without a disability; and to promote recognition and acceptance within the community of the principle that people with disabilities have the same fundamental rights as the rest of the community. The introduction of the DDA caused difficulties for teachers who struggled to balance their duty to provide a non-discriminatory educational setting and their ability to plan for and meet the needs of students with atypical learning needs and/or challenging behaviours.

The *Disability Standards for Education 2005 (*DSE*)* (Commonwealth Government of Australia, 2006) were published to provide further guidance for teachers on how best to implement the DDA standards. The DSE helped to clarify the obligations of education providers to ensure that education would be accessible to all students with disabilities. Teachers were therefore required to make 'reasonable adjustments' to their programs so that all students would have access to the regular curriculum as well as the opportunity to receive instruction tailored to their individual learning needs. The standards included:

- Enrolment and admission – a person with a disability must be able to seek admission and receive advice and support on the same basis as a person without a disability and without discrimination.

- Participation – students with a disability must be able to participate in courses or programs without discrimination.

- Curriculum development, delivery and accreditation – all students must be able to participate appropriately in learning experiences.

- Provision of student support services – a student with a disability must have access to services other students use or, if necessary, specialised services.

- Harassment and victimisation – processes must be developed to prevent harassment or victimisation of students with a disability.

The recent *Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability* (Disability Royal Commission) highlights education and learning as key areas of inquiry (Disability Royal Commission, 2019). It is proposed that education and learning represent features of society that seeks to include people with disability as well as a context that has the potential to expose students to discrimination and exclusion. This public

inquiry was founded on two key principles including: a human rights approach to education and an intersectional approach which suggested that there are multiple factors that influence students with disability (e.g. cultural background, gender identity, language). The report was collaboratively prepared by representatives from community, disability organisations and education academics. The report outlines a number of barriers to inclusive education that continue to hinder the realisation of inclusion education. Workforce capability issues represent a prominent barrier that may impinge on the education of students. A key feature of the Royal Commission report was that the capability and skills of teachers is seen as critical to providing quality and inclusive education to students with disability. Furthermore, it was suggested that teachers require quality education to be able to implement inclusive education. Taken together, these suggestions imply that teacher educators should be justifying their processes and systematically evaluating how teachers are taught about inclusive education.

Consequently, teacher educators have felt obliged to prepare PSTs to work in an inclusive educational model. Accordingly, the current research examined the preparation of PSTs for working within inclusive education settings. First, the utility of Ajzen's (1991) evidence-based theory (The Theory of Planned Behaviour-TPB) was assessed to establish if it was a useful framework to investigate PST preparedness for working in inclusive educational settings. Second, the trial of the collaboratively developed (i.e. by teacher educators and practising classroom teachers) university Subject to promote PST intentions to teach within inclusive classrooms was measured.

Theoretical Framework

The present research is based on two key assumptions:

1. In order for PSTs to implement high quality inclusive teaching practices (i.e., the ability to plan and account for individual learning needs), their intention to teach in an inclusive classroom need to be high.

2. In order for PSTs to have high intentions to teach in inclusive classrooms, their concerns, such as about resources, acceptance of those with disability by other students, maintaining academic standards, increased workload, about inclusive education need to be low.

According to Shulman (2004), effective teachers require that they are broadly prepared with regard to their 'head, heart and hands', commonly known as the '3H' model. In other words, teacher education should focus on knowledge and theory (head), ethics and attitudes (heart) and technical and practical skills (hands). Building upon these ideas, Rouse (2010) advocated that teacher educators should focus on all these domains. It was thought that Ajzen's (1991) TPB could be used to understand aspects of the '3H' approach to inclusive education. For this reason, the theory was used to guide the current research in understanding PST intentions to teach in inclusive classrooms.

The Theory of Planned Behaviour

Ajzen's (1991) TPB attempts to explain volitional behaviour through understanding the attitudes of professionals. The TPB outlines four key elements that influence behaviour. Namely: 1) attitudes, 2) subjective norm, 3) perceived behavioural control and 4) intentions. Specifically, the TPB asserts that an individual's attitudes, subjective norm and perceived

behavioural control are independent constructs that determine their intentions. In turn, these intentions strongly predict actual behaviours (Ajzen, 1987).

In the case of inclusive education, a teacher who has a positive attitude towards responding to diversity (attitudes), feels their behaviour is typical within their specific culture and is socially supported (subjective norm), and perceives that they have sufficient behavioural control about how to include individuals with disabilities (teaching efficacy), will likely have higher intentions to teach in inclusive classrooms. Subsequently, these intentions should lead to quality inclusive practices. In addition, PST concerns about inclusive education have also been shown to be related to intentions to teach inclusively (Carew, Deluca, Groce, & Kett, 2019). Despite this construct not specifically fitting within the TPB, previous researchers have conceptualised PST concerns about teaching within inclusive classrooms as a representation of their subjective norms (Sharma, Simi, & Forlin, 2015). In other words, because PSTs are not regularly working in a school, it is difficult to establish if this construct remains stable over time. When PSTs reflect on 'making inclusion happen' they are, in a sense, assessing the support they may require or receive (Sharma et al., 2015). Given that the TPB model is being used as a guide and is not being validated in this present project, the variable *concerns* will also be investigated because it has the potential to explain some of the variance in intention to perform inclusive behaviours. *Figure I* is a representation of the key variables investigated in the current project, which was guided by the TPB.
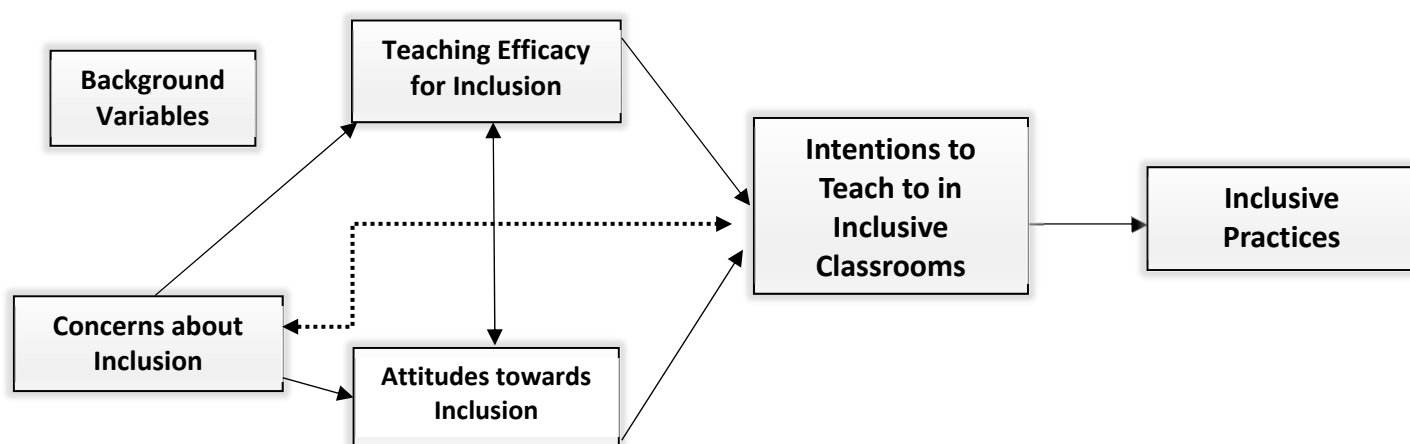
Figure I. The theoretical framework guided by the TPB (Ajzen, 1991)

Furthermore, the current research took place within a broader project founded on a new conceptual framework for teacher education which was framed by Shulman's '3H' model but applied to an inclusive teacher education context (Sharma, 2018). The broader project was concerned with the collaborative design of the new Subject for inclusive teacher education. More specifically, four features of teacher education guided the broader project. Firstly, PSTs should be taught by both university educators and practicing teachers. Secondly, content learnt by PSTs should be grounded in inclusive education philosophy and evidence-based practice. Thirdly, school mentor teachers and university academics should collaborate in school classrooms to share knowledge and resources. Lastly, objective measures of teacher quality should be used throughout courses and during placement in order to determine their readiness to work in inclusive schools. Sharma (2018) suggests obtaining information from PSTs, mentor teachers and the students at schools. Making use of these three sources of data will create a deeper understanding of PSTs readiness to teach inclusively.

Previously, researchers have specified the type of content to be included in teacher education for inclusion. Sharma (2012) specified a number of features of a PST subject that were deemed sufficient in enhancing willingness to teach inclusively. More specifically, the content included a focus on: 'What is inclusion?'; 'Why inclusive education?'; and 'How to

implement inclusive education'. Furthermore, Forlin (2010a) has argued that teacher education courses should provide PSTs with practicum experiences to ensure that they can implement inclusive practices in authentic classroom situations. Teacher preparation programs, therefore, need to include formal practical experiences underpinned by philosophical and theoretical principles of inclusive education.

The present study, framed within the broader project, focused on how to conceptualise the preparation of PSTs and to determine the impact of the newly designed inclusive teacher education Subject. Moreover, the PST education Subject was taught at two sites. At Campus A, the Subject content was co-taught by one practicing teacher and one university academic. Such a partnership was designed to help bridge the gap between theory taught in universities and inclusive classroom practice. At Campus B, the Subject was taught only by one academic as a comparison to the teaching arrangement at Campus A.

The difficulty educators experience in aligning theory with effective inclusive educational practices has been well-documented (Foegen, Espin, Allinder, & Markell, 2001; Grima-Farrell, 2018). Despite this recognition, few studies have been conducted which specifically focused on the translation of inclusive principles into practice (Grima-Farrell, Bain, & McDonagh, 2011). The current research, therefore, sought to contribute to a better understanding of the apparent research-to-practice gap that exists in this research domain.

Aims

Overall, the research aimed to contribute to an understanding of how to align inclusive theory with inclusive practice. Furthermore, the research was designed to:

- Affirm whether or not the 'preparedness' variables and the relationships between them were in line with the TPB.

- Determine whether PST intentions (i.e. the best predictor of actual practice according to the TPB) were predicted from their attitudes, efficacy and concerns.

- Ascertain whether the attitudes, efficacy, concerns and intentions of PSTs were significantly related to background variables such as their gender, direct contact with people with disability, knowledge about policy and legislation etc.

- Determine whether the TPB variables were significantly related to observable inclusive practices after completing the inclusive education Subject.

- Understand the impact of the inclusive education Subject on the TPB variables associated with inclusive practice. Furthermore, to understand if there was any differential impact relating to how the Subject content was delivered (i.e co-teaching or single-teacher model).

- Investigate PST's perceived facilitators and barriers to teach in inclusive classrooms.

To work towards these aims two studies were conducted. The primary purpose of Study 1 ('Pre and Post Stage Analysis') was to determine which variables predicted PST intentions to teach in inclusive classrooms before and after completing the Subject in inclusive education. The secondary purpose of this study was to develop an understanding of the impact of the newly developed coursework Subject on PST attitudes towards inclusion,

teaching efficacy for inclusive education, levels of concerns about inclusion, and intentions to teach in inclusive classrooms.

The purpose of Study 2 ('Understanding Inclusive Practices') was to examine the relationship between PST's attitudes, self-efficacy, and concerns and intentions with regard to inclusive teaching practice. A research question was formulated related to these relationships. For this study, the data from the post questionnaire only (5-part survey) was used along with classroom observation data (Inclusive practices classroom observation schedule – IPCOS).

Structure of Thesis

Chapter 1 presents a brief rationale and background to the current research area followed by the guiding theoretical framework. Next, the specific aims and an overview of the thesis are provided.

Chapter 2 is a literature review that includes: an overview of 'what' inclusion is and 'why' it is a promising approach to educating students with disabilities. This is followed by a description of the international policies for inclusion, the policy related to PST education in Australia, the variables relating to attitudes, teaching efficacy, concerns and intentions, and the research relating to effective inclusive practices. Finally, the research questions associated with the present study will be presented.

Chapter 3 includes a recently published article titled: 'Investigating the practices of classroom teachers: a scoping review and thematic analysis'. This systematic scoping review expands on the current evidence base for understanding teacher's inclusive classroom practices. Its purpose was to determine which inclusive practices teachers found important to use with learners with diverse abilities when conducting classroom observations. The thematic analysis of observable inclusive teacher practices was concentrated into five themes: 'Collaboration and Teamwork', 'Determining Progress', 'Instructional Support',

'Organisational Practices', and 'Social/Emotional/Behavioural Support'. These findings highlight the key themes relating to inclusive classroom practice and may help to guide future investigations of PSTs within a classroom context.

Chapter 4 includes the research methodology used for the two studies. More specifically, the research design, participant selection and recruitment, setting, data collection procedures, instrumentation and data analysis procedures were outlined. This chapter also included ethical considerations for the research.

Chapter 5 provides an overview of the results including: the process of data entry, data cleaning, and analysis. The findings of Study 1 ('Pre and Post Stage Analysis') and Study 2 ('Understanding Inclusive Practice') are presented in line with the 10 research questions. Results of the pre/post analysis of questionnaires (including exploring the TPB variables), thematic analysis of open-ended questions, reliability assessment of scales, observation phase findings, are presented. This chapter also explores the impact of the inclusive education university Subject to influence PST attitudes, concerns, teaching efficacy, intentions and classroom practices. The results are based on pre/post analysis of TPB variables as well as the four observations.

Chapter 6 presents the discussion. The results of the current research are examined in relation to the previous literature. First the utility of the theoretical framework (TPB) is considered. Next the impact of the inclusive education Subject is reviewed. Thereafter, features of the Subject (i.e. the content and co-teaching arrangement) are investigated. Finally, the prediction of intentions from the key variables are discussed.

Chapter 7 presents the conclusions, implications, recommendations and limitations of the current research. More specifically, the chapter highlights how the findings of the current research contribute to the field of PST education for inclusion. Finally, the implications and

recommendations are specifically targeted at policy makers, teacher educators and researchers.

Key Terms

The following key terms are provided here to ensure that the essential concepts are clearly understood from the outset of the thesis:

Inclusive Education

"…a dynamic process of change and improvement through which the education system and individual schools, school managers, and teachers address the education needs of all children without discrimination" (UNESCO, 2013, p. 4)

Inclusive Pedagogy

…teacher skills and knowledge with regard to making inclusion work (Florian & Black‑Hawkins, 2011)

Pre-service teacher (PST)

…is an individual who is currently enrolled in a teacher preparation program with the aim of being a future educator. In the current project, PSTs were all in their third year of a four-year Bachelor of Education degree.

In-service teacher

…is an individual who is a qualified educator currently employed and practising in a school.

Teacher Educator

…is an individual who is responsible for delivering content and teaching PSTs in a university context.

Inclusive Education University Subject (the 'Subject')

…a single unit of study focused on inclusive education that consisted of 10 workshops followed by three weeks of practicum experience.

Attitude

… a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object (e.g. individuals, social groups, situations, events, social issues) (Fishbein & Ajzen, 1977).

Teaching Efficacy

…a teacher's confidence in their own ability to affect student outcomes. Gibson and Dembo (1984) conceptualised the construct as having two distinct elements: personal teacher efficacy and general teacher efficacy. The former relating to their own inclusive teaching ability and the latter regarding the teaching profession's general ability to bring about positive student outcomes.

Intentions

…a person's readiness and willingness to perform a behaviour (Ajzen, 2011).

Concerns

…feelings of uncertainty that teachers may experience in response to changing or new demands (Yan & Deng, 2019).

Inclusive Practices

… strategies/behaviours that teachers use to ensure that students with diverse abilities can learn in regular classrooms (Finkelstein, Sharma, & Furlonger, 2019).

Chapter 2: Literature Review

Chapter Overview

In this chapter, further detail regarding the key variables related to pre-service teacher (PST) implementation of inclusive practices will be investigated.

In Australia and internationally, improving PST education for inclusion is increasingly being targeted through policy initiatives. In addition to the foundational policy requirements outlined below (e.g. Salamanca Statement), the contemporary policy context has been designed to promote the need for higher quality PST education (AITSL, 2011). Consequently, teacher education providers are required to demonstrate that their programs are making a difference to PSTs in the classroom and that PSTs are 'classroom-ready' upon graduating from university (TEMAG, 2014).

These ideas have been embodied in the recent Royal Commission report into Violence, Abuse, Neglect and Exploitation of People with Disability (the Disability Royal Commission) (Disability Royal Commission, 2019). More specifically, teacher capabilities and skills have been identified as critical to effectively teaching students with disability. As a result, it has been suggested that teachers require quality training to be able to implement inclusive education. It has been challenging, however, to identify the key variables associated with inclusive practice (Florian, 2008) along with understanding how best to target teacher education so graduate teachers are prepared to actually teach an inclusive manner. Therefore, the practices and variables relating to effective inclusive education practices need to be identified in order to inform the design of PST education programs and to understand if such programs are effective.

The first section of the chapter provides an overview of what inclusion is and why it occupies a valid place on the current educational agenda. Next, the international policy for inclusion is outlined. Thereafter, the policies and standards related to PST education in

Australia are presented. Next, the definitions, previously published research and variables relating to attitudes, teaching efficacy, intentions and concerns, are presented. Additionally, the research relating to effective inclusive practice will be briefly reviewed. Lastly, the research questions associated with the current line of research will be presented.

What is Inclusive Education?

Two key definitions align with a modern interpretation of inclusive education. UNESCO (2013) recognizes that:

"…inclusive education is a dynamic process of change and improvement through which the education system, and individual schools, school managers, and teachers address the education needs of all children without discrimination" (p. 4).

Ainscow (2005) identified four key elements that should form the foundation of inclusive education. First, inclusion is an ongoing process to search for ways to respond to diversity, and therefore it is aspirational and iterative. It is about an ongoing journey of learning to live with difference, and about learning about how to learn from difference. Second, inclusion is concerned with the identification and removal of barriers to learning. Implementing inclusion requires collecting, collating, and evaluating information from a variety of sources to plan for improving practice, systematically and scientifically. Third, inclusion is about the presence (i.e., attending schools alongside other students), participation (i.e., the quality of experiences), and achievement (i.e., learning and achieving across the curriculum not just examination results) of *all* learners, not just those who have an identified disability. Fourth, inclusion involves a particular emphasis on learners who are at an increased risk of marginalisation, exclusion, or underachievement. Inclusion requires that

educational stakeholders (i.e. teachers, teacher educators, PSTs etc.) attempt to ensure the presence, participation, and achievement of all students within education systems.

The term 'inclusion', however, is often used in relation to special education and educating students with disability only (Arduin, 2015; Norwich, 2014). These notions are more in line with a segregation approach to education and do not align with the aforementioned definitions of inclusion. The stakeholder responsible for 'reclaiming' the term 'inclusive education' and working towards inclusive goals is the classroom teacher. Teachers are one of the most significant variables associated with student achievement and in the development and implementation of inclusive education (Hanushek, 2014; Hattie, 2009). Teachers are, therefore, well positioned to be key agents for implementing inclusive reforms within schools and classrooms to overcome a history of segregation and to influence school-student outcomes (Friend, 2014; Hattie, 2009; OECD, 2005).

Overall, reforms for inclusive education can be considered an opportunity to increase the quality of education for all. When viewed as an educational challenge, teachers may strive for better outcomes for themselves and their students. Thus, focusing on teachers and their approaches to implementing inclusion as opposed to focusing on student deficits should be a priority (Ainscow, Booth, & Dyson, 2006).

Why Inclusive Education?

Putting aside the human rights impetus for inclusive education, there is also evidence-based research justification for inclusive education. International literature is moving past the notion of justifying inclusion as an agenda and onto 'if' and 'how' it is consistently implemented at a high quality.

It is now well evidenced and documented that inclusive education can lead to higher quality education for all students (Jordan, Glenn, & McGhie-Richmond, 2010; Jordan &

Stanovich, 2001). More specifically, inclusive education research has documented evidence of academic and social developments for all students. Firstly, better academic and vocational outcomes for those students educated in inclusive settings have been observed when compared to those students from segregated settings (de Graaf, Van Hove, & Haveman, 2013). Students with additional learning needs who are educated within inclusive settings have been shown to perform closer to grade average as well as achieve higher scores on language and mathematics measures compared to their matched pairs in segregated settings (Peetsma, Vergeer, Roeleveld, & Karsten, 2001). Furthermore, Ruijs and Peetsma (2009) reviewed the effects of inclusion on students with and without special needs. The two reviewers concluded that the majority of the research found positive or neutral results relating to inclusive settings, with outcomes often better than segregated educational settings. As well as this, students often demonstrated improved performance and experienced a more flexible and sensitive approach to teaching (Kalambouka, Farrell, Dyson, & Kaplan, 2007). Additionally, students with a disability also demonstrated greater social and communication gains within inclusive settings when compared to their gains in segregated settings (Jordan, Schwartz, & McGhie-Richmond, 2009). This was attributed to more opportunities for positive social interactions (Antia, Jones, Luckner, Kreimeyer, & Reed, 2011). Also, within quality inclusive educational settings, when diversity is highly valued, educators appear to better understand the individual learning needs of all students (Finke, Finke, McNaughton, & Drager, 2009).

In addition to improved outcomes for students, teachers working within inclusive settings reported that their teaching skills had improved along with their level of job satisfaction (Finke et al., 2009). For example, Jordan et al. (2010) reported that when properly supported within inclusive settings, teachers described feeling more confident to tackle issues of diversity and their overall teaching quality was rated more highly.

Aside from the direct benefit of inclusion to various stakeholders, it has been recognised that inclusive educational settings are generally less expensive than segregated systems. It has also been suggested that a single system may be more cost-effective than two separate approaches (Uditsky & Hughson, 2007). For example, in Reykjavik, Iceland, it was determined that students with additional needs could be accommodated in mainstream classes for approximately the same cost, if not less, than students in segregated settings (Labon, 1999). This cost-benefit analysis highlighted the economic justification for this modality of education and reinforces the notion put forward by UNESCO that inclusive education can "…improve the efficiency and ultimately the cost-effectiveness of the entire education system" (UNESCO, 1994, p. ix).

When considering the evidence base for inclusive education, however, there are a number of limitations which need to be highlighted. First, in many studies the focus has not been on inclusion but on situations where students with additional needs were integrated into a mainstream school. This form of integration often refers to the placement of students in mainstream settings without necessarily providing individualised educational plans (Thomazet, 2009). Furthermore, the variation across study designs has made the task of comparing outcomes complicated. Taken together, these limitations serve to confuse the interpretation of the results of research studies within this domain. As a result, drawing conclusions that can be used to guide inclusive educational practice has been difficult.

International Inclusive Education Policy

Increasingly, students with diverse educational needs are being placed in general education settings (World Health Organisation, 2011). Various international policies, declarations and legislation advocating for inclusive education have provided a documented base from which the notion of developing education systems for all has arisen. However, as

can be seen in the *Education for All Global Monitoring Report* (UNESCO, 2015), the goals of policy are yet to be achieved and many countries throughout the world continue to be plagued by inequalities. For example, only half of all countries achieved the goal of universal primary enrolment (UNESCO, 2015) and many teachers are still resistant to the inclusion of students with significant needs such as those with intellectual disabilities and emotional or behavioural disorders (Sharma, Forlin, & Loreman, 2008; Westwood & Graham, 2003). Overall, students continue to be disadvantaged by deficit-focused models of education and/or denied access to quality inclusive education (UNICEF, 2013), leading to the conclusion that there is a disconnect between the philosophical and theoretical basis of inclusion and how this education modality is experienced and enacted in reality.

The history of inclusion can be traced back to the mid-20th century. Following the Second World War, the Universal Declaration of Human Rights (1948) was drafted. This document set out fundamental human rights that should be universally protected and represents the first attempt to advocate for education to be a fundamental human right and that parents have the right to choose where their children are educated. This declaration did not have an immediate impact on how students with diverse needs were educated. That is, prior to the 1960s students with diverse needs and skills were not afforded the right to education. The first step in working towards education for all students came in the form of special education. i.e., specially developed programs and institutions, which were separate from mainstream education (Ainscow, 2007). It was recognised that this categorical approach (special or mainstream) was not an equitable form of service delivery. This led to the integration movement, which meant placing students with diverse needs in mainstream classrooms where possible. This approach was primarily focused on placement and not on genuine inclusion. In other words, it was recognised that the exclusion of students is complex and cannot be overcome simply by being present in mainstream environments.

It was not until 1990 that the goal of meeting basic learning needs for everyone was adopted as international policy. Delegates from 155 countries convened at the *World Conference on Education for All* in Thailand where they adopted a *Framework for Action: Meeting Basic Learning Needs* (1990) and set out to consolidate 'education for all' as a key focus of the international agenda. Emphasis was placed not only on access to basic education, but also on the quality of education and actual learning outcomes. Furthermore, this declaration recognised that the current state of education systems globally were doing little to cater to the needs of students who were vulnerable to exclusion and this conflicted with aims of achieving education for all. This document, therefore, represented an international agreement for an expanded vision of basic education and a renewed commitment to the learning needs of all children.

Arguably the most influential document in the history of inclusive education is the Salamanca Statement and the associated framework for action (UNESCO, 1994). For the first time, the notion of inclusion was promoted as the primary form of education for all, including students with disabilities. The Salamanca Statement compels governments to adopt policy and law rooted in inclusive principles and advocates:

"Regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all". (UNESCO, 1994, p. ix)

This document established inclusion as the main focus of the international agenda. It outlined the idea that education should be more than just simply placing students in the same setting. More specifically, it promoted a child-centred pedagogy which provides genuine

opportunities for all, and diversity should be catered for and recognised as a resource. This perspective promotes the idea that educational systems should adapt according to the student's needs as opposed to fitting them in to an already established framework.

In 2006, the United Nations passed the *Convention on the Rights of Persons with Disabilities* (United Nations, 2006). This convention provided further support for the development of inclusive educational systems. Article 24 declares:

> "States Parties recognize the right of persons with disabilities to education. With a view to realizing this right without discrimination and on the basis of equal opportunity, States Parties shall ensure an inclusive education system at all levels and lifelong learning…" (United Nations, 2006, p. 16).

In 2009, the Policy Guidelines on Inclusion in Education (UNESCO, 2009) reaffirmed the importance of access to education for all young people. More specifically, it was documented that students should be achieving their full potential so that they can effectively participate in all facets of school life as well as society. Achieving personalised goals was also emphasised. Born out of the 'education for all' movement, the World Education Forum in Incheon was held in 2015 (World Education Forum, 2015). This declaration set out the new vision for education to be achieved by 2030. Equality and access, improvement of outcomes, and funding were key areas of focus. Overall, this declaration aimed to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (World Education Forum, 2015, p. 7).

Australian Policy and Legislation for Inclusion

In recent years, following on from international policy reforms, Australian policies have purported the need to promote high quality inclusive education for all. In response to such agendas, Australian teachers are facing the challenge of working within a context where there are increasing numbers of diverse groups of students (Smyth, 2013). Dempsey and Davies (2013) conducted a longitudinal study of Australian students and found that 12.3% of students have additional educational needs. Historically, such 'at-risk' students have been educated in segregated settings. Thus, there was pressure for the Australian government to implement legislation and policy to support the inclusive education agenda.

Today, Australia appears to be primed to implement inclusive educational practices. More specifically, the current policy and legislative ecology provides a documented base from which inclusive schools and systems can be promoted. However, given the lack of international consensus regarding what it means to be inclusive, it is unsurprising that there is currently no overarching definition or gold-standard interpretation of inclusion guiding the Australian inclusive education agenda (Graham & Slee, 2008; Lindsay, 2007). This issue is discussed in greater detail in Chapter 3. Furthermore, developing inclusive educational systems is complicated by the fact that the system itself it not a cohesive whole but approaches to education vary from state to state (Berlach & Chambers, 2011).

Legislation (e.g. the DDA, 1992 and the DSE, 2005) in Australia does not ensure that students with diverse needs receive quality inclusive education (Carroll, 2002). It is therefore implied that the legislative impetus appears to have had little influence on how inclusion is actualised. Dixon and Verenikina (2007) warned that good quality practice does not automatically ensue from well written policy or legislation. In other words, Australia currently has a dichotomy between its legislation and policy and what is actually happening in schools and classrooms (Dixon & Verenikina, 2007; Graham & Spandagou, 2011).

However, many policies have arisen to work towards the goal of inclusive education and to help teachers clarify their responsibilities to all students.

The *Melbourne Declaration on Educational Goals for Young Australians* (2008) is an example of such a policy (Ministerial Council on Education Employment and Training and Youth Affairs, 2008). Since the release of this document, Australia has primarily focused on the notion of successfully educating all young people. This document does not mention students with disabilities but rather aims for everyone to receive quality education. More specifically, the document proclaims two main goals for schooling. First, Australian schooling promotes equity and excellence; second, all young Australians become successful learners, confident and creative individuals, and active and informed citizens.

In 2010 the Attorney General's Department undertook a review of the DSE (2005). This involved consulting with education providers as well as individuals with diverse learning needs (Department of Education Employment Workplace Relations, 2012). Overall, this report revealed that stakeholders believed the DSE (2005) were a good framework for promoting the needs of students with disabilities and providing access and participation at the same level of opportunity as students without diverse educational needs. However, a number of concerns were also raised which were deemed to reduce the effectiveness of the standards. An important criticism was the notion that the standards lack an accountability framework and therefore it is unclear if and how teachers and stakeholders are subscribing to them. Also, the standards were criticised for not providing guidance for measuring inclusion and how discrimination could be overcome. The report provided 14 recommendations regarding how to overcome these limitations. These included: raising awareness of the standards; improving clarity in the definitions and terms; issues regarding access, discrimination and inclusion; processes regarding how to deal with complaints, accountability and compliance; contemporary and evidence based practices.

Furthermore, the Council of Australian Governments (COAG) National Disability Strategy for Australia 2010-2020 (COAG, 2011) has also suggested a number of outcomes for educational stakeholders to work towards. The COAG specifies that high quality inclusive education involves providing students with diverse needs life-long learning opportunities to realise their potential. To achieve these outcomes, the COAG focused on developing early learning, child care, school and further education through strengthening the capabilities of all education providers and by reducing barriers to education for students with diverse needs. (COAG, 2011).

In response to the United Nations' *Convention on the Rights of Persons with Disabilities*, the University of Melbourne's Hallmark Disability Research Institute (2015) outlined important areas in which to develop education systems for inclusion. These included:

- The need for education systems to increase efforts to provide appropriately resourced inclusive education to all students with a disability
- Teacher development for inclusive education needs to position teaching as a clinical-practice profession, in line with many allied health professions, and should prepare PST candidates for interventionist and inclusive teaching
- The concept of universal design, rather than reasonable accommodations, should be promoted in future United Nations instruments and other documents

Overall, policy documents, legislation and initiatives serve to set the bar for what inclusive education means in Australia. The documents also outline what is necessary to develop inclusive systems staffed by high quality educators. However, despite these well-articulated standards and recommendations, the question remains, 'are teachers in Australia prepared to be working in inclusive classrooms?'.

Australian Teacher Education Policies and Standards

One avenue to investigate the preparedness of PSTs in Australia for inclusion is through teacher education. Today, it appears that the inclusive education agenda has been embraced by some teacher educators throughout Australia and the need for understanding how PSTs implement inclusive practices is recognised (Berlach & Chambers, 2011; Stephenson, O'Neill, & Carter, 2012). At the same time, typically, reviewers of teacher education research have concluded that teacher education programs are often under-developed, under-theorised, and disconnected from practice (Murray, Nuttall, & Mitchell, 2008; Sleeter, 2014). Furthermore, the Australian Education Union (AEU) declared that "many teachers report feeling under-prepared when it comes to educating students with disability" (Commonwealth Government of Australia, 2016, p. 77). Indeed, 63% of teachers stated that their preparation and professional development did not sufficiently equip them to teach students with diverse needs (Commonwealth Government of Australia, 2016). Thus, it seems that despite policy being in place, its effect on teacher education is not necessarily leading to graduates being prepared to teach using an inclusive educational model. More research is required to understand how universities can develop their teacher education courses so that PSTs are better prepared (Varcoe & Boyle, 2014). Therefore, preparing PSTs for inclusion and developing a greater understanding of PST inclusive practices (and the associated variables) in authentic classroom contexts, are important areas of research that warrant a critical focus to work towards aligning inclusive philosophies with classroom practices. In addition, inclusive pedagogy is a concept that focuses on what inclusion, as performed by the teacher, 'looks' like and what goes into making it happen. Inclusive pedagogy is defined as the teacher's skills and knowledge with regard to making inclusion work (Florian & Black‐Hawkins, 2011). Focusing on how PSTs implement inclusive

pedagogy may allow for a better understanding of relevant areas for development, with a view to sustaining inclusive educational practices in the classroom.

In 2009, the national *Smarter Schools-Improving Teacher Quality National Partnership* (TQNP) was established (Department of Education Employment and Workplace Relations, 2010). This partnership was a landmark agreement between the federal government and states and territories to provide funding to improve teacher quality. The partnership outlined areas for reform to be targeted over a five-year period These reforms included: enticing the best graduates to teaching through additional pathways; developing national standards and teacher registration; improving retention by rewarding high quality teachers and school leaders; building knowledge of teachers and school leaders through their careers and improving the quality of teacher education. Since the TQNP, Australia has taken action to strengthen the teaching and school leadership profession with an aim to develop national approaches and the capabilities of stakeholders in this area. Such federal initiatives to support students with additional needs and to bolster PST education for inclusion include The Ministerial Council on Education, Employment, Training and Youth Affairs (AITSL, 2011) (2009 – 2012), the Australian Curriculum Assessment and Reporting Authority (ACARA) and the Teacher Education Ministerial Advisory Group (TEMAG, 2014).

In 2010, the Australian government funded the establishment of the *Australian Institute for Teaching and School Leadership* (AITSL). The overarching aim of this governing body was to increase the quality of teaching and school leadership (AITSL, 2011), with the role to: a) develop and maintain national professional standards for teachers and school leaders, b) foster and drive high-quality professional development for teachers and school leaders and c) collaborate across jurisdictions and engage with key professional bodies.

In 2011, AITSL developed processes for accrediting initial teacher education programs as well as the national professional standards for teachers. These were updated again in 2015. The standards articulate the professional knowledge, practice and engagement requirements of teachers. Furthermore, the standards differentiate between career stages of teachers (i.e., 'Graduate', 'Proficient', 'Highly Accomplished' and 'lead'). These standards are underpinned by inclusive ideals and provide some recommendations about how to provide inclusive education. More specifically, graduate teachers are expected to:

- develop teaching activities that incorporate differentiated strategies to meet the specific learning needs of students across the full range of abilities
- design and implement teaching activities that support the participation and learning of students with disability and address relevant policy and legislative requirements
- establish and implement inclusive and positive interactions to engage and support all students in classroom activities

The Graduate and Proficient levels provide a benchmark against which to assess new professionals who have completed their initial teacher education. The standards allow for both teachers and teacher educators to have a common understanding of their roles. The standards are organised according to the knowledge, practice and professional development required throughout their careers. Standards for teachers can have a number of other purposes, for example, they can: provide stakeholders with the impetus to focus on quality teaching, provide a benchmark or norm to be used as a method of regulation; emphasise accountability to the public and provide reassurance of quality (Sachs, 2003).

The Australian Professional Standards for Teachers comprise of seven standards:

1. Know students and how they learn

2. Know the content and how to teach it

3. Plan for and implement effective teaching and learning

4. Create and maintain supportive and safe learning environments

5. Assess, provide feedback and report on student learning

6. Engage in professional learning

7. Engage professionally with colleagues, parent/carers and the community

In 2014, the role of graduate teachers and task of determining their 'preparedness' for inclusion was further articulated, with the creation of the *Teacher Education Ministerial Advisory Group* (TEMAG). The main aim of this group was to provide recommendations as to how to better prepare PSTs for the realities of diverse classrooms during their teacher education (TEMAG, 2014). Overall, the report acknowledged that quality teacher education programs were available in Australia, but that there was a need to improve both the content and delivery of such programs. In response, the Australian government outlined five key areas to focus attention: stronger quality assurance of teacher education courses; rigorous selection for entry to teacher education courses; improved and structured practical experiences for teacher education students; robust assessment of graduates to ensure classroom readiness and national research and workforce planning capabilities (Commonwealth Government of Australia, 2015). Taken together, the TQNP funding recommendations, AITSL standards and accreditation procedures and the TEMAGs call for strengthening graduate teachers capabilities all serve to promote a focus on high quality teachers within an inclusive framework.

Despite Australian policy and standards promoting inclusive education reforms, it is not always clear if such initiatives actually make a difference to PSTs. This issue has been highlighted in a number of recent reviews, suggesting that there is a discrepancy between policy and classroom practice. For example, Mayer, Cotton and Simpson (2017), in a systematic review, examined the evidence of effectiveness and impact of teacher preparation on teacher education graduates. More specifically, the general purposes of their review was to examine the assumption that there is little or no evidence of the effectiveness of teacher education in Australia and to establish a sense of how evidence of teacher education is being framed. Their review focused on research produced in Australian since the 2014 TEMAG report. The search resulted in seven articles that were summarised with regard to the focus of the research, research methods, the scales of the study and how the researchers defined and interpreted effectiveness. They concluded that teacher educators needed to clearly define their goals for effectiveness and report how they measured the success of their programs over time. By doing so, a common research agenda regarding how policy is implemented in the classroom, could be realised.

Forlin (2010b) suggests two main challenges with teacher education in Australia. Firstly, with regard to teacher education curriculum, many institutions continue to provide outdated curriculums that tend to be in line with exclusion and do not account for heterogeneity in classes. Many curriculums are still conceptualised as discrete programs rather than philosophy and process that need to be adopted and embedded across all areas of teacher education. Forlin (2010b) suggested that "until the idea of inclusion is infused across all aspects of teacher education, it will remain aloof and disconnected and continue to be seen by teachers as something different, special and not part of normal classroom teaching" (p. 652). Secondly, pedagogies do not necessarily align the work of universities and training institutions with schools. It is suggested that pedagogies should be progressive, use

technology, be creative and promote critical self-analysis and reflection. In essence, pedagogies should "mirror the type of inclusive practices that are needed in schools" (p. 652). Furthermore, the importance of collaboration in and across faculties, the merging of regular and special education training and combining of pre-service training across all age groups are additional avenues for reform (Forlin, 2010b).

In another review by Symenonidou (2017), the main issues and trends in initial teacher education courses on Inclusive Education published between 2000-2014 were sought. The researchers identified two broad thematic areas, including the challenges in providing teacher education for inclusion and different approaches employed in teacher education for inclusion. More specifically, five key areas were emphasised as being important to guide the future research agenda. These include the specific content of inclusive education, the process of developing an ethical commitment to inclusion, the nature of partnerships between universities and schools, the relationships between in-service, PSTs and academics, and finally, the process of investigating specific cultural contexts. Overall, aiming to understand how PSTs come to be committed to inclusion and how they can become agents for change requires investigation.

Key Variables Associated with PST Preparedness

As outlined above, the national and international policy for inclusive education appears to be in place. What remains to be determined is how teacher preparedness can be understood and bolstered through teacher education. Guided by the TPB, the following section highlights the variables that have previously been associated with high quality inclusive practices of teachers. Namely, attitudes, teaching efficacy, concerns and intentions.

Attitudes towards Inclusion

While various definitions and conceptualisations of attitudes exist throughout the literature, the present study defines attitudes as "a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object (e.g. individuals, social groups, situations, events, social issues) (Fishbein & Ajzen, 1975, p. 6).

The 'attitudes as constructs' model emphasises context as a necessary factor affecting one's attitudes. More specifically, attitudes are expressed in context in response to a situation, based on factors which arise in the moment (Schwarz & Bohner, 2001). For the purpose of this research, the multidimensional 'tripartite model' of attitudes will be used (Allport, 1935). The tripartite model has been used to support the argument that cognitive, behavioural and affective responses to a particular 'attitude object' are independent constructs underlying the overall construct of attitudes (Allport, 1935). More specifically, the cognitions are the beliefs or knowledge regarding the attitude object. For example, the view that 'students with diverse educational needs belong in mainstream classrooms'. The behavioural elements relate to views about how to act. For example, 'I refuse to give extra time and support to students with additional educational needs'. Affect is related to feelings. For example, 'I feel afraid that students with additional educational needs will distract other student's in the classroom'.

Moreover, at the level of the individual teacher, attitudes are one of the most influential variables affecting the successful implementation of inclusive practices (Cologon, 2012; Malinen, Savolainen, & Xu, 2012). Thus, it is the connection (albeit indirectly) with behaviour that provides the justification for focusing on this construct. This indirect relationship has been demonstrated to be connected to intentions. In other words, attitudes predict whether or not inclusive behaviours are intended and thus enacted (MacFarlane & Woolfson, 2013).

In their narrative review investigating teacher's attitudes towards inclusion and integration, Avramidis and Norwich (2002) identified three major influences on teachers' attitudes: child-related, teacher-related and environment-related variables. The authors concluded that beliefs and attitudes are critical in ensuring the success of inclusive practices. Moreover, teachers' acceptance of inclusive ideals and policy effects their commitment to implementing inclusion in the classroom (Avramidis & Norwich, 2002). Furthermore, in cases where inclusion is effectively implemented, teachers often hold positive attitudes and are more flexible in their approach to working with students with diverse needs (Subban & Sharma, 2005).

When investigating the type of attitudes, it is clear that teachers may hold a wide range of views. A large number of studies have investigated teacher attitudes (Ahmmed, Sharma, & Deppeler, 2012; De Boer, Pijl, & Minnaert, 2011; Forlin, Sharma, & Loreman, 2007). Some researchers reported that teacher attitudes towards inclusion were positive (Ahsan, Sharma, & Deppeler, 2012; Avramidis, Bayliss, & Burden, 2000), while other researchers found teacher attitudes to be either negative or neutral (Batsiou, Bebetsos, Panteli, & Antoniou, 2008; De Boer et al., 2011). Some teachers reported a willingness to include students with diverse learning needs only when they are provided with sufficient support while others expressed the opinion that including students with diverse needs may negatively affect the rest of the class with regard to learning outcomes (Friend & Cook, 2013; Hastings & Oakford, 2003). Yet other teachers valued segregated settings and believed that students with additional educational needs were better off separated from inclusive classrooms. In other words, they felt that students with disability received higher quality education in segregated settings (Grieve, 2009; Lambe & Bones, 2008). Despite contrasting attitudes reported by teachers, what is clear, is that their positive attitudes towards diversity

and inclusion are a prerequisite for the successful implementation of inclusive practices (Ahmmed et al., 2012; Forlin, 2010a).

When investigating teachers and administrators' attitudes towards working within diverse classrooms, Jordan et al., (2009) highlighted two important belief systems relating to attitudes. Namely, "pathognomonic" or "interventionist". Pathognomonic attitudes shift the responsibility of learning onto the child and attribute difficulties in learning to the child. Interventionist attitudes focus on the teacher's responsibility to value diversity and highlight the importance of student relationships within a classroom. Results from half-day observations indicated that teachers who believe that they are responsible for instructing students with special education needs in their inclusive classes are more effective overall and also in working individually with students with diverse needs. Effectiveness was measured using the Classroom Observation Schedule (Jordan & Stanovich, 2004). This measure focused on factors of time management, classroom management and lesson presentation. Furthermore, administrators who identified with interventionist views were more likely to employ teachers who scored higher on the Classroom Observation Schedule (Jordan & Stanovich, 2004). Teachers who held beliefs in line with the interventionist model of learning needs also had more effective teaching practices than those with a static view of development.

Other studies have shown that some teachers continue to be apprehensive and express serious reservations about how inclusive education can be implemented (Hornby, 2001). Given the recognition that negative attitudes impede the realisation of inclusive education (Tsui, Sin, & Yu, 2007) it is necessary to understand these types of attitudes in order to work towards fostering positive attitudes to diversity and inclusion. In the past, teachers have often expressed that they are not supportive of full inclusion and that segregated settings were appropriate for students with additional needs (Coates, 1989). One possible explanation for

these negative views is a lack of support and education for responding to diversity (Hwang & Evans, 2011).

Today, researchers have demonstrated that some teachers continue to hold negative attitudes towards inclusion. De Boer et al., (2011) reviewed what attitudes teachers held towards inclusive education, which variables were related to attitudes and if attitudes affected the social participation of students with additional educational needs. Of the 26 studies investigated, most had a focus on the behavioural and knowledge components of attitudes. Overall, teachers expressed neutral or negative views about inclusive education and most did not rate themselves as very knowledgeable. Teachers also reported that they did not feel competent or confident to implement inclusive education. Lastly, with regard to behavioural components, teachers expressed negative or neutral views with regard to specific disability categories (e.g. intellectual disability) (De Boer et al., 2011).

Overall, negative attitudes from teachers and administrators, such as believing that students with disabilities should be segregated or that a student's abilities are not able to be changed, represented significant barriers to inclusive education (Sharma & Chow, 2008; Unianu, 2012). Such attitudinal barriers may underlie all other environmental barriers and are difficult to change. In the classroom, such attitudes are manifested by the teachers through misconceptions, stereotypes, anxiety, misunderstanding student rights and opportunities, and further isolating students with additional needs (Odom, 2000; Parasuram, 2006).

Variables Associated with Attitudes

Scruggs and Mastropieri (1996) reviewed the literature and aimed to summarise teacher responses to mainstreaming and inclusive education as well as evaluate the impact of variables on teacher attitudes. Twenty-eight studies were located. Overall, a majority of general education teachers indicated support for concepts relating to the philosophy of

inclusion. It appeared that a teacher's positive views were related to the level of severity of a student's disability. Also, teachers were consistent in their support of students with disabilities and reported a willingness to teach students with disabilities. These views were significantly related to the severity of the student's disability and the teacher's apprehension regarding their additional responsibilities. Only a minority of teachers agreed that mainstream classrooms were the best environment for students with additional needs and many teachers believed that such students could contribute to classroom disruptions and detract from the mainstream student's learning opportunities (Scruggs & Mastropieri, 1996). Also, time, additional experience and availability of resources were raised as important issues relating to attitudes and the subsequent implementation of inclusion (Scruggs and Mastropieri, 1996).

Salvia and Munson (1986) proposed a typology of variables relating to attitudes. These included child related variables, teacher variables and environmental variables. One such teacher-related variable relating to teachers' attitudes is their sense of self-efficacy. Attitudes and self-efficacy are the two main concepts in the present study, both of which are associated with implementing inclusive approaches successfully. Previous researchers have concluded that teacher attitudes towards inclusive education and self-efficacy for inclusive practices have a positive relationship (Malinen et al., 2012; Meijer & Foster, 1988; Savolainen, Engelbrecht, Nel, & Malinen, 2012). In a sample of Israeli teachers, their sense of efficacy was the only factor that affected teachers' attitudes towards inclusive education (Weisel & Dror, 2006). A similar study by Malinen et al., (2012) examined Chinese teachers' self-efficacy using the Teacher Efficacy for Inclusive Practices (TEIP) scale and found that self-efficacy in collaborating with other teachers was the single factor that predicted teacher attitudes towards inclusive education.

A number of researchers have also investigated the relationship of teaching experience with attitude (Avramidis & Kalyva, 2007; Avramidis & Norwich, 2002; Cornoldi,

Terreni, Scruggs, & Mastropieri, 1998). Forlin (1995) found that greater experience led to less acceptance of inclusion. Some studies also showed no significant relationship between experience and attitudes (Forlin, Loreman, Sharma, & Earle, 2009). The quality of practicum experiences appears important and could explain the mixed findings (Villa, Thousand, Meyers, & Nevin, 1996). Boyle, Topping, Jindal and Snape (2013) surveyed secondary teachers in Scotland and compared them to special education head teachers. They found that newly qualified teachers were more inclined to hold positive views towards inclusive education. However, this declined after only a year in the profession. This suggested that positive attitudes may be developed during teacher education but perhaps lack of focus on inclusive education in authentic classroom settings may explain the change in attitudes. Furthermore, Vaughn, Schumm, Jallad, & Slusher (1996), examined the perceptions of teachers who were not currently working in inclusive settings. Focus groups were used to investigate the perceptions of 26 special educators and 25 mainstream teachers. It was found that teachers who did not have experience in an inclusive setting had strong negative feelings towards inclusion. Some of these attitudes related to: a belief that policy/decision makers were 'out of touch' with the realities of the classroom, whether or not all students benefit from inclusion, a lack of teacher preparation for inclusion, class sizes, and inadequate resources. It was suggested that these attitudes affected the success of implemented inclusive practices (Vaughn, 1996).

Furthermore, the grade level taught by teachers has also been shown to be related to attitudes (Avramidis & Norwich, 2002). Primary school teachers often work more collaboratively with students and adopt a more holistic approach to education whereas secondary teachers often focus exclusively on subject matter and not necessarily the needs of individuals (Avramidis & Norwich, 2002). This focus may impinge on their attitudes and highlights the notion that secondary education may be less compatible with inclusion.

Currently, research examining the relationship between face-to-face contact with students with additional needs and attitudes towards inclusion, is inconclusive. While it is recognised that in some cases, experience can lead to acceptance (Carroll, Forlin, & Jobling, 2003), it appears that the quality of experience should be positive for this contact to be connected to positive attitudes (Loreman, Forlin, & Sharma, 2007). With regard to quality of teacher education, additional research has compared methods of teacher education between several Australian and international universities (Sharma et al., 2008). Sharma et al., (2008) were unable to determine whether a single training module was more effective at improving attitudes and knowledge about inclusive education than an infusion approach which incorporated elements of inclusive education across several modules. Despite these inconclusive findings, it is clear that without sufficient support, teacher education experiences may lead to negative attitudes if the setting is deemed too stressful (Brown, Packer, & Passmore, 2013).

Changing Attitudes through Teacher Education

Negative attitudes are not necessarily fixed. Attitudes, be they positive, neutral, or negative, can change over time depending on the individual's experience, expertise and education (Albarracin & Shavitt, 2018). Studies within the realm of PST education have demonstrated that more research is required to ensure that graduating students' attitudes towards inclusion are positive.

Villa et al., (1996) investigated what would make teachers more open to teaching diverse student populations. It was concluded that in order for a school to become more inclusive there are several important factors. Namely, flexible-tailored education should be provided that accounts for diversity and has the aim of providing high quality education for all students. Adopting this approach can be influenced over time. It appears that no matter

what the positive views, resources or espoused ideas, if the attitudinal barriers are not accounted for, inclusive education will not be successful (Boyle et al., 2013).

Sharma et al., (2008) investigated the impact of training on PST attitudes and concerns about inclusive education and the sentiments about persons with disabilities. An interpretation of the findings has led to the conclusion that the content and pedagogy of a program is the most significant predictor of PST attitudes, sentiments and concerns. More specifically, direct and systematic contact with persons with disability with a person-centred focus appears necessary to building positive attitudes. Moreover, PST understanding and awareness of policy and legislation in favour of inclusion is also vital. Lastly, it was suggested that PSTs should undertake assignments which directly deal with their apprehensions and concerns. In working towards these recommendations, it is suggested that PSTs will form more positive attitudes towards inclusive education and students with additional needs.

Similarly, Sharma and Nuttal (2016) aimed to evaluate the effectiveness of an inclusive education course for PSTs in changing their attitudes, concerns and efficacy. They found that completing a course can serve to increase the positive attitudes of student teachers. The course was particularly effective at shifting attitudes relating to: inclusion and increased workload; inclusion negatively impact one's ability to manage a classroom; inclusion creating learning challenges for all; knowledge and understanding of diversity (not just towards disability categories). It appeared that PSTs were deemed less likely to exclude students based on 'limited capacity' and or learning needs. Besides leading to a change in attitudes, overall there were three key interrelated factors relating to teachers that could impact the success or failure of inclusive practices: (i) positive attitudes, (ii) low concerns regarding inclusion and (iii) higher teaching efficacy. Thus, it appears that appropriate and adequate teacher education courses are important in developing positive attitudes towards the

ideas about inclusion and in relation to students with disabilities (Sharma & Nuttal, 2016). However, simply focusing on attitudes alone will not lead to effective inclusion.

Teaching Efficacy for Inclusion

Another variable that has been investigated with regard to the successful implementation of inclusion is the teacher's sense of self-efficacy. Bandura (1997) defined self-efficacy as a belief in one's capacity to bring about the actions needed to succeed in a specific situation. This construct is not an objective evaluation of actual competence. Rather, it is a motivational construct based on one's self-evaluation of competence. Bandura's Social-Cognitive theory (1986, 1989) is in line with these self-evaluative concepts. Bandura proposed that self-referent thoughts may act as a mediator between knowledge and actions. Bandura dismissed the notion of individuals simply reacting to the world and emphasises that people are self-reflective, self-regulating, proactive and organise themselves. Teachers' skills and self-efficacy can profoundly impact the creation of an environment that is conducive to learning (Bandura, 1993). According to Bandura (1977), self-efficacy is influenced by two forms of beliefs regarding one's expectations: outcome expectations and efficacy expectations. The former refers to an approximation that a specific behaviour will lead to a specific outcome, while the latter refers to the belief that one is capable of successfully implementing a behaviour to produce a desired outcome (Bandura, 1977).

Within the context of teaching, efficacy is a key factor which informs attitudes, behaviours and practices and is a critical determinant in a positive inclusive environment for students (Tschannen-Moran & Hoy, 2001, 2007). This construct can be interpreted in line with Bandura's model of self-efficacy. Teaching efficacy is defined as a teacher's confidence in their own ability to affect student outcomes. When investigating teacher-efficacy specifically, Gibson and Dembo (1984), conceptualised the construct as having two distinct

elements: personal teacher efficacy and general teacher efficacy. The former relating to their own inclusive teaching ability and the later regarding the teaching professions general ability to bring about positive student outcomes (Gibson & Dembo, 1984).

When considering Bandura's theories in relation to teaching it is necessary to consider the context, personal competencies and specifics of the teaching tasks (Tschannen-Moran & Hoy, 2001). Teaching efficacy cannot be investigated without accounting for the specific context. Tschannen-Moran, Hoy and Hoy (1998) proposed the integrated model of teacher efficacy. Rooted in Bandura's social cognitive theory, teacher efficacy is cyclical in nature. That is, the perceptions of competence in outcomes inform one's appraisals of efficacy. The task analysis (within a specific context) and intra-teacher factors (assessment of personal teacher competency) affects perceptions of competency.

Teachers who have positive teaching efficacy may also develop a more flexible teaching style and have the ability to innovate the implementation of interventions (Sharma & George, 2016). Furthermore, for teachers, a higher sense of teaching efficacy is related to greater levels of grit, resilience, and enthusiasm when faced with the challenge of teaching diverse student populations (Sharma & George, 2016). Thus, gaining insight into PST teaching efficacy will help to inform the understanding of inclusive teaching practices.

Understanding how teaching efficacy relates to inclusive practice and how the self-evaluative construct is formed is vital in ensuring that PSTs believe they can affect student outcomes. Thus, understanding which variables teaching efficacy is associated with is necessary. Such variables include the classroom climate, the attitudes of PSTs and the level of support offered to PSTs

Variables associated with Teaching Efficacy

Hosford and O'Sullivan (2016) investigated the connection between classroom climate and teaching efficacy. The findings suggested that positive perceptions of the school climate were related to the teacher's confidence in their abilities. Teachers who rated their school as having a supportive climate with resources and procedures for collaboration perceived themselves to be more effective in their ability to manage behaviours, engage in collaboration and implement inclusive practices (Hosford & O'Sullivan, 2016). Also, positive judgments of school climate lead to greater opportunities for mastery experiences which can inform sense of efficacy for inclusive practice (Bandura, 1977).

Similar to attitudes towards inclusion, previous research with PSTs has highlighted that when working with students with high levels of needs, PSTs feel less effective as they belief that they do not have necessary competencies to influence student outcomes (Lifshitz & Glaubman, 2002). Moreover, while the connection between attitudes and teaching efficacy was outlined above, it is relevant to highlight the connection between negative attitudes and teaching efficacy. More specifically, simply exposing teachers to diverse student populations does not equate to inclusive education practice and confidence in ability. Rather, the quality and appropriateness of support is important when aiming to build a sense of teaching efficacy for beginner teachers (Sharma & George, 2016). This provides the rationale for focusing on teacher education in order to build PSTs sense of teaching-efficacy.

Building Teaching Efficacy through Teacher Education

Self-evaluative constructs such as teaching efficacy can be developed through a number of different experiences. They can be achieved due to physiological and emotional states which can be positive or negative, vicariously, through social persuasion, or most importantly (and effectively) through experiences of mastery (Bandura, 1997). Mastery refers

to the personal experiences of success or failure in the implementation of behaviours. This suggests that if provided with experiences of mastery, PSTs' feelings of teaching efficacy can be altered. Teacher education has shown mixed results with regard to impacting teaching efficacy. Overall, it is the quality of teacher education experiences that can contribute to teachers' feelings of teaching efficacy. Therefore, more exposure to best strategies, vicarious experiences through modelling of other teachers in context and embedded design principles in teacher education are necessary (Zundans-Fraser & Lancaster, 2012). When conducted effectively, self-efficacy can be bolstered and sustained overtime (Cologon, 2012; Malak, 2013). More specifically, when inclusive practices are explicitly taught as a part of teacher education course work, these experiences can increase teacher efficacy for managing behaviours in inclusive settings (Forlin, Loreman, & Sharma, 2014).

Lancaster and Bain (2019) compared two versions of a 13-week undergraduate course to determine their effects on PST self-efficacy. More specifically, the researchers contrasted a field-based placement with a course based on complex adaptive systems. Both lead to significant gains in self-efficacy, with neither approach deemed more effective. The authors emphasised that if teaching efficacy is to relate to a capacity to implement effective practices, it is the responsibility of the designers of teacher education course to explicitly connect the sources of self-efficacy with those approaches that have been shown to maximise achievement outcomes for students in inclusive settings. This highlights the value of teacher education programs to enable PSTs to view themselves as competent when it comes to teaching students with a wider range of needs.

Concerns about Inclusion

A variable that has recently been investigated in relation to inclusive practice is teacher concerns about inclusion. Whilst this variable has not been researched to the same

degree as attitudes and teaching-efficacy, it is an influential construct when attempting to address barriers to inclusion. Concerns are conceptualised as teacher's personal experiences when they are attempting to instigate inclusive education reforms. More specifically, Hall (1979) defined the multifaceted construct as the motivations, perceptions, attitudes and feelings that teachers experience related to implementing an innovation. For example: 'I am worried that I cannot individualise this task for students with autism'. Furthermore, concerns are related to feelings of uncertainty that teachers may or may not experience in response to changing or new demands (Yan & Deng, 2019).

Identifying specific barriers, as reported by teachers, appears to be a potentially positive research agenda that may lead to teacher's better enabling students to learn and participate in inclusive classes and schools. Forlin and Cooper (2013) outlined that the feelings of being underprepared (an influential concern) were associated with teachers feeling high levels of stress such as headaches, depression, and fatigue, as well as feeling helpless, embarrassed, frustrated, and guilty. In contrast, currently researchers have suggested that students with disability are likely to receive high quality education in the classrooms of teachers who have lower degrees of concerns about inclusion (Sharma & Sokal, 2016). Therefore, focusing on the perceived concerns of educators (at any stage of their career) will help to understand barriers to implementation of inclusive education reform initiatives (Sharma, Forlin, Loreman, & Earle, 2006).

While the philosophy of inclusion is often understood to be necessary in the development of inclusive schools, teachers express concerns about how to effectively implement inclusion. Predominant concerns have been shown to be related to a lack of resources and time to implement inclusion (Forlin & Chambers, 2011; Horne & Timmons, 2009). Additional concerns relate to class size, experience and education, availability of support, and expertise (Sharma et al., 2006; Smith & Smith, 2000). The notion of lack of

expertise is found commonly throughout the literature as both pre-service and in-service teachers expressed concern regarding a lack of preparedness to effectively address student behaviour (Forlin & Cooper, 2013).

In the Australian context, Forlin, Keen and Barrett (2008) investigated teacher's concerns with regard to including students with intellectual disabilities. Both primary and secondary teachers expressed two main types of concerns. Firstly, their ability to account for varied behaviours of children and to engage them while giving clear commands and setting high expectations, and secondly, perceptions of their own competencies. Horne and Timmons (2009) focused on developing an understanding of secondary teachers support needs. It was concluded that while the philosophy of inclusion was embraced, teachers had concerns over their efficacy to act inclusively in the classroom. The concerns were regarding the adequacy of their training, sufficient time, planning and resources as well as support from administration and other colleagues (Horne & Timmons, 2009).

Variables Associated with Concerns

With regard to concerns specifically relating to inclusion, Round, Subban and Sharma (2016) found that teachers were only slightly concerned about inclusion, specifically, they were concerned about the availability of resources to assist with inclusion. This included not only teaching materials but also access to support staff such as teacher's aides. Additionally, other concerns were related to academic standards, degree of teacher confidence (related to prior experience) and level of teacher education (training). To overcome such concerns, the authors suggest that feelings of confidence, previous positive experience, and the role of administration need to be taken into account when designing teacher education experiences at universities (Round et al., 2016).

Attitudes of teachers are an influential variable related to teachers concerns. Indeed, Changpinit, Greaves and Frydenberg (2007) examined the attitudes and concerns of 702 in-service educators preparing to teach in inclusive classrooms in Thailand. They found that there was a significant negative correlation between participants' attitudes and concerns. For example, participants who had relatively positive attitudes towards inclusive education were likely to have lower degree of concerns about inclusion or vice versa.

Level of experience has also been shown to be associated with different concerns expressed by teachers. In the USA, Scruggs and Mastropieri (1996) investigated teachers practising in mainstream classrooms with no formal training in inclusion. A number of concerns regarding inclusion were expressed by the teachers. The most common concerns included their ability to support and teach those with additional needs.

Reducing Concerns during Teacher Education

With regard to PSTs, the aim of teacher education opportunities is often to reduce concerns relating to inclusion. Sharma et al., (2008) investigated the impact of training on PST attitudes and concerns about inclusive education and the attitudes towards students with disabilities. Results indicated that the content and pedagogy of a program are the most significant predictors of PST attitudes, sentiments and concerns. The authors discovered that a course-work subject was effective at decreasing concerns when legislation for inclusion was emphasised and when a focus was on effective and practical inclusive teaching practices (Sharma et al., 2008).

Furthermore, Forlin and Chambers (2011) examined how confidence in teaching students with disabilities and knowledge about local policies impacted PST attitudes and concerns. They reported that level of confidence and knowledge of legislation were positively and significantly correlated with attitudes towards including students with disabilities and

conversely negatively correlated with concerns about inclusion. They also found, however, that increasing knowledge about legislation and policy related to inclusion, and improving confidence did not likewise address the participants' concerns or perceived stress associated with having students with disabilities in their classrooms. It was concluded that both the content and context of the course was important in reducing PST concerns.

No matter the specific content and course design, it seems that addressing concerns during PST education could be an influential time to indirectly help PSTs feel more positive towards IE (Beacham & Rouse, 2012; Shade & Stewart, 2001).

Intentions to Teach in Inclusive Classrooms

According to the TPB, voluntary action is best determined by intentions (Ajzen, 1985, 1988, 1991; Fishbein, 2009). Intentions are an indicator of a person's readiness for actual action. Ajzen (2011) defines intentions as a person's readiness to perform a behaviour. This sense of readiness can be operationalised in a number of ways: by asking individuals whether or not they intend to engage in a behaviour, expect to engage, are planning to engage, will attempt to engage and/or if they are willing to engage in a certain behaviour. In a meta-analysis, Sheeran (2002) found that the overall correlation between intent and actual behaviour was highly correlated, providing evidence to suggest that the variables in the TPB most closely relate to intentions, which is conceived as a proximal antecedent to actual behaviour.

Variables Associated with Intentions

The attitudes of teachers are an important variable related to teacher's intentions to include students with disabilities in inclusive classrooms. Ahmmed, Sharma and Deppler (2014) examined the influence of teacher attitudes, teacher efficacy and perceived school

support on teacher intentions to include students with disabilities in regular classrooms. The authors also examined the predictive utility of demographic variables in explaining teacher intentions. Results revealed that teacher attitudes, teacher efficacy and perceived school support were found to be significant predictors that influenced teachers' intentions to include students with a disability in government primary schools in Bangladesh. Furthermore, a teacher's length of teaching experience significantly influenced their intentions towards inclusion. Overall, perceived school support was the strongest predictor variable, influencing teachers' intentions. This suggests that when teachers believe that they are in a supportive environment, they are more likely to intend to practice inclusively. Furthermore, this study once again highlights the importance of both positive attitudes and self-efficacy influencing teacher's intentions to act inclusively.

Batsiou et al., (2008) examined the attitudes and intentions of Greek and Cypriot teachers towards including students with special educational needs. The study focused on investigating the relationships among attitude, subjective norm, knowledge, self-identity, information and intention. The theoretical framework was a modified version of the TPB specifically designed for the Greek language and culture. Significant correlations were found between intention and attitude, intention and knowledge, attitude and subjective norm, and attitude and knowledge. An additional line of research focused on the service delivery's effect on a student's (without disability) intention to include their peers with a disability (Campbell, 2010). This research was conducted with students in grade three, four and five and found that being in inclusive classrooms had a statistically significant positive impact on student intentions to include their peers.

Yan and Sin (2014) examined the extent to which the TPB could be used to predict and explain the intentions and behaviour related to inclusive education for primary and secondary school teachers. This study is a notable attempt at including all components of the

TPB. A five-part survey of 841 teachers in Hong Kong focused on attitude towards inclusive education, subjective norm, confidence in their professional training (perceived behaviour control), intention and behaviours. The structural equation modelling demonstrated that the TPB fitted the data well and indicated that attitude, social pressure, confidence in professional training significantly predicted intention. Also, intention and confidence were found to be a significant predictor of behaviour. Importantly, subjective norm (conceptualised as social pressure) was the most powerful predictor of intention, followed by perceived behaviour control and then attitude. Moreover, both intention and perceived behaviour control exerted significant predictive power on behaviour. Interestingly, perceived behaviour control had a larger effect. However, these results should be taken within the context of two key limitations. Firstly, behaviour was not directly measured. Instead of using an observational measure, teachers self-reported their behaviours. Self-report measures have the potential to be influenced by social-desirability. Secondly, given intention is a variable that is 'future-focused', it should not be assessed simultaneously with behaviours. Ideally, it should be measured just prior to investigating behaviours.

Increasing Intentions through Teacher Education

Teacher education courses have the ability to positively influence the participants' intentions to teach in inclusive classrooms. Aiello and Sharma (2018) investigated the possible impact of a university teacher education course for future Learning Support Teachers (LSTs). LST roles are to support the mainstream teacher in a classroom where students with additional needs are present. The results confirmed the significant role of teacher education to positively influence teacher attitudes and self-efficacy and reduce concerns which in turn stimulate the intentions needed to trigger inclusive practices (Aiello & Sharma, 2018).

Simply having intentions to act inclusively does not guarantee that action will occur (Ajzen, 1985, 1988, 1991; Fishbein, 2009). Intentions and observed behaviours may not correspond if there is a significant amount of time between the intent and the action. A lack of resources and opportunity to act out inclusive practices may contribute to this mismatch (Ajzen, 2011). In line with the TPB, teachers will intend to perform inclusive behaviours if they have positive attitudes, support and resources, and have self-efficacy in their ability to achieve a particular inclusive action (Ajzen, 2011). This provides the justification for attempting to investigate the connection between inclusive intentions and inclusive practices.

Inclusive Practices

Sharma and Sokal (2016) used behavioural observations of classroom teachers to investigate if a significant relationship existed between teachers self-reported attitudes, concerns (conceptualised as a practical barrier at the same level as a demographic variable), efficacy to teach in inclusive classrooms and their actual classroom behaviour. A five-part questionnaire was used to collect data. This included: a survey investigating the demographic variables of teachers (age, gender, highest educational qualification obtained, knowledge of local education acts and policies related to children with disabilities, and the level of confidence in teaching students with disabilities), their attitudes, concerns and teaching efficacy for inclusion. This study used a newly developed measure of inclusive practices. Results indicated that teachers who were highly inclusive in their classroom practices were likely to have significantly lower degrees of concerns as well as positive attitudes to inclusion. Given the small sample size and no explicit measure of teacher's intentions, the results of this study should be interpreted with some degree of reserve. However, the current research in this domain suffers from two main limitations. Firstly, attitudes and other theoretical variables (e.g. intentions) have often been investigated separately from classroom

practices. Secondly, even when practices have been considered, self-reported data or intentions have been used as an indicator of observable practices (Dueck, 2003; Hwang & Evans, 2011). These caveats illuminate the gap between theory and practice and provide the rationale for focusing on actual observations of teaching to indicate inclusive teaching practices.

Further, attempts have been made to classify specific teacher's practices overall. An example is the European Agency for Development in Special Needs Education (EADSNE) development of the 'Profile of Inclusive Teachers'(EADSNE, 2012). While the agency recognised that teaching is a complex task and that condensing all practices into a single set of behaviours is difficult, they argued that it was possible to identify areas of competence that could be applied across contexts. These areas of competence included the teacher's knowledge, attitudes and skills. Such competences are seen to be underpinned by four interrelated core values and are articulated in terms of competences including: 'valuing learner diversity', 'supporting all learners', 'working with others' and 'continued professional development'. 'Valuing learner diversity' refers to teacher's views of difference and conceptions of inclusive education. 'Supporting all learners' refers to promoting the academic, social and emotional learning of all learners as well as effective teaching approaches in heterogeneous classes. 'Working with others' refers to how teachers work with parents, families and other professionals. Finally, 'continuing professional development' refers to teacher's being reflective practitioners and initial teacher education as a foundation for ongoing professional learning and development. The 'Profile of Inclusive Teachers' represented a noteworthy attempt at classifying inclusive practices of teachers and may serve as a framework to interrogate inclusive practice, however, this profile was not founded on actual classroom observations (EADSNE, 2012).

A recent review by Finkelstein et al., (2019) (Refer to Chapter 3) explored teacher's inclusive practices with a specific focus on understanding the practices of teachers within classrooms. Understanding what inclusive teacher practices 'look like' is essential in determining if inclusion is happening or if it simply remaining idealistic rhetoric. To achieve this end, structured tools, which made use of observation techniques, were reviewed. The items from all tools were collated and the relative importance of actual behaviours inferred. Thematic Analysis of the total pool of indicators/items of observable inclusive teacher practices were organised into five themes: 'Collaboration and Teamwork', 'Determining Progress', 'Instructional Support', 'Organisational Practices' and 'Social/Emotional/Behavioural Support'. These themes gave rise to an 'Inclusive Teacher Classroom Practices Profile'. Collaboration and teamwork were defined as: The teacher's practices within this category relate to how they work with other professionals in the classroom, including other teachers, families of students, and other professionals. Determining progress was defined as how teachers assess and monitor student individualised outcomes. Instructional support was defined as the specific skills enacted relating to the focus of instructional content and how this content is transmitted to the learner. Organisational practices were defined as what teachers do to arrange and oversee the set-up of the classroom and how they promote access to the classroom environment for all students. Social/Emotional/Behavioural Support' was defined as how teachers facilitate a positive classroom environment where student's social, emotional and behavioural needs are accounted for and met. Implications for the use of the profile were also discussed with regard to teacher development. That is, the profile could be used as a catalyst to prompt and guide the analysis and measurement of teacher's practices in the classroom. Given teachers want and need practical experiences in the classroom (Shaddock, Hoffman-Raap, Smith, Giorcelli, & Waddy, 2007) the concepts uncovered in this analysis represented an important foundation

through which to interrogate classroom practices and prompt critique of classrooms no matter the specific context. Thus, the study contributed to both theoretical and practical knowledge that pre-service and in-service teachers can use to develop their inclusive practices.

Research Questions

The present research stems from the recognition that there is a need to understand the practice of PSTs in implementing inclusion using behavioural observations. However, it is necessary to understand these practices in conjunction with the aforementioned theoretical constructs including attitudes, teaching-efficacy, concerns and other potentially influential background variables. Therefore, the relationships between attitudes, teacher's self-efficacy, concerns, intentions and other background variables of PSTs enrolled in the inclusive education Subject will be examined. This research is novel in that observable teacher practices will also be investigated and the impact of the inclusive education Subject assessed. In addition, predicting intentions of PSTs will allow for a better understanding of their practices and potential avenues to bolster their skill set prior to working in the field.

The current research consisted of two studies. The purpose of Study 1 was to determine which variables predicted PST intentions to teach in inclusive classrooms before participating in the course-work Subject on inclusive education and after completing the Subject. These different time-points were specified as pre-stage and post-stage. A secondary purpose was to understand the impact of the newly developed coursework Subject on PST attitudes towards the following: inclusion, teaching efficacy for inclusive education, levels of concerns about inclusion, and intentions to teach in inclusive classrooms.

The following research questions were posed:

- Research Question 1: What were the levels of attitudes, concerns, efficacy and intentions expressed by PSTs at pre-stage and post-stage towards inclusive education?

- Research Question 2: Was there a significant relationship between PST's attitudes and intention to teach in inclusive classrooms before (and after) undertaking the Subject on inclusive education?

- Research Question 3: Was there a significant relationship between PSTs' teaching-efficacy and their intention to act out inclusive teaching practices before (and after) undertaking the Subject on inclusive education?

- Research Question 4: Was there a significant relationship between PST's concerns and intentions to teach in inclusive classrooms before (and after) undertaking the Subject on inclusive education?

- Research Question 5: Were PST's intentions to teach in inclusive classrooms predicted from their attitudes, sense of teaching efficacy and concerns (before and after taking the Subject)?

- Research Question 6: Were there significant relationships between the background variables and preservice teacher's attitudes, teaching efficacy, concerns and intentions (both before and after the Subject)?

- Research Question 7: Does taking part in the inclusive education university Subject have an impact on PST's attitudes, concerns, teaching efficacy and intentions to teach inclusively?

- Research question 8: Was there a difference on measures of attitudes, concerns, teaching efficacy and intentions between the PSTs of Campus A and B following participation in the inclusive education Subject?

- Research Question 9: What do PSTs perceive to be facilitators and barriers to inclusive education (both pre/post taking part in the Subject)?

The purpose of Study 2 was to understand the relationship between PST affective variables (attitudes, self-efficacy, concerns) and intentions with regard to inclusive teaching practice. To achieve this end, a combination of the post-stage questionnaire and observational data was utilised. Thus, the following research question was proposed:

- Research Question 10: Was there a significant relationship between PST's intentions, teaching efficacy, concerns, attitudes, and their observable inclusive practices after taking part the Subject on inclusive education?

Chapter 3: The inclusive practices of classroom teachers: a scoping review and thematic analysis (published paper)

Overview of published paper

This chapter presents a published study included in this thesis. Following on from Chapters 1 and 2, this study elucidates key concepts relating to how inclusion is defined and what it means to enact inclusive practices in the classroom. More specifically, the overarching purpose of this systematic scoping review was to understand what was considered high quality inclusive teaching practices when conducting behavioural observations in school classrooms.

Understanding and investigating teachers' practices in the classroom can help ensure that high quality inclusive practices are implemented consistently (Erten & Savage, 2012). However, research into this 'real-world' understanding of practices in the classroom has often been neglected compared with theoretical or philosophical models of practice (O'Neill & Stephenson, 2014). This is particularly troubling given often pre- and in-service teachers report feeling unprepared for work in inclusive classrooms.

The review investigated research that relied on observational data. This method of data collection was recognised to be an important (rarely used) method for understanding inclusion. The aims of this scoping review were two-fold and aligned with the following two research questions: 1) How can the tools be used to define and conceptualise 'inclusion'? 2) What types of high-quality inclusive practices should teachers use in the classroom? In working towards these research questions, the observation guide developed through this study may be used to anchor and guide authentic classroom observations, better target reflective practice, and promote and provide structure to school, teacher and self-assessments. Thus, this study adds to the limited literature on understanding inclusive classroom practices and the findings may inform the development of pre/in-service teacher education opportunities.

In the next section, a publication declaration (required by Monash University's Faculty of Education) precedes inclusion of the systematic scoping review paper (Study 1).

Declaration for Thesis Chapter 3

The ideas, development and writing-up of this paper was the principal responsibility of myself, the student, working within the Psychology Activities Department, Faculty of Education under the supervision of Professor Umesh Sharma, Dr Brett Furlonger and Dr Christine Grove. In the case of Chapter 3, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Study conceptualisation	70%
Data collection, data entry and data cleaning	100%
Analysis and interpretation of results	70%
Writing the paper for publication	80%
Management of publication process	100%

The following co-authors contributed to the work. If co-authors are students at Monash University, the extent of their contribution in percentage terms must be stated:

Name	Nature of Contribution	Extent of contribution (student co-authors only [%])
Professor Umesh Sharma	Study conceptualisation, interpretation of results, and editing paper for publication	N/A
Dr Brett Furlonger	Ongoing conceptualisation and editing	N/A

The undersigned hereby certify that the above declaration correctly reflects the nature and extent of the candidate's and co-authors' contributions to this work.

Candidate signature: ....Date: 09.12.2019

Main Supervisor signature: ....Date: 09.12.2019

The inclusive practices of classroom teachers: a scoping review and thematic analysis

Simon Finkelstein, Umesh Sharma & Brett Furlonger

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The inclusive practices of classroom teachers: a scoping review and thematic analysis

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ABSTRACT

There is a consensus that what teachers do in the classroom directly impacts student's learning. Currently, however there is a paucity of data identifying which teaching practices actually support learning within an inclusive classroom, especially data derived from direct observations of teachers. Thus, research-based guidance regarding how best to target observations of inclusive teachers warrants further investigation. The purpose of this scoping review, therefore, was to determine which teacher practices are related to high-quality inclusion, when conducting classroom observations. Extracted data from the tools that relied on direct observation methods included concepts and definitions of inclusion, as well as all indicators of inclusive practice. Thematic Analysis of observable inclusive teacher practices were concentrated into five themes: 'Collaboration and Teamwork', 'Determining Progress', 'Instructional Support', 'Organisational Practices', 'Social/Emotional/Behavioural Support'. These themes were used to create a 'guide' for conducting in-class observation of inclusive teachers. Implications for the use of this 'guide' and teacher education are discussed.

Introduction

It appears that international policy and legislation is now in line with the inclusive education agenda, yet the specific meaning of inclusive classroom practice is still not clear (Slee 2001). International agreements, (such as the UNESCO Salamanca Statement) have provided a documented base from which exclusionary educational practices can be challenged, the value of diversity promoted, and the provision of quality education for all students endorsed (UNESCO 2008). Such theoretical notions of inclusion have given rise to varied policies depending on the interpretations of stakeholders across countries. While policy and legislation are important for shaping the context within which to discuss and research inclusion, translating these ideas into actual school reforms and practices does not automatically follow (Forlin 2006; Xu 2012). In reality, students continue to be disadvantaged by deficit-focused models of education which emphasise segregation, rather than positive inclusive practices (Andrews et al. 2015). Thus, simply espousing idealistic policies and mandating legislation does not guarantee inclusion in practice.

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A complicating reality

Currently, it is accepted that 'mainstreaming' (i.e. placing all students in regular classroom settings irrespective of learning needs) can lead to positive academic and socio-emotional outcomes for all students (with and without disabilities) (Ruijs and Peetsma 2009). Nevertheless, an authentic inclusive school requires more than simply placing all students in the same environment A complicating reality is that detailing what inclusive education is and what it means to act 'inclusively' has thus far lacked consensus (Forlin et al. 2013). This lack of consensus is troubling, given that in order to understand how best to create inclusive schools, researchers and stakeholders need to have a realistic conceptualisation of 'what it is' (Berlach and Chambers 2010).

Linked to a lack of consensus is that many publications focusing on inclusive education do not provide an explicit definition of inclusion. Therefore, conceptualisations and definitions are often inferred from the focus of the inclusive education publication (Ainscow, Booth, and Dyson 2006). Given no definition of inclusion has been universally accepted, developing a universally accepted definition may represent a positive step towards developing an inclusive practice (Florian 2014). However, Mitchell (2015) considers that definitions with a singular focus have the potential to create a false dichotomy and risk becoming overly simplistic. In other words, inclusion can be interpreted as either happening, or not happening. Indeed, Mitchell (2015) has interpreted inclusion as a concept with multiple underlying values and processes, suggesting it provides a more realistic interpretation that accounts for the complexity in schools and the multiple mutually influential values underlying the concept.

Broad vs. narrow definitions of inclusion

Ainscow, Booth, and Dyson (2006), argue that there is an important distinction relating to how inclusion is defined and this relates to the breadth and quality of definitions. Overall, 'broad' definitions focus on how schools should incorporate supports for all students and is global in focus. In contrast, 'narrow' definitions focus on a specific group of students that may have additional educational needs. Narrowly focused definitions tend to deal with education for students with disability, a focus on placement and the social/academic needs of a specific group of students. These conceptualisations are limited in their scope and do not necessarily account for the quality of education and what teachers actually do to implement inclusion for all students. Broadly focused definitions concern all students, their social/academic needs and creating communities through the processes of inclusion.

Attempts have also been made to categorise the various definitions according to themes. Goransson and Nilhom (2014) conducted a search of definitions from 2004–2012. Their results were organised into four different interpretations of inclusion which give rise to four qualitatively different categories of definitions. These were organised hierarchically with each definition category articulating a more holistic idea about what constitutes inclusive education. The four categories included: A. a placement definition, which focused on the placement of students with special educational needs in mainstream, B. a specified individualised definition, with inclusion defined as meeting the social/academic needs of students with disability, C. a general individualised definition that defined

inclusion as meeting the social/academic needs of all students and D. A focus on the creation of an inclusive community (Göransson and Nilholm 2014). Using Ainscow, Booth and Dyson's (2006) terminology, categories 'A' and 'B' can be interpreted to be narrow in approach, whereas 'C' and 'D' are broader in their focus.

The importance of context

No matter the quality of a definition, or the specific type, it is clear that the parts of inclusion need to fit together in a reasonable way, termed coherence. This refers to the idea that the various parts of an educational system and the systems themselves are consistent and connected with regard to inclusive education (Ferguson 2008). Hence, it is not appropriate to only have general overarching policies or definitions without accounting for schools organisational and teaching policies as this conclusion acknowledges the importance of context when understanding inclusive education. Thus, inclusion can take on different forms depending on the context and the specific needs of stakeholders (Florian 2005). Accepting this definition of inclusion provides an insight as to why an understanding of what inclusion 'looks-like' is particularly difficult.

Despite the challenges in accepting a contextually bound definition it is the one preferred in the present study and includes three key principles: 1. the processes of increasing the participation of students in, and reducing their exclusion from, the curricula, cultures and communities of local schools; 2. restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in their locality; 3. the presence, participation and achievement of all students vulnerable to exclusionary pressures, not only those with impairments or those who are categorised as 'having special educational needs' (Ainscow, Booth and Dyson, 2006, 25). It follows, then, that these three key principles mean that inclusion is: aspirational in nature; concerned with all students, focusing on their presence, participation and achievement; linked to exclusion in that barriers are made explicit and actively dismantled (Ainscow, Booth, and Dyson 2006). Moreover, educational practice is not considered static and therefore commonalities can not necessarily be transplanted across contexts. Schools, therefore, are in the position of needing to adopt inclusive principles while also interrogating barriers which impede inclusion (Forlin 2013).

For the purposes of this study, inclusive practices are conceptualised as a higher order construct which encapsulates aspects of behaviour. Practices allow for the processes of knowing in the classroom and learning within organisations to be articulated and can be considered a symbol of inclusion being acted out (Gherardi 2008). In contrast, behaviours are specific and observable and do not necessarily make a connection between a specific context and outcomes. Ainscow (2005) defines inclusive practices as actions which attempt to overcome barriers to the participation and learning of students (Ainscow 2005). Given the current review is focused on teacher pedagogy and practice, 'inclusive practice' is used to refer to any strategies/behaviours that teachers use to ensure that students with diverse abilities can learn in regular classrooms.

Teacher's attitudes

Despite the recognised importance of leaders and school administrators (Hoppey and McLeskey 2013), it is classroom teachers who are largely responsible for implementing

inclusive principles and breaking down barriers to inclusion. Importantly, teacher's attitudes may act to facilitate or limit the successful implementation of inclusive policies given their direct involvement in the classroom (Avramidis, Bayliss, and Burden 2000). Thus, inclusive pedagogy is an important concept as it focuses on what inclusion, as performed by the teacher, 'looks' like and what goes into making it happen. Inclusive pedagogy is defined as the teacher's skills and knowledge with regard to making inclusion work (Florian and Black-Hawkins 2011). More specifically, this conceptualisation endorses the idea of extending mainstream education, to all. Also, it is based on the central tenant of 'transformability'. That is, the idea that ability is not fixed but all students can develop and learn. This approach encourages teachers to accept ownership of the process and a commitment to all students, along with adopting positive attitudes and the belief that all students are capable of learning and contributing meaningfully to the classroom (Ahmmed, Sharma, and Deppeler 2012). At the same time, teachers must be highly skilled practitioners (Florian 2012).

Teacher's skills, knowledge and experiences

Along with positive attitudes, it is of value to outline the collection of skills, knowledge and experiences teachers need for inclusive education to become a reality. In a review of the evidence relating to theory and practice for inclusive education, the Australian Research Alliance for Children and Youth (ARACY) outlined what is considered 'good practice' (Forlin et al. 2013). A number of different approaches were identified including: initial teacher education and in-service learning quality teaching, a definition of quality teaching and inclusive pedagogy, adaptive curricula, alternative curricula, technology, universal design for learning and individual planning. Similarly, Alquraini and Gut (2012) also described a range of successful practices as identified in numerous studies on inclusive education, including: instructional practices to promote access to the general curriculum for all, peer support for students, assistive technology, administrative support, professional development training for educators, and effective involvement and support of parents or families in inclusive settings (Alquraini and Gut 2012).

An attempt to classify specific teacher's inclusive practices was made by the European Agency for Development in Special Needs Education through the development of the 'Profile of Inclusive Teachers' (EADSNE 2012). While the agency recognised that teaching is a complex task and that condensing all practices into a single set of practices is difficult, they argued that it was possible to identify areas of competence that could be applied across contexts. These areas of competence included the teacher's knowledge, attitudes and skills. Such competencies are seen to be underpinned by four interrelated core values and are articulated in terms of competences including: valuing learner diversity, supporting all learners, working with others and continued professional development. Valuing Learner Diversity refers to a teacher's views of difference and conceptions of inclusive education. Supporting all learners refers to promoting the academic, social and emotional learning of all learners as well as effective teaching approaches in heterogeneous classes. Working with others refers to how teachers work with parents, families and other professionals. Finally, continuing professional development refers to teacher's being reflective practitioners and initial teacher education as a foundation for ongoing professional learning and development. This

profile represented a noteworthy attempt at classifying inclusive practices of teachers but is not all-encompassing.

An under-examined research area

It is clear that what is considered positive inclusive teacher practices vary throughout the relevant literature. Also, while the abovementioned reviews and profiles attempt to categorise practice broadly, previous researchers have not typically focused on teachers' classroom practices. This is of particular concern given the disconnect between theory and the reality of classrooms (Grima-Farrell, Bain, and McDonagh 2011). In order to make inclusion a reality in the classroom, Shulman and Wilson (2004) advocated the need for better preparation and support of teachers. They highlighted: knowledge and theory, ethical and moral attitudes and pragmatic skills, as target-areas to improve inclusive education practices (Shulman and Wilson 2004). Furthermore, these reforms must take place within an inclusive culture, which values ever-evolving inclusive practices, and produces inclusive policies (Booth, Ainscow, and Kingston 2006). Understanding what teachers actually do and gathering 'snapshots' of inclusive teacher practices remains an under-examined research area on which the current review is focused. Behavioural assessment through direct observations represents a methodology that can be used to gather data regarding how practices occur on site, in naturalistic environments. This methodology relies on first-hand accounts of practices rather than having to infer from second-hand reports. Therefore, researchers can gain insight into specific environments that would otherwise not be uncovered. If conducted in a standardised manner, direct observation allows for the collection of relatively objective, unbiased data and can have strong ecological validity (Moyles 2002). Yet, research examining the effectiveness of inclusion and its impact on student outcomes seldom includes direct observation methods (Dyson et al. 2004). Overall, when compared to theoretical or philosophical models of practice, little research has focused on evidence-based practices (O'Neill and Stephenson 2012). Therefore, a more consistent evidence-based approach to understanding teacher's practices in the classroom is warranted.

Evidence-based practice began in the medical field and subsequently extended to all fields of inquiry, including education. Bourke and Loveridge (2013), in their article, examined the process of engaging postgraduate students in evidence-based practice in education course. They outlined models of evidence-based practice including: the collection and analysis of multiple sources of evidence, using current research evidence; trusting professional judgement; and collaborating with a team around the learner (Bourke and Loveridge 2013). Therefore, teachers who are reflective practitioners who subscribe to the aforementioned model are likely to be engaging in evidence-based practice which helps create highly skilled practitioners.

In order to foster these skills in teachers, quality teacher education programs are vital (Van Laarhoven et al. 2007). Also, a particular focus in pre-service and in-service teacher education should be on authentic practical experiences which give teachers the opportunity to demonstrate skills (Shaddock et al. 2007). However, overall, teacher education programmes continue to provide inadequate preparation and opportunities for teachers to be working with diverse student populations (Slee 2011). This phenomenon has been reported internationally (EADSNE 2010; UNICEF 2012). More specifically, it has been

reported that a primary challenge for teachers in OECD countries was their lack of pre-paredness to be working in diverse classrooms (Schleicher 2016). In developing nations, specifically 13 countries in the Asia-Pacific region, it has been reported that inclusive education is often seldom effected and if it is, it is implemented in a discrete manner, without clear structure (Sharma et al. 2013). While isolated examples of quality teacher education programmes and models exist (Florian and Rouse 2009; Sharma 2018), working towards bolstering and refining teacher education is a domain that requires more quality research.

In order to inform research and pre/in-service teacher education programmes, it is necessary to understand inclusive teacher practice within the context of classroom obser-vation. Examining teachers' practices within naturalistic environments is an important step towards understanding what constitutes high-quality inclusive practice, how it can be realised and more consistently implemented (Erten and Savage 2012). This 'real-world' understanding of practices in the classroom, builds upon previous research like the European Agency for Development in Special Needs Education development of the 'Profile of Inclusive Teachers' (EADSNE 2012) and the ARACY review (Forlin et al. 2013) by taking into account what is actually experienced by the students in the classroom.

Summary

There is a need to understand what inclusive practices are and 'if' and 'how' they are being implemented. The current review was undertaken to examine research that made use of observational data because it was recognised that observation tools and frameworks rep-resented an important method for understanding inclusion in practice. For the purpose of this study, the term 'tool' was used to indicate any structured observation scale or organ-isational framework used to measure (or organise data) aspects of inclusive education in the classroom. Moreover, the aims of this scoping review were two-fold and aligned with the following two research questions:

(1) How can the tools be used to define and conceptualise 'inclusion'?
(2) What types of high-quality inclusive practices should teachers use in the classroom?

Methods

Study design

Given the research questions were exploratory in nature, a scoping review methodology was employed in line with the Joanna Briggs Institute framework (Peters et al. 2015). Scoping reviews are used to uncover key concepts relating to the research questions as well as to clarify definitions and understand the conceptual boundaries of a research area (Peters et al. 2015).

Firstly, the objectives and research questions were established. Next, key search terms were developed through conducting preliminary searches. After which, a review protocol was developed and data extracted from the included studies. Data were drawn from the included studies specifically relating to the concepts/definitions of inclusive education as well as the observational items/indicators relating to inclusive classroom practice.

Thematic analysis was conducted according to an established procedure to analyse the observational items/indicators (Braun and Clarke 2006).

Search strategy

A three step-search strategy was undertaken. Firstly, a systematic search process was conducted using three electronic databases: ERIC, PsycINFO, and SCOPUS. The search was limited to studies published from 2000 to March 2017. The key search terms were developed through an iterative process as the reviewers became more familiar with the evidence base. Subject terms used in this search included combinations of 'inclusi*', 'mainstream*' 'measur'*, 'evaluat*', 'assess*' 'indicator', 'index', 'tool', 'instrument', 'rating', 'scale', 'model', 'framework', 'questionnaire', 'checklist', 'profile', 'test' 'education*' and 'disabilities'. This initial search was proceeded by an analysis of the title, abstract and index terms of the retrieved papers. Secondly, an additional search using the finalised search terms was performed across all databases. Thirdly, hand-searching was conducted to identify studies that may not have been located in the main searches (Hopewell et al. 2007). This involved reviewing the reference lists from the screened studies.

Importantly, researchers have used a number of different terms (e.g. framework, checklist, instrument etc.) and methods to investigate classroom practices. Therefore, as noted above, a broad array of synonyms was used to locate studies that made any attempt to systematise the collection of observation data. For the purpose of this study, the term 'tool' was used interchangeably to indicate any structured observation scale or organisational framework used to measure (or organise data) aspects of inclusive education in the classroom. This includes tools that were developed for professional development as well as tools that measured the presence and/or quality of inclusive education.

A Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; (Liberati et al. 2009)) statement flowchart (Figure 1) was constructed to clearly outline how the included studies were selected.

Inclusion/Exclusion criteria

An article had to meet the following criteria to be included in the review:

- The study is/was primarily focused on inclusive education. The study utilised a tool that fully (or in part) focused on the implementation of inclusive education which made use of/promoted direct observation techniques.
- The study took place in an inclusive pre/primary/high school or classroom setting
- The article was published between the year 2000 and March 2017. The article was peer-reviewed.
- The article was published in English.

It is necessary to clarify two important justifications for the above criteria. Firstly, the notion of being 'focused' on inclusive education refers to whether or not an explicit definition or conceptualisation of inclusion was provided and/or principles of inclusion could be inferred from the focus of the study and tool. Secondly, only articles published from 2000 to 2017 were included in order to make the task of the review manageable
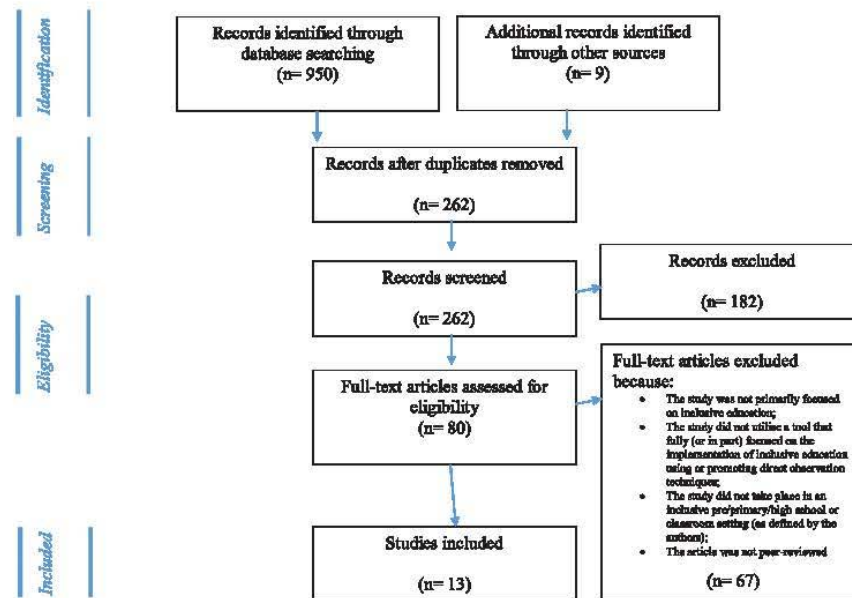
Figure 1. PRISMA chart outlining study selection process.

and locate contemporary studies. Articles which only provided general narrative guidance without a tool were excluded. Also, articles that made no mention of inclusion or inclusive principles were excluded.

Prior to finalising which studies were included, 44 (55%) full-text articles were selected at random by two independent raters and assessed for eligibility for inclusion according to the inclusion criteria. These raters were the second and third authors of this current paper. Both raters have completed their graduate and post-graduate studies in inclusive and special education and have published extensively in the field of inclusive education. The independent raters coded the list of studies into three categories: relevant, uncertain, and irrelevant. When differences did arise, resolution occurred through examination of the full text and a discussion between the three reviewers, until the agreement was found. There was 91% agreement regarding the rating of relevance. The inter-rater agreement was calculated to be 91%.

Thematic analysis procedure

This process was conducted according to Braun and Clarke's (2006) procedure for conducting the thematic analysis. This flexible approach enabled the integration of qualitative and quantitative studies. This process consisted of six steps. Firstly, the entire data set was read through three times and initial ideas for codes were recorded. Secondly, all items were systematically reviewed and manually coded. Also, codes were matched up with extracts that were deemed important examples. Thirdly, having coded and collated all data, this information was sorted into potential themes. This involved analysing the relationships

between various codes and organising them according to preliminary themes. Fourth, the themes were reviewed and refined. Fifth, the themes were defined and named. Lastly, all codes were tabulated under the finalised themes along with corresponding extracts that typified the themes.

Data extraction

Given the focus of the review was on tools that make use of observational items/indicators, the studies themselves were not the primary focus of the analysis. However, a summary table provides an overview of the studies from which the tools were drawn. The 13 included studies were reviewed for the following data: tool; source/study type; original source of tool; purpose of tool; explicitly defined or meaning inferred; category of conceptualisation; single or multiple orientation; broad or narrow focus; methods; country and journal. In order to answer the first research question all definitions/conceptualisation regarding inclusive education, inclusive practice and inclusive pedagogy were extracted and/or inferred from tools. The tools were also analysed with regard to four key features. Firstly, whether inclusion was explicitly defined or inferred from the focus of the tool. Second, whether or not the ideas of inclusion were broad (focused on education for all and/or focused on building inclusive communities) or narrow (primarily concerned with students with additional needs and their placement). Third, whether the conceptualisations of inclusion were focused on a single feature of inclusion or multiple underlying facets. Finally, with what category of definition the features of the tool were most aligned. The categories included: A. a placement definition, which focus on the placement of students with special educational needs in mainstream, B. a specified individualised definition, with inclusion defined as meeting the social/academic needs of students with disability, C. a general individualised definition that defines inclusion as meeting the social/academic needs of all students and D. A focus on the creation of an inclusive community (Göransson and Nilholm 2014). With regard to the second research question, all items and indicators were extracted and collated to conduct a thematic analysis of the types of practices that were the focus of the observation tools. Given the exploratory nature of this analysis, any item/indicator that promoted the use of/used observational methods was included.

Results

Thirteen studies were included in the review. Extracted data from these studies are presented in Table 1.

The findings in relation to the first research question (How can the tools be used to define and conceptualise 'inclusion'?) are presented below. When examining how the reviewed studies were used to define inclusive settings, it was clear that capturing what it means to be inclusive continues to lack consensus (Forlin et al. 2013). Across the identified studies, conceptualisations and definitions varied widely and limited tools explicitly outlined the underlying definitions or conceptualisations. Only the Inclusive Classroom Profile (Soucacou 2007) included an explicit definition of inclusive teacher practices, albeit in the manual. That is, 'inclusive practices support children's individualised needs while promoting active participation in the group through adjustments and inclusive

Table 1. Data extracted from the included studies.

Tool	Source and Study Type	Original Source of 'Tool'	Purpose of Tool	Concepts of inclusion explicitly stated or inferred	Category of Conceptualisation	Single or Multiple-orientated approach	Broad or Narrow Focus	Methods	Country	Journal
Quality of Inclusive Experiences (Measurement Instrument)	(Aguiar, Moiteiro, and Pimentel 2010). Made use of tool	(Wolery et al. 2000)	Measure the quality of inclusive environment for children with disabilities	Inferred	B	Multiple	Narrow	Structured Observations, Document Review, Questionnaire, Interview	Portugal	Infants and Young Children
Framework for Participation (Organisational Framework)	(Black-Hawkins 2010). Made use of tool	(Black-Hawkins 2010)	Examine ways in which culture of a school supports/ impedes opportunities for all to participate	Principles explicitly stated	D	Multiple	Broad	No explicit data collection methods. Suggests naturalistic observation, interviews and document reviews	England	International Journal of Research Methods in Education
Inclusive Classroom Observation System (Measurement Instrument)	(Cameron 2014). Made use of tool	(Cameron, Cook, and Tankersley 2012)	To quantify/analyse behaviour to compare teachers' distribution and frequency of instruction	Inferred	B	Single	Narrow	Structured Observations	USA	Journal of Research in Special Education Needs
Program Quality Measurement Tool (Measurement Instrument)	(Cushing et al. 2009). Evaluation of tool	(Cushing et al. 2009)	Assess the presence and degree of implementation of research-based practices	Inferred	B	Multiple	Narrow	Observations (not structured), archival data, interview, questionnaire	USA	Journal of Special Education
Analytical Framework (Organisational Framework)	(Florian and Spratt 2013). Evaluation of tool	(Florian and Spratt 2013)	To enable systematic study of whether and how inclusive course reforms are implemented	Principles explicitly stated	D	Multiple	Broad	No explicit data collection methods. Suggests naturalistic observation and interviews	Scotland	European Journal of Special Needs Education

Instrument	Reference	Purpose	Definition				Method	Country	Journal
Inclusive Classroom Profile (Measurement Instrument)	(Fyssa and Vlachou 2015, Lundqvist, Allodi Westling, and Siljehag 2016, Soulakou 2012, Soulakou et al. 2014, Evaluation of tool	Overall Quality of inclusion and practices for children with special education needs	Definition explicated stated	D	Multiple	Broad	Structured Observation, interview, document review	Sweden; England; Greece	European Journal of Special Needs Education; Journal of Early Intervention; Early Childhood Research Quarterly
Inclusive Classroom Observation Tool (Measurement instrument)	(Morningstar et al. 2015), Made use of tool	Collect descriptive data regarding effective classroom practices	Inferred	C	Multiple	Broad	Structured Observation and questionnaire	USA	Research and Practice for Persons with Severe Disabilities
Inclusive Practices Classroom Observation Scale (Measurement instrument)	(Sharma and Sokal 2016), Evaluation of tool	To capture the frequency of inclusive educational practices	Inferred	C	Multiple	Broad	Structured Observation	Canada	Australasian Journal of Special Education
Ecobehavioural Assessment Systems Software (EBASS) (measurement instrument)	(Wallace et al. 2002), Made use of tool	Identification of variables surrounding presence of student academic responding	Inferred	C	Multiple	Broad	Structured Observation	USA	Exceptional Children
Classroom Observation Scale (Measurement instrument)	(McGhie-Richmond, Underwood, and Jordan 2007), Made use of tool	To describe effective teaching practices and the level of inclusion	Inferred	C	Multiple	Broad	Structured Observation	Canada	Exceptionality Education Canada

adaptations that might differ from child to child' (Soucacou 2007). None of the other tools incorporated an explicit definition of inclusion. However, two tools (both organisational frameworks) articulated the underlying inclusive principles associated with the frameworks (Framework for Participation and Analytical Framework) (Black-Hawkins 2010; Florian and Spratt 2013). Therefore, for the majority of tools the conceptualisation was inferred from the information provided in the tool as well as the focus of the items in it.

Eight out of the nine tools adopted a multi-orientated focus of inclusion. One tool (Inclusive Classroom Observation System) relied exclusively on different types of teacher-student verbal interactions and was therefore interpreted to be in line with a single-orientated approach to understanding inclusion (Cameron, Cook, and Tankersley 2012). Moreover, in relation to the breadth of focus of the conceptualisations of inclusion, a majority of tools adopted broad conceptualisations of inclusive education focusing on either on how schools should incorporate supports for all (Inclusive Classroom Observation Tool; Inclusive Practices Classroom Observation Scale; Code for Instructional Structure and Student Academic Response-Mainstream Version; Classroom Observation Scale) or a global perspective, recognising the connection between the classroom, school and/or wider community which included at least in part, the various stakeholders present (Framework for Participation; Analytical Framework; Inclusive Classroom Profile) (Morningstar et al. 2015; Sharma and Sokal 2016; Greenwood et al. 1994; Stanovich and Jordan 1998; Black-Hawkins 2010; Florian and Spratt 2013; Soucacou 2007). The remaining three tools were narrower in their focus. More specifically, they were primarily concerned with students with special educational needs (Quality of Inclusive Experiences; Inclusive Classroom Observation System; Program Quality Measurement Tool) (Wolery et al. 2000; Cameron, Cook, and Tankersley 2012; Cushing et al. 2009).

It follows, that the tools varied with regard to what category of inclusive definitions they were associated. None of the located tools were aligned with a placement definition or conceptualisation (Category A). In other words, none were primarily focused on the placement of students with special educational needs. Three of the tools were associated with the category of specified individualised definition or inclusion as concerned with the social and academic outcomes for students with disabilities (Quality of Inclusive Experiences; Inclusive Classroom Observation System; Program Quality Measurement Tool) (Wolery et al. 2000; Cameron, Cook, and Tankersley 2012; Cushing et al. 2009) (Category B). Four of the tools could be classified in line with a general individualised definition as they were focused on meeting the social/academic educational needs for all students (Inclusive Classroom Observation Tool; Inclusive Practices Classroom Observation Scale; Code for Instructional Structure and Student Academic Response-Mainstream Version; Classroom Observation Scale) (Morningstar et al. 2015; Sharma and Sokal 2016; Greenwood et al. 1994; Stanovich and Jordan 1998) (Category C). The remaining three tools, are conceptualised within the final category of definitions as they not only focus on educational and social outcomes for all, but also emphasise a holistic community-building approach to inclusion (Framework for Participation; Analytical Framework; Inclusive Classroom Profile) (Black-Hawkins 2010; Florian and Spratt 2013; Soucacou 2007) (Category D).

As one of the aims of this review focused on what types of inclusive practices should teachers use in the classroom, practices associated with the classroom level of analysis were drawn from the tools and organised qualitatively. Analysis of 169 indicators/items

and areas of focus of the tools, revealed a broad array of aspects relating to teacher practice. These initial indicators/item were distilled (through the process of thematic analysis) into 63-codings. These codes were subsequently organised into five overarching themes of inclusive practice for teachers. These included: 'Collaboration and Teamwork', 'Determining Progress of Student', 'Instructional Support', 'Organisational Practices', 'Social/ Emotional/Behavioural Support'. For a detailed explanation of the key themes, associated codings, and pertinent extracts drawn from items/indicators, refer to Appendix.

The relative importance of the different themes was inferred from the range of practices which were the focus of the observation tools. That is, some tools did not account for the many different aspects of teacher practices in the classroom. For example, 'Ecobehavioural Assessment Systems Software' (Greenwood et al. 1994) only focused on 'Instructional Support' and elements of 'Organisation and Management'. In contrast, other measures covered a broad array of aspects relating to practice. For example: the Program Quality Measurement Tool (Cushing et al. 2009) and 'Inclusive Practices Classroom Observation Scale' (Sharma and Sokal 2016). Both included all the identified themes. This finding demonstrated that some of the tools encapsulated a more comprehensive view of what it means for a teacher to implement inclusive practices. Importantly, the three themes that were common to all tools were 'Social/Emotional/Behavioural Support', 'Organisational Practices' and 'Instructional Support'. Also, by examining the number of codes associated with each theme the relative importance of each category of practice can be inferred. The themes of 'Instructional Support' and 'Social/Emotional/Behavioural Support' had the most number of associated codes with 24 and 19 codes respectively. Next was 'Organisation' (8 codes), 'Determining Progress' (7 codes) and finally, 'Collaboration and Teamwork' (5 codes). For an overview of the types of in-class inclusive teacher practices that should be the focus of observations and examples of associated practices, refer to Figure 2 ('A guide to in-class observation of inclusive teachers').

Collaboration and teamwork

The teacher's practices within this category related to how they worked with other professionals in the classroom including: other teachers, families of students, and other professionals (for example: behavioural experts, language experts, physiotherapists). More specifically, this theme related to how teachers: work within teaching teams, engage and communicate with students' families, employ the use of specialists, use paraprofessionals and connect with community agencies and other institutions. Furthermore, this theme also relates to how teachers could learn from their colleagues and from sharing information about practice, as well as the development, monitoring, evaluation and dissemination of school/practice improvement plans. The importance of collaboration and teamwork was evident given related behaviours were present in 8 out of 10 of the tools.

Determining progress

Practices relating to how teachers assessed and monitored student's individualised outcomes were classified within this theme. While this domain is usually focused on academic achievement, it is important to note that within an inclusive classroom a 'whole child' perspective is adopted. That is, teachers track the development of the child overall with
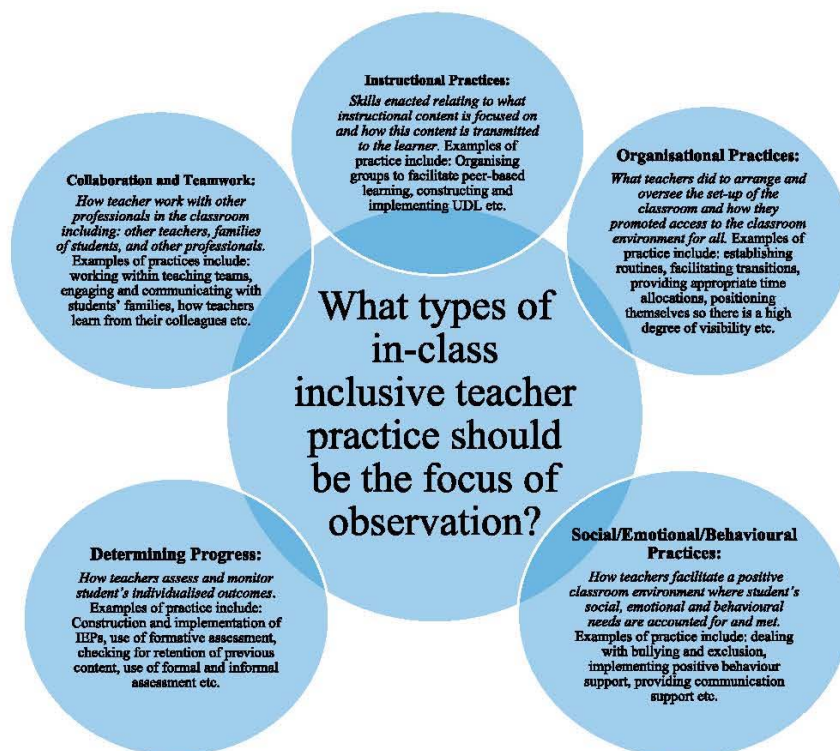
Figure 2. A guide to in-class observation of inclusive teachers.

individualised goals as measures of success. The specific practices associated with this domain relate to how teachers: construct and implement individual education plans (IEP), use formative assessment, use formal and informal assessment, measure success, use a variety of assessment strategies, test students and make accommodations for testing, check for retention of previous content and frequent questioning to check for mastery of concepts. Determining Student Progress was also an important theme. Seven out of the 10 tools explicitly outlined practices to facilitate successful assessment and achievement of all students.

Instructional support

Practices associated with this theme relate to the specific skills enacted relating to what instructional content is focused on and how this content is transmitted to the learner. Furthermore, the practices relate to how teaching is individualised and how a sense of agency is fostered within the learner. More specially this is concerned with how teachers; organise groups to facilitate peer learning, teach to promote generalisation of skills across contexts, construct and implement a universal design for learning (UDL), differentiate their instruction to account for learner differences and provide choice in learning tasks to students.

Given the primary role of a teacher is to provide instructional support, it is clear that this classification of practice is important. This was supported by the fact that all tools incorporated practices relating to instructional support and this theme had the most associated observational indicators/items.

Organisational practices

This theme related to what teachers did to arrange and oversee the set-up of the classroom and how they promoted access to the classroom environment for all students. Specifically, this refers to how the teacher: established routines, facilitated transitions between tasks, adapted resources and materials and used technology to account for differing needs, provided appropriate time allocations, scanning and circulating in the classroom and positioning themselves so they, as teachers, had a high degree of visibility. Organisation behaviours were also highlighted as an important theme of practice found throughout all the identified tools.

Social/Emotional/behavioural support

This theme referred broadly to items relating to how teachers facilitated a positive classroom environment where student's social, emotional and behavioural needs were accounted for and met. Specific practices associated with this theme related to how the teacher: provided and communicated support, conveyed their behavioural expectations, facilitated play, gave praise and feedback, implemented functional behavioural assessments, dealt with bullying and exclusion as well as, the language to express value and approval. The Social/Emotional/Behavioural support offered by teachers in inclusive classrooms was a common theme to all the tools. Therefore, it can be considered a vital feature of inclusive practice. This theme also had the second most associated number of items/indicators.

Discussion

The current review examined published research that made use of observational data in order to establish how the tools could be used to define and conceptualise 'inclusion' and which types of high-quality inclusive practices teachers should use to create an inclusive classroom. Unique to the present study was a focus on observation tools which represented an under-examined area of inquiry.

Significantly, the findings of this current review highlighted that a majority of the tools did not contain an explicit statement of their concept or definition of inclusive education. Given that it is recognised that researchers should clearly articulate the specific meaning and underlying values associated with inclusive education (Ainscow, Booth, and Dyson 2006), this finding is concerning. Only one tool contained an explicit definition of inclusive practice. However, the Framework for Participation and the Analytical Framework did include explicitly articulated principles of inclusion (Black-Hawkins 2010; Florian and Spratt 2013). The wide range of conceptualisations suggests that clarity of meaning is still lacking in studies exploring inclusive teacher practices.

Despite seeking clarity, the findings from the current review did not support a single, all-encompassing definition of inclusive teacher practices. This does not mean that

previous research should be dismissed, it does mean that a clarification of inclusive practices would make the studies more meaningful. Also, in-depth studies of environment and practice in relation to key principles and/or definitions of quality practice are required. A clear understanding of the purpose (and conceptualisations of inclusion) could, in turn, provide guiding principles to effective and targeted observation.

The majority of the reviewed studies adopted a broad view of inclusion. That is, a number of tools focused on either how schools should incorporate supports for all (Inclusive Classroom Observation Tool; Inclusive Practices Classroom Observation Scale; Code for Instructional Structure and Student Academic Response-Mainstream Version; Classroom Observation Scale) or a global perspective, recognising the connection between the classroom, school and/or wider community (Framework for Participation; Analytical Framework; Inclusive Classroom Profile) (Morningstar et al. 2015; Sharma and Sokal 2016; Greenwood et al. 1994; Stanovich and Jordan 1998; Black-Hawkins 2010; Florian and Spratt 2013; Soucacou 2007). Definitions within this broad perspective are focused on all students, no matter their disability or status as belonging to marginalised group.

Clearly, there is a shift in thinking away from medical models of disability towards more social models of disability where needs of all students are considered important. The other three tools were narrow in their focus (Quality of Inclusive Experiences; Inclusive Classroom Observation System; Program Quality Measurement Tool) as they conceptualised education of learners with a disability from an integration perspective (Wolery et al. 2000; Cameron, Cook, and Tankersley 2012; Cushing et al. 2009). It appeared that a focus of these tools was on the location rather than about how best all learners could be included and provided with a high-quality education.

Interestingly, a majority of the tools were focused on education for all and/or focused on building inclusive communities. These ideas are in line with Göransson and Nilholm's (2014) categories 'C' and 'D'. Implicit in these categories of definitions, is the idea that teachers have responsibility for all students in the classroom. Also, the justification for inclusion can be inferred from these two categories of definitions. Overall, category 'C' and 'D' of the definitions focuses on all students, suggesting that inclusion is an issue related to reforming general education, as opposed to focusing on changing the students themselves. Within these conceptualisations, accounting for diversity is seen as an issue of school improvement. These conceptualisations focus on all pupils and how the environment is set up to promote inclusion.

As to the second research question regarding what types of practices teachers should use to create an inclusive classroom, it was clear that what it meant for teachers to act inclusively in the classroom varied considerably. There were a wide range of observational items that varied in terms of how they were operationalised. The current analysis revealed that practices relating to 'Instructional Support' and 'Social/Emotional/Behavioural Support' were deemed to be the most important theme of practice and represent collections of skills that were the primary focus of many of the tools. It was the collection of themes that represented a holistic view of what it meant to be an inclusive teacher in a classroom. While these themes appear to be simple concepts, the complex role required of teachers to work in inclusive classrooms may be difficult to distil into checklists that can be applied to every inclusive context. Instead, the themes of practice can be used as a foundation to understand the breadth of practices utilised. Therefore, a broad assessment

of inclusive teachers' practices should include attempts to understand how teachers implement instructional support, account for and facilitate social/emotional/behavioural development, how they physically organise the classroom, their skills in determining student progress over time and how teachers collaborate and work together to become reflective practitioners who are striving to develop their skills for all learners. These themes align with published studies discussed below.

Collaboration and teamwork

This review found that a majority of tools made reference to various practices related to collaboration and teamwork. It appeared that teachers could undertake a number of varied practices in order to work effectively and inclusively with other key stakeholders. The 'Profile of Inclusive Teachers' (EADSNE 2012), also emphasised this theme under the category 'working with others'. More specifically, building competencies to work with others, referring to how teachers work with parents, families and other professionals. This category of practice was typified in the Inclusive Practices Classroom Observation Scale (Sharma and Sokal 2016). The tool focused on: Collaborating with team mates to support learning; regularly sharing information and/or best practices with colleagues to improve practice; engage with families to share information and strategies to enhance student learning and working with paraprofessionals. These practices highlighted that teachers did not exist in isolation. Therefore, their professional relationships (be that with other teachers, paraprofessionals or parents) required active awareness. Teachers should be working with others in order to become reflective practitioners while also collaborating with other teachers, support staff and parents to achieve a more coordinated, holistic approach to student's inclusive education. Understanding and focusing on these relationships may lead to, what Florian and Spratt (2013) outline in their Framework, as 'becoming an active professional'.

Determining progress

This cluster of practices incorporated features of a number of established frameworks including, most notably: formative assessment. This involved tracking student development over time and using outcomes to inform future evaluation. Previously, Hattie's (2008) meta-analysis of the effect size of a variety of teaching interventions, ranked this form of assessment as most important when considering the myriad of teaching practices relating to inclusion. His meta-analysis also highlighted the importance of specifically targeted assessment strategies which could be classified within a formative assessment framework (Hattie 2008). That is, taking into account the 'whole-child's' development, providing a variety of assessment strategies and ensuring progress is 'data-driven'. These practices were of primary focus in the Inclusive Practices Classroom Observation Scale (Sharma and Sokal 2016), Program Quality Measurement Tool (Cushing et al. 2009), Analytical Framework (Florian and Spratt 2013) and the Inclusive Classroom Profile (Soucacou 2007). Furthermore, success and outcomes have often been narrowly defined in terms of academic outcomes. The tools found in this review promote the importance of tailored-holistic goals including: behavioural, emotional, creative, social and physical achievements (Black-Hawkins 2010). This highlighted the fact that inclusive teachers

should have a broader conceptualisation of what is considered 'Achievement', which moves away from a historically exclusionary academic focus.

Instructional support

A number of researchers have identified the need to ensure that learners are well supported by their teachers in inclusive classrooms. Our study found that instructional support was a major theme across all the located tools. A feature of these findings is that all the tools provided specific examples of how to differentiate instruction. Differentiation promotes active planning for students' individual differences and focuses on the learning process, therefore these practices require teachers to be flexible in their approaches. Tomlinson (2001) outlined five key guidelines to ensure instruction was successfully differentiated: All key concepts and generalisations are clarified; assessment is used a teaching tool to extend students; emphasis is placed on critical and creative thinking as a goal; all students are engaged in learning; balance between teacher-assigned and student-selected tasks is achieved (Tomlinson 2001). Importantly, these practices are often implemented ad hoc without prior planning. In other words, they are simply implemented in the moment. Practices such as: providing additional support, giving specific guidance to some students and repeating or simplifying instructions are often not planned for and warrant a more systematic approach to implementation (Buli-Holmberg, Nilsen, and Skogen 2014; Chan et al. 2002; Yuen, Westwood, and Wong 2005). The results of the thematic analysis also indicated that teachers can also be more inclusive through the implementation of a Universal Design for Learning (UDL). UDL is the methods and materials that are flexible enough to help all students in the classroom. van Kraayenoord, Waterworth, and Brady (2014) offer three main features of UDL: Multiple means of representation providing options for different modes of acquiring new information; multiple means of expression accounting for different ways of presenting and demonstrating learning; multiple means of engagement providing different levels of activity and engagement (van Kraayenoord, Waterworth, and Brady 2014). Moreover, the use of assistive technologies fits in with UDL principles. Assistive technologies can facilitate flexible teaching and learning and are considered necessary to use within classrooms aiming to cater to all (Strobel et al. 2007). The abovementioned principles and practices rely on the teacher's attitudes and their conceptualisation of diversity. The 'Profile of Inclusive Teachers' (EADSNE 2012), emphasised these ideas under the themes of 'Teachers view of learner difference' and 'Effective teaching approaches in heterogeneous classes'. It appears that teachers cannot rely exclusively on any one instructional support practice. Learners may be advantaged if teachers plan for and provide flexible approaches to instruction within a UDL framework (aided by assistive technologies), rooted in positive attitudes towards learner differences.

Organisational practices

Inclusive Teachers in inclusive classrooms have the task of providing access to the physical classroom environment for students. A well-arranged classroom also tends to improve student's academic and behavioural outcomes (Walker, Colvin, and Ramsey 1996). In the present review, it was found that organisational practices were a common theme

across all the tools. The associated practices were many and varied. Importantly, some of these practices overlapped with other themes of practice, namely socio-emotional-behavioural support. For example, expressing clear behavioural expectations may serve the dual purpose of efficiently organising how students are positioned as well as indicating what is deemed appropriate behaviour in the classroom. Nevertheless, the organisational practices associated with this theme appear to be a distinct category of practice. While this category was not discrete in the previous European 'Teacher profile' a number of different practices and competencies are suggested that are in line with the current conceptualisation of Organisational Practices (EADSNE 2012). These include: 'employing classroom leadership skills that involve systematic approaches to positive classroom management'; 'managing the physical and social environment of the classroom to support learning' and 'drawing on a range of verbal and non-verbal communication skills to facilitate learning'. The features of tools located in the current review were in line with this previous profile. The tools primarily focused on practices relating to the spatial and physical structure of classes as well as the practices of teachers to help run classrooms more efficiently. The Inclusive Classroom Observation System (Cameron, Cook, and Tankersley 2012) provided clear examples that teachers should intentionally organise the physical space and materials. In practice, for example, they refer to teachers repositioning a child in a wheelchair so that he/she can face her peers. The Classroom Observation Scale (Stanovich and Jordan 1998) made reference to a number of practices which contribute to the classroom running more efficiently. For example: the teacher states expectations for seatwork and transitions in advance. More specifically, the teacher may prepare students for a transition in advance by clearly stating expectations. Other examples include: ensuring enough time for tasks, positioning of self and materials with a high degree of visibility and regularly scanning and circulating the classroom. Using evidence-based instructional practices coupled with effective ways to organise the classroom, represent clusters of practices that are critical when examining the teacher's practices in the classroom. Focusing on how the physical environment is organised as well as the practices relating to general classroom management appear necessary when attempting to create classrooms that are efficiently organised and accessible to all learners.

Socio/Emotional/behavioural support

This review found that social/emotional and behavioural support from teachers was a common theme that warrants a critical focus when attempting to observe teacher's practices. The 'Profile of Inclusive Teachers' (EADSNE 2012), which categorises these types of practices under 'supporting all learners', also highlighted the need for teachers to promote the practical, social and emotional learning of all students.

A number of different practices were identified in the current review. Firstly, Positive Behaviour Support (PBS). Although the term PBS was often not explicitly stated, practices relating to this framework were common to most of the tools, e.g. The Program Quality Measurement Tool includes: attention provided for engaging in appropriate behaviour, functional behaviour assessment/analysis and behaviour plans are implemented as needed, student's programmes utilise integrated therapy models (Cushing et al. 2009). Also, the Inclusive Classroom Observation Tool emphasised that PBS should focus on: positive interactions among all students, peers socially engaged with students with

disabilities, class-room wide behavioural expectation are clearly displayed and are accessible, classroom interventions are positive and focus on supporting appropriate social skills (Morningstar et al. 2015). Conflict resolution and facilitating communication were important features that are classified within a PBS system (Morningstar et al. 2015; Cushing et al. 2009). Another common collection of practices was Response to Intervention (RTI). Practices which featured in RTI were common to a number of tools. Most notably, Cushing et al. (2009) suggested using functional behaviour assessment within an integrated therapy model. Fairbanks et al. (2007) outlined the essential elements of RTI: a continuum of evidence-based services available to all students (i.e. universal to specialised); understanding where students' skills are in comparison to other students; ongoing monitoring of progress; use of intensive and specialised interventions if prior techniques were not effective; evaluation for special education services if students do not respond to intervention instruction (Fairbanks et al. 2007). Also, an important feature of the tool, that requires further research is what 'Dealing with exclusion and bullying' looks like. While these practices have been recognised as important it is unclear how best to enact them. Overcoming exclusionary barriers appears to be an important focus for teachers to foster a sense of belonging and in creating welcoming environment. These features of the classroom cannot be realised without accounting for exclusion and the social/emotional/behavioural processes of students.

Limitations

While the thematic analysis revealed groups of practices that are deemed important to focus on in naturalistic settings, it is unclear if the themes encapsulate all the possible practices teachers use to create an inclusive classroom. However, as the focus was on classroom practices, it is beyond the scope of the current line of inquiry to investigate all features of inclusion (including those that cannot be observed). For example, not all features of inclusion can be captured by solely observing teacher practice. Recognising students' perception of their own experience is an important method of determining the best practices to use and how all students can best be supported to actively participate in inclusive classrooms and schools (Corbett 2001). Future research could focus on determining the validity of the 'student voice'.

Implications

Within the realm of professional development and pre-service education, the findings and the in-class observation 'guide' could be used as a catalyst to prompt and steer the analysis and measurement of teacher's practices in the classroom. Given that teachers need practical experiences in the classroom (Shaddock et al. 2007) the concepts uncovered in this review represent an important foundation through which to interrogate classroom practices and prompt critique of classrooms no matter the context. Thus, this review contributes to both theoretical and practical knowledge that pre-service and in-service teachers can use to develop their inclusive practices. More specifically, the 'Guide' can be used to anchor and guide authentic classroom observations, better target reflective practice, and promote and provide structure to school, teacher and self-assessments. Furthermore, the practices discussed reflect the focus of a number of different in-class observation tools

that were focused on all levels of education (preschool, primary and secondary). It is clear from the themes that what it means to be an inclusive teacher in practice requires a broad variety of practices. The 'Guide to In-Class Observation of Inclusive Teachers' (see Figure 2) represents an organised profile against which to compare, validate and create observational tools. Ultimately, this research contributes to the goal of gathering more objective in-class data focusing on teachers inclusive practices.

Conclusions

An inclusive teacher should essentially be competent in five areas (Instructional Practices; Organisational Practices; Social/Emotional/Behavioural Practices; Determining Progress; Collaboration and Teamwork) outlined in Figure. 2. This review represents an initial step forward in understanding evidence-based practice in the classroom. Pre-service and in-service teachers could also use the profile for self-reflection and in identifying areas where they need to have a high degree of competence to ensure learners with diverse abilities will flourish in their classrooms. It is important to note, however, the synthesised themes of practice are not a comprehensive list of all possible teacher practices. Instead, the themes represent the most important practices relating to the implementation of inclusive education.

While many of the tools promoted a comprehensive analysis of inclusion (with multiple methods of data collection), many of the tools did not account for the context-dependent nature of inclusion. Some of the tools promoted other data collection techniques to assess the overall quality of inclusion to be used in conjunction with observation techniques. However, additional research is needed to evaluate teacher practices together with student's perceptions of inclusion and assessments of the inclusive climate. By doing this, researchers and education stakeholders can better understand inclusive practices and how they correspond with the views of the primary consumers of inclusive education, the students.

(Studies found during the current review are marked with '*'):

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

*Aguiar, Cecília, Ana Rita Moiteiro, and Júlia Serpa Pimentel. 2010. "Classroom Quality and Social Acceptance of Preschoolers with Disabilities." *Infants & Young Children* 23 (1): 34–41. doi:10.1097/IYC.0b013e3181c9766e.

Ahmmed, Masud, Umesh Sharma, and Joanne Deppeler. 2012. "Variables Affecting Teachers' Attitudes Towards Inclusive Education in Bangladesh." *Journal of Research in Special Educational Needs* 12 (3): 132–140.

Ainscow, Mel. 2005. "Developing Inclusive Education Systems: What are the Levers for Change?" *Journal of Educational Change* 6 (2): 109–124.

Ainscow, Mel, Tony Booth, and Alan Dyson. 2006. *Improving Schools, Developing Inclusion.* London: Routledge.

Alquraini, Turki, and Dianne Gut. 2012. "Critical Components of Successful Inclusion of Students with Severe Disabilities: Literature Review." *International Journal of Special Education* 27 (1): 42–59.

Andrews, J. W., M. Drefs, J. Lupart, and T. Loreman. 2015. "Foundations, Principles, and Student Diversity." In *Diversity Education: Understanding and Addressing Student Diversity*, edited by J. W. Andrews and J. Lupart, 24–73. Toronto: Nelson Education Limited.

Avramidis, Elias, Phil Bayliss, and Robert Burden. 2000. "Student Teachers' Attitudes Towards the Inclusion of Children with Special Educational Needs in the Ordinary School." *Teaching and Teacher Education* 16 (3): 277–293.

Berlach, Richard G, and Dianne J Chambers. 2010. "Inclusivity Imperatives and the Australian National Curriculum." *The Educational Forum* 75: 52–65.

Black-Hawkins, Kristine. 2010. "The Framework for Participation: A Research Tool for Exploring the Relationship Between Achievement and Inclusion in Schools." *International Journal of Research & Method in Education* 33 (1): 21–40. doi:10.1080/17437271003597907.

Booth, Tony, Mel Ainscow, and Denise Kingston. 2006. *Index for Inclusion: Developing Play, Learning and Participation in Early Years and Childcare.* ERIC.

Bourke, Roseanna, and Judith Loveridge. 2013. "A Scientist-Practitioner Model for Inclusive Education: Supporting Graduate Students to Conduct Systematic Reviews for Evidence-Based Practice." *New Zealand Journal of Teachers' Work* 10 (1): 4–23.

Braun, Virginia, and Victoria Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3 (2): 77–101. doi:10.1191/1478088706qp063oa.

Buli-Holmberg, Jorun, Sven Nilsen, and Kjell Skogen. 2014. "Inclusive and Individually Adapted Education in Norway Results from a Survey Study in Two Municipalities Focusing the Roles of Headteachers, Teachers and Curriculum Planning." *International Journal of Special Education* 29 (1): 47–60.

Cameron, David Lansing. 2014. "An Examination of Teacher–Student Interactions in Inclusive Classrooms: Teacher Interviews and Classroom Observations." *Journal of Research in Special Educational Needs* 14 (4): 264–273. doi:10.1111/1471-3802.12021.

Cameron, David Lansing, Bryan G Cook, and Melody Tankersley. 2012. "An Analysis of the Different Patterns of 1: 1 Interactions Between Educational Professionals and Their Students with Varying Abilities in Inclusive Classrooms." *International Journal of Inclusive Education* 16 (12): 1335–1354.

Chan, C., R. Chang, P. S. Westwood, and M. T. Yuen. 2002. "Teaching Adaptively: How Easy is' Differentiation in Practice? A Perspective from Hong Kong." *Asia-Pacific Education Researcher* 11: 27–58.

Corbett, Jenny. 2001. "Teaching Approaches Which Support Inclusive Education: A Connective Pedagogy." *British Journal of Special Education* 28 (2): 55–59.

Cushing, Lisa S, Erik W Carter, Nitasha Clark, Terry Wallis, and Craig H Kennedy. 2009. "Evaluating Inclusive Educational Practices for Students with Severe Disabilities Using the Program Quality Measurement Tool." *The Journal of Special Education* 42 (4): 195–208.

Dyson, Alan, Peter Farrell, Filiz Polat, Graeme Hutcheson, and Frances Gallannaugh. 2004. *Inclusion and Pupil Achievement.* London: Department for Education and Skills.

EADSNE. 2010. *Teacher Education for Inclusion: International Literature Review.* Denmark: Author.

EADSNE. 2012. Teacher Education for Inclusion: Profile of Inclusive Teachers." *European Agency for Development in Special Needs Education.*

Erten, Ozlem, and Robert Samuel Savage. 2012. "Moving Forward in Inclusive Education Research." *International Journal of Inclusive Education* 16 (2): 221–233. doi:10.1080/13603111003777496.

Fairbanks, Sarah, George Sugai, David Guardino, and Margaret Lathrop. 2007. "Response to Intervention: Examining Classroom Behavior Support in Second Grade." *Exceptional Children* 73 (3): 288–310.

Ferguson, Dianne L. 2008. "International Trends in Inclusive Education: The Continuing Challenge to Teach Each one and Everyone." *European Journal of Special Needs Education* 23 (2): 109–120.

Florian, Lani. 2005. "Inclusive Practice: What, Why and How." In *The Routledge Falmer Reader in Inclusive Education*, 29–30. London: Routledge.

Florian, Lani. 2012. "Preparing Teachers to Work in Inclusive Classrooms: Key Lessons for the Professional Development of Teacher Educators from Scotland's Inclusive Practice Project." *Journal of Teacher Education* 63 (4): 275–285. doi:10.1177/0022487112447112.

Florian, Lani. 2014. "What Counts as Evidence of Inclusive Education?" *European Journal of Special Needs Education* 29 (3): 286–294.

Florian, Lani, and Kristine Black-Hawkins. 2011. "Exploring Inclusive Pedagogy." *British Educational Research Journal* 37 (5): 813–828.

Florian, Lani, and Martyn Rouse. 2009. "The Inclusive Practice Project in Scotland: Teacher Education for Inclusive Education." *Teaching and Teacher Education* 25 (4): 594–601.

Florian, Lani, and Jennifer Spratt. 2013. "Enacting Inclusion: A Framework for Interrogating Inclusive Practice." *European Journal of Special Needs Education* 28 (2): 119–135. doi:10.1080/08856257.2013.778111.

Forlin, Chris. 2006. "Inclusive Education in Australia ten Years after Salamanca." *European Journal of Psychology of Education* 21 (3): 265.

Forlin, Chris. 2013. "Issues of Inclusive Education in the 21st Century." *Journal of Learning Science* (Issue 6): 67–81. doi:10.15027/35243.

Forlin, Chris Irene, Dianne J Chambers, Tim Loreman, Joanne Deppler, and Umesh Sharma. 2013. "Inclusive Education for Students with Disability: A Review of the Best Evidence in Relation to Theory and Practice."

Fyssa, Aristea, and Anastasia Vlachou. 2015. "Assessment of Quality for Inclusive Programs in Greek Preschool Classrooms." *Journal of Early Intervention* 37 (3): 190–207.

Gherardi, Silvia. 2008. "Situated Knowledge and Situated Action: What do Practice-Based Studies Promise?" In *The SAGE Handbook of New Approaches in Management and Organization*, 516–525. London: SAGE Publications.

Göransson, Kerstin, and Claes Nilholm. 2014. "Conceptual Diversities and Empirical Shortcomings–a Critical Analysis of Research on Inclusive Education." *European Journal of Special Needs Education* 29 (3): 265–280.

Greenwood, Charles R, Judith J Carta, Debra Kamps, Barbara Terry, and Joseph Delquadri. 1994. "Development and Validation of Standard Classroom Observation Systems for School Practitioners: Ecobehavioral Assessment Systems Software (EBASS).

Grima-Farrell, Christine R, Alan Bain, and Sarah H McDonagh. 2011. "Bridging the Research-to-Practice Gap: A Review of the Literature Focusing on Inclusive Education." *Australasian Journal of Special Education* 35 (2): 117–136. doi:10.1375/ajse.35.2.117.

Hattie, John. 2008. *Visible Learning. A Synthesis of Over 800 Meta-Analyses Relating to Achievement* . 1st ed. London: Routledge.

Hopewell, Sally, Mike J Clarke, Carol Lefebvre, and Roberta W Scherer. 2007. "Handsearching Versus Electronic Searching to Identify Reports of Randomized Trials." *The Cochrane Library.* doi:10.1002/14651858.MR000001.pub2.

Hoppey, David, and James McLeskey. 2013. "A Case Study of Principal Leadership in an Effective Inclusive School." *The Journal of Special Education* 46 (4): 245–256.

Liberati, Alessandro, Douglas G Altman, Jennifer Tetzlaff, Cynthia Mulrow, Peter C Gøtzsche, John PA Ioannidis, Mike Clarke, Pl J Devereaux, Jos Kleijnen, and David Moher. 2009. "The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration." *PLoS Medicine* 6 (7): e1000100. doi:10.1136/bmj.b2700.

Lundqvist, Johanna, Mara Allodi Westling, and Eva Siljehag. 2016. "Characteristics of Swedish Preschools That Provide Education and Care to Children with Special Educational Needs." *European Journal of Special Needs Education* 31 (1): 124–139.

McGhie-Richmond, Donna, Kathryn Underwood, and Anne Jordan. 2007. "Developing Effective Instructional Strategies for Teaching in Inclusive Classrooms." *Exceptionality Education Canada* 17 (1/2): 27.

Mitchell, David. 2015. "Inclusive Education is a Multi-Faceted Concept." *Center for Educational Policy Studies Journal* 5 (1): 9–30.

Morningstar, Mary E, Karrie A Shogren, Hyunjoo Lee, and Kiara Born. 2015. "Preliminary Lessons About Supporting Participation and Learning in Inclusive Classrooms." *Research and Practice for Persons with Severe Disabilities* 40 (3): 192–210.

Moyles, Janet. 2002. "Observation as a Research Tool." In *Research Methods in Educational Leadership and Management*, 172–195. London: Sage.

O'Neill, Sue, and Jennifer Stephenson. 2012. "Classroom Behaviour Management Content in Australian Undergraduate Primary Teaching Programmes." *Teaching Education* 23 (3): 287–308. doi:10.1080/10476210.2012.699034.

Peters, Micah DJ, Christina M Godfrey, Hanan Khalil, Patricia McInerney, Deborah Parker, and Cassia Baldini Soares. 2015. "Guidance for Conducting Systematic Scoping Reviews." *International Journal of Evidence-Based Healthcare* 13 (3): 141–146. doi:10.1097/XEB.0000000000000050.

Ruijs, Nienke M, and Thea TD Peetsma. 2009. "Effects of Inclusion on Students with and Without Special Educational Needs Reviewed." *Educational Research Review* 4 (2): 67–79.

Schleicher, Andreas. 2016. "Teaching Excellence Through Professional Learning and Policy Reform." *Lessons from Around the World, International Summit on the Teaching Profession.*

Shaddock, A. J., J. Neill, C. van Limbeek, and L. Hoffman-Raap. 2007. *What Adaptations Do Classroom Teachers Make for Students with Disability in Their Classrooms and Why/Why Not?* Report to the Australian Government Department of Education. Science & Training, Canberra.

Sharma, Umesh. 2018 "Preparing to Teach in Inclusive Classrooms." *Oxford Research Encyclopedia of Education.* 20th Dec. 2018. http://oxfordre.com/education/view/10.1093/acrefore/9780190264093.001.0001/acrefore-9780190264093-e-113.

Sharma, Umesh, Chris Forlin, Joanne Deppeler, and Guang-xue Yang. 2013. "Reforming Teacher Education for Inclusion in Developing Countries in the Asia Pacific Region." *Asian Journal of Inclusive Education* 1 (1): 3–16.

Sharma, Umesh, and Laura Sokal. 2016. "Can Teachers' Self-Reported Efficacy, Concerns, and Attitudes Toward Inclusion Scores Predict Their Actual Inclusive Classroom Practices?" *Australasian Journal of Special Education* 40 (1): 21–38.

Shulman, Lee S, and Suzanne M Wilson. 2004. *The Wisdom of Practice: Essays on Teaching, Learning, and Learning to Teach.* Vol. 8. Michigan: Jossey-Bass Inc Pub.

Slee, Roger. 2001. "'Inclusion in Practice': Does Practice Make Perfect?" *Educational Review* 53 (2): 113–123. doi:10.1080/00131910120055543.

Slee, Roger. 2011. *The Irregular School: Exclusion, Schooling and Inclusive Education.* London: Taylor & Francis.

Soucacou, Eleni P. 2007. "Assessment of Classroom Quality in Inclusive Preschool Settings: Development and Validation of a New Observation Measure." University of Oxford.

Soukakou, Elena P. 2012. "Measuring Quality in Inclusive Preschool Classrooms: Development and Validation of the Inclusive Classroom Profile (ICP)." *Early Childhood Research Quarterly* 27 (3): 478–488.

Soukakou, Elena P, Pam J Winton, Tracey A West, John H Sideris, and Lia M Rucker. 2014. "Measuring the Quality of Inclusive Practices: Findings from the Inclusive Classroom Profile Pilot." *Journal of Early Intervention* 36 (3): 223–240.

Stanovich, Paula J, and Anne Jordan. 1998. "Canadian Teachers' and Principals' Beliefs about Inclusive Education as Predictors of Effective Teaching in Heterogeneous Classrooms." *The Elementary School Journal* 98 (3): 221–238.

Strobel, Wendy, Sajay Arthanat, Stephen Bauer, and Jennifer Flagg. 2007. "Universal Design for Learning: Critical Need Areas for People with Learning Disabilities." *Assistive Technology Outcomes and Benefits* 4 (1): 81–98.

Tomlinson, Carol Ann. 2001. "Differentiated Instruction in the Regular Classroom: What Does It Mean? How Does It Look?." *Understanding Our Gifted* 14 (1): 3–6.

UNESCO, IBE. 2008. ""Inclusive Education: The way of the Future." Conclusions and Recommendations of the 48th Session of the International Conference on Education (ICE), Geneva, Switzerland, 25–28 November 2008.

UNICEF. 2012. *Global Teacher Training and Inclusion Survey: Report for UNICEF Rights, Education and Protection Project (REAP)*. Geneva: Australian Government and UNICEF Education.

van Kraayenoord, Christina E, David Waterworth, and Trish Brady. 2014. "Responding to Individual Differences in Inclusive Classrooms in Australia." *Journal of International Special Needs Education* 17 (2): 48–59.

Van Laarhoven, Toni R, Dennis D Munk, Kathleen Lynch, Julie Bosma, and Joanne Rouse. 2007. "A Model for Preparing Special and General Education Preservice Teachers for Inclusive Education." *Journal of Teacher Education* 58 (5): 440–455.

Walker, Hill, Geoff Colvin, and Elizabeth Ramsey. 1996. "Antisocial Behavior in School: Strategies and Best Practices." *Behavioral Disorders* 21 (3): 253–255.

Wallace, Teri, Amy Reschly Anderson, Tom Bartholomay, and Susan Hupp. 2002. "An Ecobehavioral Examination of High School Classrooms That Include Students with Disabilities." *Exceptional Children* 68 (3): 345–359.

Wolery, M., T. Paucca, M. S. Brashers, and S. Grant. 2000. *"Quality of Inclusive Experiences Measure. Unpublished assessment instrument*. Chapel Hill, NC: Frank Porter Graham Child Development Center, University of North Carolina.

Xu, Jia-cheng. 2012. "Development of Learning in Regular Class and Measure of Teacher Education in China." In *Future Directions for Inclusive Teacher Education: An International Perspective*, edited by C. Forlin, 33–41. London: Routledge.

Yuen, Mantak, Peter Westwood, and Gunter Wong. 2005. "Meeting the Needs of Students with Specific Learning Difficulties in the Mainstream Education System: Data from Primary School Teachers in Hong Kong." *International Journal of Special Education* 20 (1): 67–76.

Appendix 1. Thematic analysis findings: key themes, associated coding, and pertinent extracts

Theme	Teacher inclusive classroom practices	Data extracts
Collaboration and teamwork	– Working with families – Collaborating with other teaching professionals and providing support in the classroom (general educators, special educators and paraprofessionals). This involves sharing information, materials and practices with colleagues. This also involves team teaching. – Learn from colleagues – Employ the use of specialists (Physio, psych etc.) – Develop, monitor, evaluate and disseminate school/practice improvement plans	– 'Involves family members in the classroom' (IPCOS) – 'Collaborates with teammates to support students' (IPCOS)
Determining progress	– Construct and implement individual education plans (IEP) – Frequent questions to check for mastery – Check for retention and review previous content – Modifications so goals are met – Variety of assessment – Formative assessment – Use formal and informal assessment – Whole child focus	– 'Uses a variety of assessment strategies to measure student progress (including formative assessment)' (IPCOS) – 'Use of alternative evaluation procedures' depending on individual (ICOT)
Instructional support	– Forecast upcoming instructional events – UDL: accommodations in presentation, different expressions of learning, engagement – Seeking out new ways of supporting learning – Pacing- brisk – Teaching problem solving – Teaching organisation strategies – Provide clear overview of lessons: summary and include accomplishments – Gaining attention – Children participate in co-construction of knowledge – Varied content across lessons and days – Teaching for generalisation – Model how students should undertake learning tasks – Encourage student reflection – Using technology to engage students – Peer -assisted learning: collaboration and different abilities in working groups – Activate prior knowledge – Instructional Groupings (1:1, whole class, groups) – Activities drawing on student strengths – Alternate explanation provided – Relating activities and curriculum to student's personal experience – Feedback provided (Frequent and appropriate) – Opportunity to ask questions – Responsiveness to questions	– 'Teachers and peers actively model how students should act in order to become more effective learners' (PQMT). – 'Provides alternate explanations or examples when students are confused' (IPCOS).

(Continued)

Continued.

Theme	Teacher inclusive classroom practices	Data extracts
Organisational practices	– Nonverbal and non-disruptive signals – Scan and circulate class – Rules for non-instructional events – Ensure access to physical environment – Teacher positioning- high degree of visibility – Facilitating transitions- routines are clear and understood – Appropriate time allocations – Balanced teacher involvement	– 'Adults intentionally organise the physical space and materials throughout the day to accommodate individual needs and/or to encourage peer interactions. For example: Adult repositions child in wheelchair so that she can face her peers' (ICOS) – 'States expectations for seatwork and transitions in advance. For example: prepares students for transitions in advance by stating expectations' (COS)
Social/Emotional/Behavioural support	– Appropriate praise – Verbal reminder how to respect and treat others – Communication support – Sense of belonging fostered – Conflict resolution made explicit – Trust facilitated between adults and students – Staff communicate respectfully: use language that expresses value for all – Integrated therapy models – Attention for appropriate behaviour – Facilitating involvement in extracurricular and recess – Overcoming exclusion: challenging deterministic beliefs, tell kids stories, reject ability groupings – Welcoming environment – High expectations for all – Motivate students – Help students feel safe and take risks – Facilitating peer interaction – Behavioural support and expectations: established code of conduct, prevent behavioural disruptions, Consequences of non-compliance are clear – Helping children with personal care equipment – Adapting toys and encouraging play	– 'The degree to which adult-child contacts are responsive and supportive of learning and development: adults respond to initiations, are responsive to child behaviour and attention, frequently request or suggest elaboration of child's behaviour' (QIE) – 'Adults create many opportunities to facilitate communication among children and help them sustain meaningful communication. For example: adult clarifies for what a student said for another student' (ICP)

Summary of Chapter 3

Within the context of the whole thesis, this paper highlights the key themes related to the inclusive practices of teachers in the classroom and, therefore, significantly contributes to the small amount of research in this area. Additionally, a number of tools that can be used to interrogate inclusive practices of teachers were located. One such tool was the Inclusive Practices Classroom Observation Scale (IPCOS). This tool incorporated items that were associated with the key themes developed through the thematic analysis process. Therefore, the IPCOS was deemed a useful tool to gather observational data given its broad focus on a variety of inclusive practices. This led to the adoption of the IPCOS for the current research.

Chapter 4: Methodology

Chapter Overview

The overall purpose of the research was to contribute to an understanding of how to align inclusive theory with inclusive practice within a teacher education context. Additionally, this research was undertaken to:

- Affirm whether or not the 'preparedness' variables and the relationships between them were in line with the TPB.

- Determine whether PST intentions (i.e. the best predictor of actual practice according to the TPB) were predicted from their attitudes, efficacy and concerns.

- Ascertain whether the attitudes, efficacy, concerns and intentions of PSTs were significantly related to background variables such as their gender, direct contact with people with disability, knowledge about policy and legislation etc.

- Determine whether the TPB variables were significantly related to observable inclusive practices after completing the inclusive education Subject.

- Understand the impact of the inclusive education Subject on the TPB variables associated with inclusive practice. Furthermore, to understand if there was any differential impact relating to how the Subject content was delivered (i.e co-teaching or single-teacher model).

- Investigate PST's perceived facilitators and barriers to teach in inclusive classrooms.

To achieve this end, two studies were undertaken. This chapter will provide an overview of the research methodology used for the two studies. More specifically, the guiding theoretical framework, the research designs, participant selection procedures, settings, data collection procedures, ethical considerations, instrumentation, and data analysis procedures, will be outlined. Refer to *Figure 3* for an overview of the two studies.

Study 1

Research Design: Within-participants pre-test/post-test quasi-experimental design

Data Collection Methods: 5-part questionnaire before and after taking part in the inclusive education university Subject.

Pre-Stage	Subject Delivery	Post-Stage
PSTs complete 5-part questionnaire *before* taking part in the Subject (n = 113)	PSTs undertake 10 week inclusive education Subject	PSTs complete 5-part questionnaire *after* taking part in the inclusive education Subject (n = 67)
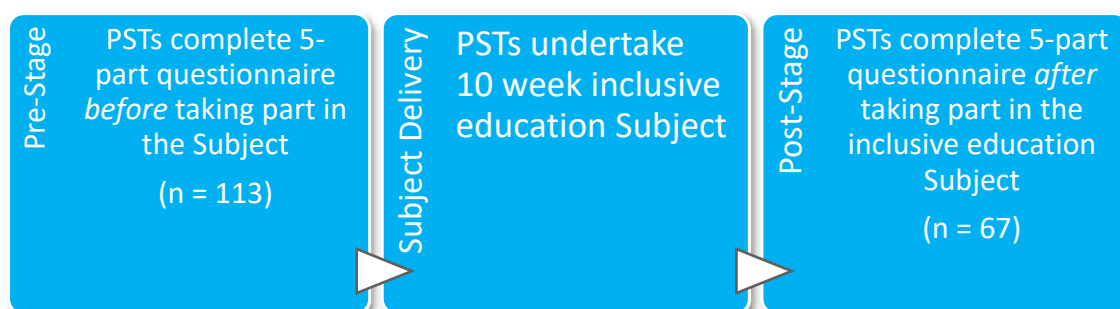
Study 2

Research Design: Observational Study

Data Collection Methods: Structured observation schedule (including semi-structured interviews before and after observation session) while on school placement.

Post-Stage	School Placement
PSTs complete 5-part questionnaire *after* taking part in the Subject (n = 4)	Observations of PSTs using the IPCOS for the duration of a lesson (n = 4)
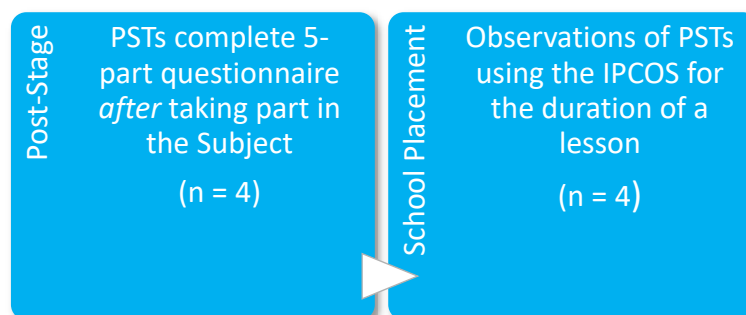
Figure 3. Research Overview.

Note: Each of the four participants were observed on three separate occasions for the duration of a lesson

Theoretical Framework

Applying a theoretical model to research allows for the conceptualisation of the variables in relation to each other and also supports the investigation of such variables in a systematic way. The Theory of Planned Behaviour (TPB) (Ajzen, 1991) was used as a guiding framework for the present research. TPB offered a framework within which to investigate the variables related to preparedness, investigating the relationships among the variables, and to make predictions from the variables.

The TPB (extended from the original Theory of Reasoned Action) outlines four key elements that influence an individual's behaviour. Namely; attitudes, subjective norm, perceived behavioural control and intentions. Specifically, the theory asserts that one's attitudes, subjective norm and perceived behavioural control are independent constructs which are determinants of one's intentions, which in turn, strongly predict actual behaviours (Ajzen, 1987). In the case of inclusive education, a teacher who has a positive attitude towards responding to diversity (attitudes), feels their behaviour is typical within their specific culture and is socially supported (subjective norm), and believes they have sufficient knowledge and skills regarding how to include individuals with disabilities (perceived behavioural control), is likely to have an intention to act inclusively and facilitate inclusion.

PST concerns about implementing inclusive education were measured in this research. This construct does not fit neatly within the TPB. However, previous research has conceptualised concerns to teach in inclusive classrooms as a representation of PSTs' subjective norm within the TPB (Aiello & Sharma, 2018; Sharma et al., 2015). That is, because PSTs do not regularly work in a school, it is difficult to measure subjective norm consistently. Given the TPB model was not being tested in this current research (it is a guide), concerns were therefore conceptualised as a background variable that have the potential to explain some of the variance in intention to perform inclusive behaviours.

Study 1

Research Design

Study 1 used a one-group pre-test/post-test design. This quasi-experimental, within-participants design involves pre-testing a single group of participants, administering a treatment or intervention, followed by post-testing using the same measure (Salkind, 2010). The one-group pre-test-post-test design is commonly used to assess the impact of a particular program (Allen, 2017). In this case, the cohort of PSTs was administered a questionnaire at the beginning of the inclusive education Subject and the same questionnaire was administered at the end, 10 weeks later. Importantly, a comparison or control group (where no treatment condition was given) was not practical given all participants were enrolled in the Subject and had to fulfill the coursework requirements. However, this was deemed acceptable given the research took place in a practice setting. In other words, given the study took place in an authentic university setting, it was not practical or ethical to randomly allocate participants to an intervention or control group or to deny some participants exposure to the Subject content (Shek & Sun, 2012).

Inclusive Education University Subject Overview

It is recognised that in order to make inclusion a reality in the classroom, there is a need for better preparation and teacher support (Sharma, 2018). Therefore, teacher preparation courses should target: knowledge and theory (i.e. head), ethical and moral attitudes (i.e. heart) and pragmatic skills (i.e. hands), to improve inclusive education practices (Shulman, 2004). This theoretical basis is also known as the '3H' model. This theory was used as a model to guide the construction of the current Subject. More specifically, university educators co-developed and collaborated with in-service teachers to create the inclusive education Subject for PSTs. By including in-service teachers in the university classroom, the

partnership served to bridge the gap between research and learning at university and authentic classroom situations.

The overall aim of the Subject was to promote PST preparedness to teach diverse student populations. The university Subject was entitled 'Inclusive Education: Teaching Diverse Learners' and was developed in 2018. The Subject aimed to develop student understanding of how they can respond to increasing diversity in classrooms and differentiate their teaching to meet the needs of students with a range of abilities. PSTs taking part in the Subject were also supported to develop an inclusive disposition towards student differences.

The expected workload for PSTs enrolled in the Subject was a minimum total 144 hours per semester comprising:

- Contact hours for on-campus students: 2 contact hours per week (10 weeks in total) comprising of workshops and online activities.
- Additional requirements: independent study to make up the minimum required hours per week

Other than the face-to-face workshops, students had access to an online course management system (i.e. Moodle) which contained all course administrative information, assessment tasks and workshop slides. The course management system also allowed the university teaching staff to post announcements regarding the weekly workshop content and assignments. Furthermore, discussion forums were available for students to post questions and/or discussion topics regarding the Subject content and assignments.

The overall outcomes for students participating in the Subject were to:

1. Critically analyse their own professional practice to identify and address beliefs, attitudes and practices that exclude and disadvantage some students (based on

their gender, race or learning abilities) from achieving academic success and learning outcomes.

2. Develop understanding of a range of factors that have an impact on students' access to, participation in and learning outcomes at school. Such factors include: physical, social and intellectual characteristics, gender, language, religion, culture, race, sexual orientation, socio-economic status or disabilities,

3. Identify strategies to support student participation and engagement in classroom activities

4. Demonstrate understanding of legislative requirements and teaching strategies that support participation and learning of students with a disability

5. Evaluate teaching strategies that support the academic achievement and learning outcomes of all students.

These outcomes were clearly stated and discussed during each face-to-face workshop.

In the 2-hour weekly workshops students were expected to have read the weekly readings and to be prepared to actively engage in class discussions. The following teaching strategies were used to introduce and discuss the weekly content:

- Role play - Drawing on key concepts, students will develop the essential skills of communication and learning

- Case-based teaching - Drawing on real examples from the filed across the years to illustrate key content points

- Peer assisted learning - Drawing on our peers to answer group discussion questions and problem solve

- Seminars - Students will review key core content during the face to face workshops

For a detailed overview of the Subject's weekly workshop content, the corresponding learning objectives and resources, refer to Table 2 below.

Table 2.

Outline of the Subject: Weekly Workshop Overviews, Associated PST Outcome/s and Reading Resources.

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
1	**Title**: Welcome to inclusive education **Content**: • 'Getting to know you' activity for students • Overview of the Subject's outcomes • Understanding diversity • Labelling students • Medical and social models of disability • Video: https://www.ted.com/talks/stella_young_i_m_not_your_inspiration_thank_you_very_much • Small group discussion: defining inclusion, mainstreaming and integration • Integration, mainstreaming and inclusion explained • 'Special Education' compared to mainstream education • Overview of assignment tasks • Overview of Australian Professional Standards for Teachers	2. Develop understanding of a range of characteristics and factors including physical, social and intellectual characteristics, gender, language, religion, culture, race, sexual orientation, socio-economic status or disabilities, that have an impact of students' access to, participation in and learning outcomes at school	**Required**: • Ashman, A. (2014). *Education for inclusion and diversity*. Pearson Australia: Chapter 1 **Additional**: • Graham, L. (2006). Done in by discourse-or the problem/s with labelling. • Snow, K. (2007). People first language. *Disability is Natural, http://www.disabilityisnatural.com/peoplefirstlanguage.htm (accessed June 4, 2007).*

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
2	**Title**: Legislation and policy requirements **Content**: - Discuss relevant Subject outcome (number 4) - Discuss in pairs or trios how schools are providing/observing inclusive education policy - Overview of Australian legislative framework and policy: Melbourne Declaration on Educational Goals for Young Australians (MCEETYA, 2008); ACARA on student diversity; Disability Discrimination Act (1992); Disability Standards (2005); - Group discussion: Barriers students face in schools - Overview of the Nationally Consistent Collection of Data for Students with Disabilities - Video: Impact of policy reforms on individuals (https://www.youtube.com/watch?v=IgHnntaUQ7I). This was followed by a discussion about the video - Overview of Assignment task 1 provided	4. demonstrate understanding of legislative requirements and teaching strategies that support participation and learning of students with a disability	**Required**: - Ashman, A. (2014). *Education for inclusion and diversity*. Pearson Australia: Chapter 2 - Guidelines for the Nationally Consistent Collection of Data on School Students with Disability 2017 **Additional**: - Anderson, J., & Boyle, C. (2015). Inclusive education in Australia: rhetoric, reality and the road ahead. *Support for Learning*, *30*(1), 4-22. - Florian, L. (2014). What counts as evidence of inclusive education?. *European Journal of Special Needs Education*, *29*(3), 286-294. - Lamb, S., Jackson, J., Walstab, A., & Huo, S. (2015). Educational opportunity in Australia 2015: Who succeeds and who misses out. http://www.mitchellinstitute.org.au/wp-content/uploads/2015/11/Educational-opportunity-in-Australia-2015-Who-succeeds-and-who-misses-out-19Nov15.pdf

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
3	**Title**: Inclusive teaching pedagogies: Universal design for learning (UDL) **Content***:* • Nationally Consistent Collection of Data for Students with Disabilities (NCCD): steps for data collection' • Video: Principals and teachers discussing NCCD (http://www.schooldisabilitydatapl.edu.au/illustrations-of-practice/video-detail/adjustments-examples) • Overview of differentiation and universal design for learning (UDL) • Reflection activity: Differentiation in practice • Discussion: What do you know about differentiation? What do you want to know about differentiation? • Overview of differentiation: ACARA definition; videos: https://www.youtube.com/watch?v=akvDT9KFZPw, https://www.youtube.com/watch?v=1ob4eGz04G4;	3. Identify strategies to support student participation and engagement in classroom activities 5. Evaluate teaching strategies that support the academic achievement and learning outcomes of all students.	**Required**: • Ashman, A. (2014). *Education for inclusion and diversity*. Pearson Australia: Chapter 3 **Additional**: • Katz, J. (2013). The Three Block Model of Universal Design for Learning (UDL): Engaging students in inclusive education. *Canadian Journal of Education*, *36*(1).

- Group discussion: facilitators and challenges for differentiation

- Overview of facilitators of differentiation

- Overview of challenges of differentiation

- Case example of an Individual Education Plan

- Overview of personalized learning

- Video: the myth of average (https://youtu.be/4eBmyttcfU4)

- Discussion: What challenges to participation might students with disabilities or diverse needs face in your classrooms when there is one teaching and learning approach/resource employed?

- Blooms Taxonomy overview

- Activity and discussion: Create a differentiated task and share the task with the class

- Rubric review of assignment 1

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
4	Title: Inclusive teaching pedagogies: Universal design for learning (UDL) **Content**: • Discussion/reflection on quote: "Inclusion [is] about understanding that intelligence takes many forms and finding ways to accept every one of them in the classroom" (Lydia Wayman) • Overview of UDL • Video: UDL in action (https://www.youtube.com/watch?v=pGLTJw0GSxk) • Group reflection/discussion: Think of your practices and/or those you've observed on placement. Have you seen universal design for learning being used? How? And in what ways? • Overview of the Primary Brain Networks: Recognition; Strategic; Affective. • UDL guidelines and what it means in practice • Case example of UDL • UDL research evidence base • Group activity: Form groups of three. Each member takes the lead for the discussion of one element of UDL (multiple means of representation, action/expression, engagement). This about a lesson you have • taught or observed. Use the UDL graphic organiser available here to discuss the ways in which this lesson is universally designed. Are there ways you could improve the lesson to be in-line with UDL guidelines? • Compare and contrast differentiation and UDL.	3. Identify strategies to support student participation and engagement in classroom activities 5. Evaluate teaching strategies that support the academic achievement and learning outcomes of all students.	**Required**: • Ashman, A. (2014). Education for inclusion and diversity. Pearson Australia: Chapter 4 **Additional**: • Courey, S. J., Tappe, P., Siker, J., & LePage, P. (2013). Improved lesson planning with universal design for learning (UDL). Teacher Education and Special Education, 36(1), 7-27.

• Discussion/reflection activity: How will you use UDL and/or Differentiation in your teaching? What are effective facilitators or challenges of using UDL and/or Differentiation in your practices? UDL resources discussed and provided regarding: implementation (http://www.udlcenter.org/implementation); toolkits (http://www.udlcenter.org/implementation/classroomresources/toolkits); examples of UDL (http://www.udlcenter.org/implementation/examples)

. Identify strategies to support student participation and engagement in classroom activities

5. Evaluate teaching strategies that support the academic achievement and learning outcomes of all students.

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
5	**Title**: Inclusive teaching strategies: Collaborative learning arrangements **Content**: • Overview of collaborative learning arrangements: collaborative learning and the Australian Professional Standards of Teaching; practices such as: cooperative learning, peer-tutoring, reciprocal teaching • Overview of the benefits of collaborative learning for students that require more support and for students who offer assistance • Cooperative learning overview: what is it?; key components; research evidence; examples • Overview of structured learning groups and roles within groups (researcher, scribe, presenter, captain). Video examples provided: https://www.teachingchannel.org/videos/structured-groups and https://www.teachingchannel.org/videos/ups-problem-solving-strategy • Monitoring Cooperative Skills: example checklist for teachers provided • Discussion: Determine the objectives of the lesson (both academic and social skills objectives), the size of groups, the method of assigning students to groups, the roles students will be assigned, the materials needed to conduct the lesson, and the way the room will be arranged; Explain the task and positive interdependence; Monitor students' learning and intervene in the groups to provide task assistance or to increase students' interpersonal and group skills; Evaluate students' learning and help students process how well their groups functioned.	3. Identify strategies to support student participation and engagement in classroom activities 5. Evaluate teaching strategies that support the academic achievement and learning outcomes of all students.	**Required**: • Ashman, A. (2014). *Education for inclusion and diversity*. Pearson Australia: Chapter 5 **Additional**: • Ayvazo, S., & Aljadeff-Abergel, E. (2014). Class-wide peer tutoring for elementary and high school students at risk: listening to students' voices. *Support for Learning*, *29*(1), 76-92. • Luke, A., Dooley, K., & Woods, A. (2011). Comprehension and content: Planning literacy in low socioeconomic and culturally diverse schools. *The Australian Educational Researcher*, *38*(2), 149-166. • Spörer, N., Brunstein, J. C., & Kieschke, U. L. F. (2009). Improving students' reading comprehension skills: Effects of strategy instruction and reciprocal teaching. *Learning and instruction*, *19*(3), 272-286.

- Group activity: using jigsaw technique, plan a lesson activity and assign group learning roles
- Overview of reciprocal teaching: what is it?; research evidence; example with video (https://www.youtube.com/watch?v=jw85MszBG6o);
- Discussion: How can I do reciprocal teaching in the classroom?
- Discussion: How would you plan a reciprocal teaching activity?
- Overview of peer-learning: What is it?; what does it look like (https://www.teachingchannel.org/videos/ell-peer-tutoring-inps); different types of peer-tutoring; examples of how to do it in the classroom;
- Activity in pairs: Implementing peer-learning.

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
6	**Title**: Inclusive teaching strategies: Assessment for Learning **Content**: • Activity in small groups: discuss what assessment means to you • Overview of relevant standards from the Australian Professional Standards for Teachers • Overview of assessment in inclusive classrooms: assessment for learning, assessment as learning, assessment of learning • Activity in table groups: discuss what your experiences in schools (as a student) of assessment OF learning? Also, in which subjects did you receive formative assessment FOR learning that helped you to make progress • Class based assessment for learning: formative assessment: types; guidelines to enhance learning; guidelines in relation to feedback; rubrics • Video: Peer assessment in action and self-assessment (https://www.youtube.com/watch?v=DqWCJZH8ziQ and https://www.youtube.com/watch?v=CkFWbC91PXQ) • Discussion: What reasonable adjustments could you make in assessing a range of student abilities? (keep the Nationally Consistent Collection of Data (NCCD) in mind to help make this decision. Reflect on week 2 topic and implementing it in practice) • Assignment 2: forming groups and topic allocation • Assignment 2 explained Overview of formative assessment and practice using 'exit tickets' as a strategy	3. Identify strategies to support student participation and engagement in classroom activities 5. Evaluate teaching strategies that support the academic achievement and learning outcomes of all students .	**Required**: • Bourke, R., & Mentis, M. (2014). An assessment framework for inclusive education: Integrating assessment approaches. *Assessment in Education: Principles, Policy & Practice*, *21*(4), 384-397. **Additional**: • Panadero, E., & Jonsson, A. (2013). The use of scoring rubrics for formative assessment purposes revisited: A review. *Educational research review*, *9*, 129-144. • Florian, L. (Ed.). (2013). *The SAGE handbook of special education: Two volume set*. Sage: Chapter 31

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
7	**Title**: Inclusive teaching strategies: Classroom management **Content**: • Overview of Positive Behaviour Support (PBS): what is it?; understanding the framework; founding principles (i.e. prevention, generalise behaviour across environments, whole-school approach, commitment from school leaders and community members, data driven, time, evidence-based practice, training of all school staff, partnership with families; benefits of PBS • Discussion: Out of the 10 principles discussed- which principle in your view is most crucial, and, why? • PBS in action video: https://www.lilydalewest.vic.edu.au/learning/positive-behaviour-support-pbs/ • Implementing PBS (explanation of 3-tiered system with associated examples for each tier) • Discussion: tiers of support and outcomes of PBS • Overview of challenging behavior and resource provided: http://www.pbisworld.com/ • Overview of Social Emotional Learning (SEL): core components (self-management, self-awareness, responsible decision making, relationship skills, social awareness) • Video of SEL in action: https://youtube/Do1R67Ek0NI • SEL in the current Australian curriculum: discussion of the general capabilities (https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/personal-and-social-capability/)	3. Identify strategies to support student participation and engagement in classroom activities 5. Evaluate teaching strategies that support the academic achievement and learning outcomes of all students	**Required**: • Ashman, A. (2014). *Education for inclusion and diversity*. Pearson Australia: Chapter 7 • Lewis, T. J., Mitchell, B. S., Trussell, R., & Newcomer, L. (2015). School-wide positive behavior support: Building systems to prevent problem behavior and develop and maintain appropriate social behavior. *Handbook of classroom management*, *2*, 40-59. **Additional**: • Luiselli, J. K., Putnam, R. F., Handler, M. W., & Feinberg, A. B. (2005). Whole-school positive behaviour support: effects on student discipline problems and academic performance. *Educational psychology*, *25*(2-3), 183-198. • Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal

• Discussion: What is your knowledge of SEL? How will you include it has an important part of your teaching?

• Research and benefits of SEL

Activity: Choose a lesson you have taught/observed; Identify the SEL skills taught; Align to the core competencies; Locate in the ACARA: at what level that capability is located?

interventions. *Child development*, *82*(1), 405-432.

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
8	**Title**: Inclusive teaching strategies: Professional Collaboration **Content**: • Overview of relevant Australian Professional Standards for Teaching • Collaborating with parents and professionals: overview of creating partnerships with parents; importance and overview of parent-teacher collaborations • Group discussion: observations about home-school collaboration while on placement. What phone calls did you make/observe, which students would you have called if you were their teacher, did you attend/participate in parent meetings?, How might you involve students if you feel that a family might find the school "hard to reach"? • Factors affecting family involvement in schools. • Overview of co-teaching: purpose; culture of collaboration; models of co-teaching (one lead/one support, alternative teaching, teaming, station teaching, parallel teaching); different purposes of modes; impact on students, impact on teachers.	3. Identify strategies to support student participation and engagement in classroom activities	**Required**: • Giangreco, M. F. (2013). Teacher assistant supports in inclusive schools: Research, practices and alternatives. Australasian journal of special education, 37(2), 93-106. • Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. Journal of educational and psychological consultation, 20(1), 9-27. **Additional**: • Lendrum, A., Barlow, A., & Humphrey, N. (2015). Developing positive school–home relationships through structured conversations with parents of learners with special educational needs and disabilities (SEND). Journal of Research in Special Educational Needs, 15(2), 87-96.

• Teaching assistants: overview of role and statistics in Australia, recommendations for how teachers could work with TAs
• Group activity: thumbs up/thumbs down with regard to paraprofessionals.
• With a specific case in mind discuss and respond to the following questions: What types of professional collaboration would be ideal in this situation?, How will the student's needs be supported?, How will the parents needs be considered?
Explain assignment two and give opportunity for questions.

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
9	**Title**: Reflective practice on attitudes and concerns **Content**: • Case study analysis: Select a case study relevant to your specific context; pair with someone with similar experiences; in pairs or threes: Identify examples of inclusion and explain why they are inclusive practices; Identify exclusionary examples of inclusion in this case study and explain why they aren't inclusive practices; Identify ways that the system could manage things differently; One or two groups present back to the class or discuss on Moodle • Video: teaching and learning (https://www.youtube.com/watch?v=0glFJMYv1JY) • Reflection activity: Look at the APST standards and do an assessment now: • Use Traffic light: Red (Still need to learn (maybe PD a here?)), Orange (I am almost there), Green (I got this one)	1. Critically analyse their own professional practice to identify and address beliefs, attitudes and practices that exclude and disadvantage some students (based on their gender, race or learning abilities) from achieving academic success and learning outcomes	**Required**: • Loreman, T., Deppeler, J., & Harvey, D. (2010). *Inclusive education: Supporting diversity in the classroom*. Allen & Unwin: Chapter 12 **Additional**: • Sharma, U., & O'Connell, M. (2007). Designing for learning: action reflections. *Reflective Practice*, *8*(3), 433-446.

- Reflection activity: In pairs reflect on the following and the APST: What were your learning goals for EDF3211? Which ones have you completely or partially met (can you now successfully document)? Which ones remain existing goals? What plans can you form for meeting these? What is the timeline for enacting these plans?
- Further discussion of Assignment 2 rubric and what to include in presentation

Week	Workshop Overview	Related Subject Outcome	Required and Additional Readings for Students
10	**Title:** Reflective practice: Inclusive teaching practice **Content**: - Case study discussion: What barriers does Ian experience? What facilitators do you recognise? How can you reduce barriers in Ian's situation? How consistent is this with the legal obligations of schools? - Overview of 'becoming an inclusive teacher' and discussion: Knowing how to identify barriers to learning/participation and plan accordingly for inclusive teaching; Selecting appropriate evidence-based practices for use in responding to the needs of particular students and discuss these how these can be understood with reference to the context of a whole class (e.g. class wide, targeted, intensive	1. Critically analyse their own professional practice to identify and address beliefs, attitudes and practices that exclude and disadvantage some students (based on their gender, race or learning abilities) from achieving academic success and learning outcomes	**Required**: - Sharma, U. (2010). Using reflective practices for the preparation of pre-service teachers for inclusive classrooms. In *Teacher Education for Inclusion* (pp. 128-137). Routledge. **Additional**: - Plack, M. M., & Greenberg, L. (2005). The reflective practitioner: reaching for excellence in practice. *Pediatrics*, *116*(6), 1546-1552.

practices); Evaluating your progress towards becoming an inclusive educator. What key knowledge and/or skills have you developed this semester? How do these skills/knowledges relate to your prior beliefs? What are your remaining priorities for developing your skills as an inclusive educator?

Importantly, the teaching approach of the university educators varied depending on the campus at which the students attended. The Subject was offered at two campuses. PSTs attending Campus A (city) tutorials had their lessons co-taught by a university academic and an in-service teacher. More specifically, co-teaching involved the shared practice by two or three teachers working together with the PSTs. While often one of the teachers adopted the lead teacher role (to manage the workshops), all teachers shared instruction, had equal voices, presence, and roles within the workshops. Also, at Campus A, some members of the teaching team were selected because they were employed at schools where some of the PSTs were to be placed for their practicum. This was to facilitate continuity of support between university education and school placements. At Campus B (semi-urban), a more traditional one-teacher model was adopted. Thus, PSTs at Campus B were only taught by a university academic.

Assessment Tasks

With regard to the assessment tasks, students were required to complete a reflective practices journal and a group presentation on inclusive teaching and learning strategies.

Task 1

Assessment task 1 was a reflective practice journal. The task was 2000 words in total and contributed to 50% of the student's total mark. Part one of the task involved the students reflecting on and describing three situations they observed while on a previous placement in which they observed inclusive practice in action (or not) for a particular learner/s. Part two involved the student choosing one of these three situations and describing it in detail, critically engaging with the literature, and demonstrating a response to the following guiding questions:

- What was the situation that was observed? What occurred?

- What was the lead to the practice? What triggered the incident?

- What was the PST's or teacher's response?

- What was the outcome?

- What does the literature indicate about the teaching practice?

- Is the observed practice supported or not supported by research?

- How does the practice relate to the principles of inclusion?

- What policies relate to this practice?

- What does the policy state?

- How do they impact the inclusive practice or observation?

- Does the teaching practice address the needs of the student or the class?

- What are the possible outcomes of this selected teaching practice?

The student's written responses were assessed according to the following criteria:

- Reflect on three situations or incidents briefly to demonstrate your understanding of inclusion in action (10 marks)

- Reflect and further discuss/extend one of the three situations or incidents (10 marks)

- Research, evaluation and critical engagement with scholarly sources (20 marks)

- Standard of academic literacy including proper referencing conventions, organisation and language presentations (10 marks)

Task 2

Assessment task 2 was a group presentation on inclusive teaching and learning strategies. Part 1 of the task required the students to film a 15-minute presentation about an inclusive classroom strategy. Students were instructed to conceptualise this presentation as professional development workshop for teachers. Students were divided into groups and

asked to select topics. Students could select their own teaching strategy or select one of the following:

- Reciprocal teaching

- Peer tutoring

- Assessment for learning

- Working with teaching assistants (aides, paraprofessionals)

- Co-teaching (partnering or team teaching with another teacher)

- Developing partnerships with families (home-school collaboration, parental involvement)

- PBS (positive behaviour support strategies)

- SEL (social and emotional learning programmes/strategies)

- Inclusive Pedagogical Approach in Action (IPAA) framework

- Working collaboratively with teacher aides, paraprofessionals and agencies

- Working with students from diverse religious backgrounds

A guide to the specific content of the presentation was offered to the students. It was suggested that PSTs consider:

1. A description of the classroom context: Who are your students? Reflect the range of diverse learners in your class

2. Consider the class wide needs and individual needs of students

3. A clear explanation of your chosen inclusive teaching strategy

4. How does your chosen teaching strategy support student learning needs, participation or engagement in classroom activities?

5. Literature on the efficacy and effectiveness of the strategy in the classroom

6. How will you evaluate this teaching strategy to ensure it supports the academic achievement and learning outcomes of all students, including students with physical, social and intellectual characteristics, gender, language, religion, culture, race, sexual orientation, socio-economic status or disabilities?

Part 2 of the task involved either creating a lesson plan that included the teaching practice or an information sheet about the chosen teaching practice (2000 words equivalent). PSTs' were informed that all group presentations were going to be complied into an inclusive strategies 'tool-kit' to be used as a future teaching resource. PSTs were also provided with suggestions as to what to include in the information sheet. These included:

- A summary of your the chosen teaching practice

- Activities you could do with a class that includes all students, including those with disabilities

- A useful resource for supporting the needs of vulnerable students.

All students were encouraged and expected to contribute equally to the group task. Also the students were individually assessed according to the following criteria:

- Description of classroom context (10 marks)

- Description and rationale of inclusive teaching strategy (15 marks)

- Discussion of the efficacy and evidence base of teaching strategy based on research (10 marks)

- Lesson plan OR Information sheet that includes the inclusive teaching strategy (10 marks)

- Presentation (5 marks)

Questionnaire

A five-part questionnaire was used. Data from PSTs regarding their attitude, intention, self-efficacy and concerns about inclusive practices in the classroom was collected using self-report questionnaires. Additionally, a number of background variables were investigated. Lastly, two open-ended response questions focusing on barriers and facilitators of inclusive education were included.

Survey packages including explanatory statements, consent forms and questionnaires were distributed, completed and returned, during class-time (these forms are included in Appendix A and B). Participants were informed that the purpose of the study was to understand their views about inclusive education and that their responses to the self-report measures will have no bearing on their university course. Moreover, maintaining confidentiality and deidentifying the data was of the utmost concern. Responses that may have led to the identification of individuals through the questionnaire were not included in the final analysis. Also, all collected data was only to be accessed by the researchers and stored for 5 years, as per university procedure.

Instrumentation

Background Variables

The background variables were not recorded with a formal instrument. The variables included: age category, gender, highest educational qualification, future grade level to teach, direct experience with people with disability, nature of the relationship with people with disability, time in contact with people with disability, level of confidence to teach inclusively, level of education in inclusive education, disability status of the participant and the level of knowledge of local education acts and policies related to inclusive education.

To investigate PST perceptions of barriers and facilitators of inclusive education two qualitative questions were included in the background section of the questionnaire. Refer to *Figure 4*, which presents these two questions.

Figure 4. Qualitative questions investigating barriers and facilitators of inclusive education

Attitudes towards Inclusion Scale (AIS)

The AIS is a newly developed scale designed to measure respondents' attitudes towards inclusive education (Sharma & Jacobs, 2016). This scale was constructed following a literature review aiming to elucidate key themes in research investigating attitudes towards inclusion. Ten themes were uncovered and operationalized to correspond with ten items. Examples include: "I am excited to teach students with a range of abilities in my class." and "I believe that all students regardless of their ability should be taught in regular classrooms." Two negatively worded items with poor inter-item correlations were deleted from the original scale (Sharma & Jacobs, 2016). Respondents could respond to each item using a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7). Therefore, scores range from 8-56, with higher scores indicating the respondent has more positive views regarding inclusion. Reliability was tested in a sample of 349 Indian teachers as well as 253 Australian teachers. Reliability alpha scores were ≥.74 (Sharma & Jacobs, 2016). Also, the AIS was

found to have a two-factor structure. This included: Attitudes (beliefs) and Attitudes (feelings) (Sharma & Jacobs, 2016).

Teacher Efficacy in Implementing Inclusive Practices scale (TEIP)

The TEIP is an 18-item questionnaire that produces a total score ranging from 18-108. A higher score on the TEIP indicates a higher perceived level of teaching efficacy to work in diverse classrooms. The items are presented in the form of a statement and respondents are asked to determine the degree to which they agree or disagree using a six-point Likert type scale (1 = Strongly Disagree; 2 = Disagree; 3 = Disagree Somewhat; 4 = Agree Somewhat 5 = Agree, and 6 = Strongly Agree). Sharma, Loreman and Forlin (2012) conducted factor analytic research which indicated a three-pronged factor structure including: Efficacy to use inclusive instruction (For example: "I am confident in designing learning tasks so that the individual needs of the students with disabilities are accommodated"), Efficacy in collaboration (for example: "I can assist families in helping their children do well in school") and Efficacy in managing behaviour (for example: "I am able to get children to follow classroom rules") (Sharma, Loreman, & Forlin, 2012). These factors were elucidated using a large sample of teachers across four countries (Australia, Canada, Hong Kong, and Indonesia). Reliability alpha scores ranged from .86-.91 across the four countries and the internal consistency of each factor was adequate, ranging from .64-.97 (Sharma et al., 2012). The scale is widely used and is found to have high reliability across different international contexts (Loreman, Sharma, & Forlin, 2013; Park, Dimitrov, Das, & Gichuru, 2016).

Concerns about Inclusive Education Scale (CIES)

The CIES is a 21-item questionnaire yields a total score ranging between 21-84. The items are presented in the form of a statement and respondents are asked to determine the

degree of concern using a four-point Likert scale (4= extremely concerned, 3 = very concerned, 2 = a little concerned, and 1 = not at all concerned). Higher scores indicate the respondent has a higher degree of concern towards working in an inclusive classroom. Factor analysis of the measure was conducted with an Indian sample (Sharma & Desai, 2002). The internal consistency of the four *concern* factors and the total CIE scale has been reported to be adequate (Sharma & Desai, 2002). They were 0.82, 0.70, 0.84 and 0.74 for 'concerns about resources' (Factor one), 'concerns about acceptance' (Factor two), 'concerns about academic standards' (Factor three) and 'concerns about work load' (Factor four), respectively. The coefficient alpha for the entire scale with the three parts taken in totality was 0.91 (Sharma & Desai, 2002). The scale has been used internationally (Bradshaw & Mundia, 2006; Chhabra, Srivastava, & Srivastava, 2010) and the coefficients were found to be 0.88 and 0.93 for the total scale at pre and post sample.

Intention to Teach in Inclusive Classroom Scale (ITICS)

The ITICS is a newly developed scale designed to measure respondent's intentions to act inclusively in inclusive classrooms, not their beliefs (Sharma & Jacobs, 2016). This 7-item measure uses a 7-point Likert-type response format with scores ranging from extremely unlikely (1) to extremely likely (7). Scores range from 7-49 with a higher score indicating a greater intention to teach in inclusive classrooms. Each item was framed in such a way that the educator's intention to act inclusively was addressed. Examples of items include: the teacher will "Change the curriculum to meet the learning needs of a student with learning difficulty enrolled in your class.", and "Change the assessment tasks to suit the learning profile of a student who is struggling (e.g. providing longer time to complete the task or modifying test questions)." Items for this scale were identified based on the same review undertaken to develop the AIS. Reliability was tested in a sample of 349 Indian teachers as

well as 253 Australian teachers. Reliability alpha scores for the samples were above 0.74 (Sharma & Jacobs, 2016). Also, a two-solution factor structure was found for this scale. The two factors were: intention to consult and intention to change the curriculum. While Intentions (to consult) scales showed acceptable levels of reliability (.74), the Intentions (to change curriculum) sub-scale was below .7 in both the Australian and Indian samples (Sharma & Jacobs, 2016). Therefore this sub-scale may warrant additional items and further analysis.

Data Collection

Ethics

This project was approved by Monash University Human Research Ethics Committee (MUHREC) and informed consent was sought for all participants taking part in the research. Furthermore, participation in this study was treated confidentially and all information is stored anonymously and securely on password-protected hardware. Appendix C presents the ethics approval form.

Questionnaires/observation measures were fully de-identified during a transcription process, before being securely destroyed. As the participation in this research was treated confidentially and all information kept anonymously, no one will be able to identify the participants. Data collected was stored in keeping with Monash University rules. More specifically, it is stored on the University premises, in a locked filing cabinet, and a password protected computer, for next 5 years.

Participants

The population of focus were third-year PSTs enrolled in an inclusive education Subject in part fulfilment of their Bachelor of Education degree. All PSTs had had a similar amount of placement experience provided throughout the degree. All participants in this

research were fully informed about the true nature of the research and informed consent was obtained. Responses to the questionnaire were sought from all PST who attended workshop sessions. The total population was 198 students and the sample consisted of 113 students (before the Subject) and 67 (after the Subject content). Purposive sampling was used. This non-probability sampling method simply involved selecting/not selecting participants based on the judgement of the researcher.

Setting

The study took place in tutorial rooms at two campuses at Monash University in Victoria, Australia. Both campuses offered the coursework Subject. Campus A was located in the city and held two workshop sessions consisting of 63 and 58 students each. As previously mentioned, all workshops at this campus were co-taught. Campus B was located in a semi-urban environment. This campus had 3 workshop sessions with 25, 26 and 26 students in each. Each workshop was taught by one lead teacher.

Procedure

The questionnaires were conducted at the beginning and end of the Subject. They were collected at Monash University Tutorial Rooms at both Campus A and Campus B. The researcher administered and collected the questionnaires in person.

After completing informed consent for the questionnaire phase of the study, participants completed the six-part questionnaire once at the end of the first class in and again at the end of the final class. This involved using 10 minutes to complete the questionnaire using paper and pen. Participants who did not want to take part in the survey were given the option to leave. When the researchers provided an overview to PSTs about the project, students were informed that participating or not participating in this research will have no

impact on their assessment and results in the Subject. Also, it was explained that the research was not a part of the course requirements and would not affect the way they were assessed in the Subject.

Data Analysis

Table 3 outlines the data analysis techniques employed for Study 1. These techniques are presented in line with the research questions.

Table 3.

Research Questions and Corresponding Data Analysis Techniques

Research Question	Type of Data	Data Analysis Technique
Research Question 1: What were the levels of attitudes, concerns, efficacy and intentions expressed by PSTs at pre-stage and post-stage towards inclusive education?	*Quantitative*	*Mean score comparisons*
Research Question 2: Was there a significant relationship between PST's attitudes and intention to teach in inclusive classrooms before (and after) undertaking the Subject on inclusive education?	*Quantitative*	*Pearson Correlation*
Research Question 3: Was there a significant relationship between PSTs' teaching-efficacy and their intention to act out inclusive teaching practices before (and after) undertaking the Subject on inclusive education?	*Quantitative*	*Pearson Correlation*
Research Question 4: Was there a significant relationship between PST's concerns and intentions to teach in inclusive classrooms before (and after) undertaking the Subject on inclusive education?	*Quantitative*	*Pearson Correlation*
Research Question 5: Were PST's intentions to teach in inclusive classrooms predicted from their attitudes, sense of teaching efficacy and concerns (before and after taking the Subject)?	*Quantitative*	*Standard Multiple Regression*
Research Question 6: Were there significant relationships between the background variables and PST's attitudes, teaching efficacy, concerns and intentions (both before and after the Subject)?	*Quantitative*	*Kruskal-Wallis H tests*
Research Question 7: Does taking part in the inclusive education university Subject have an impact on PST's attitudes, concerns, teaching efficacy and intentions to teach inclusively?	*Quantitative*	*Paired-Samples T-test*

Table 3.

Research Questions and Corresponding Data Analysis Techniques

Research Question	Type of Data	Data Analysis Technique
Research question 8: Was there a difference on measures of attitudes, concerns, teaching efficacy and intentions between the PSTs of Campus A and B following participation in the inclusive education Subject?	*Quantitative*	*Paired-Samples T-test and Independent Samples T-test ('difference scores')*
Research Question 9: What do PSTs perceive to be facilitators and barriers to inclusive education (both pre/post taking part in the Subject)?	*Qualitative*	*Thematic Analysis*

In line with the recommendation of Hankins, French, and Horne (2000), preliminary analyses were conducted to check the assumptions of normality, linearity, multicollinearity and homoscedasticity.

To understand the levels of the PST affective variables, the mean overall scores for the participants across the four scales were calculated and compared.

Pearson product-moment correlations were used to examine the individual relationships between teacher attitudes, teacher efficacy and intention, and concerns. This addressed research questions 2-4. This technique is a measure of the strength of a linear relationship between two variables and is represented by the 'r' coefficient. Values range from +1 to -1. A value of 0 indicates no association, while a value of greater than 0 indicates a positive association.

Standard regression analysis was employed at pre-and post-stages to measure the predictive utility of attitudes, teaching efficacy, concerns in explaining outcome variance pertaining to intentions and to answer research question 5. This entailed entering all predictor variables into the equation simultaneously.

To answer research question 6, a series of Kruskal-Wallis H tests were used. This test was used in order to determine if there were significant differences in total scores of the AIS, TEIP, CIES and ITICS with regard to each level of the background variables. Therefore, for each of the total scores relating to attitudes, concerns, teaching efficacy and intentions, 12 separate tests were conducted.

In order to understand the impact of the Subject and answer research question 7, Paired-Samples T-tests were conducted. The Paired Samples t-test compares two means that are from the same individual and in this study the two means represent two different time points. Furthermore, it was necessary to split the data file according to the 'campus' variable to answer Question 8. Paired-samples t-tests were conducted to evaluate whether a statistically significant difference existed between the mean total scores on the AIS, ITICS, CIES, and TEIP when the results were split according to campus (Campus A and Campus B). Also, in order to provide further evidence that the observed differences between campuses could be due to differences in the Subject delivery (and not due to heterogeneity of samples), multiple independent samples t-tests were conducted on the calculated 'difference-scores' (this feature is explored in greater detail in the proceeding chapter).

Lastly, Thematic Analysis was used to investigate Research Question 9. Thematic analysis is a commonly used qualitative method that is often poorly explained (Braun & Clarke, 2006). However, it is a highly flexible method which is best suited to describing key features of large data sets generated from open-ended questions (Guest, MacQueen, & Namey, 2012)

In a bid to provide some reliability to the Thematic Analysis procedure, the process was conducted according to Braun and Clarke's (2006) procedure for conducting thematic analysis. This process consisted of six steps. Firstly, the all responses to the two open-ended questions were read through three times and initial ideas for codes were recorded. Secondly,

all items were systematically reviewed and manually coded. Also, codes were matched up with extracts that were deemed important examples. Thirdly, having coded and collated all data, this information was sorted into potential themes. This involved analysing the relationships between various codes and organising them according to preliminary themes. Fourth, the themes were reviewed and refined. Fifth, the themes were defined and named. Lastly, all codes were tabulated under the finalised themes along with corresponding extracts that typified the themes.

Study 2

Research Design

Study 2 used a correlational design including classroom observations. More specifically, naturalistic observations in the classroom were utilized. This involved using a structured observation schedule and the researchers did not intervene in the setting. This method increases the ecological validity of observations (Bronfenbrenner, 1977).

Instrumentation

Inclusive Practices Observation Schedule

The IPCOS is a recently developed observational checklist aiming to identify practices employed by effective inclusive teachers (Sharma & Sokal, 2016). In order to develop this measure, literature on inclusive education was reviewed to locate studies investigating practices associated with effective inclusive teachers. The 35-item revised scale will be utilised. Each item begins with the stem "The teacher…" followed by an observable behaviour. Examples include: "relates learning activities to students' personal and family experiences.", "uses a variety of instructional strategies within the learning activity to engage all students.", "plans instruction to address the strengths of students". Observers are

instructed to rate each item based on how often the behaviour was observed using one of the five ratings (Always, Frequently, Sometimes, Infrequently and Not Observed). It is important that ratings are based on observed behaviours and not the reports from the teacher interviews. Higher scores on the measure indicate that a teacher is using more inclusive practices compared to lower scores. The IPCOS is attached in Appendix D.

An important feature of this measure was the need to train observers to ensure reliability of observations. Therefore, a 3-hour training session was completed by all research assistants. This involved learning about the measure and rating a YouTube video of an inclusive classroom. Also, to further bolster the likelihood of agreement between research assistants, verbal instructions indicating how to rate the measure were provided. More specifically, respondents were asked to rate a behaviour as "always" if the observed teacher could not have demonstrated any better behaviour than what was observed. Also, each rating criterion was explicitly explained. For example: a rating of 'sometimes' will be assigned to a behaviour if "the behaviour is evident sometimes but not always when opportunities are present". Following this training process, inter-observer agreement was sought in a simulated setting. This involved watching videos of lessons and using the checklist. Then inter-rater agreement was calculated. A percentage of agreement of 80% or above is considered an appropriate level of reliability.

Data Collection

Ethics

This project was approved by Monash University Human Research Ethics Committee (MUHREC) and informed consent was sought for all participants taking part in the research. Furthermore, participation in this study was treated confidentially and all information is stored anonymously and securely on password-protected hardware. Observation and

interview findings were fully de-identified during a transcription process, before being securely destroyed. As the participation in this research was treated confidentially and all information kept anonymously, no one will be able to identify the participants. Data collected was stored in keeping with Monash University rules. More specifically, it is stored on the University premises, in a locked filing cabinet, and a password protected computer, for next 5 years.

Participants

Following the Study 1, participants were informed about Study 2 and invited to provide their contact details if they were interested in taking part in the next phase of the study. Interested respondents were then contacted to take part in the next phase of the research. Four PSTs from different classes (across two different campuses) agreed to be observed during their placement.

Setting

Observations of PST took place across 4 different public primary schools throughout Victoria, Australia. Three of the teachers were placed in the south east of the state and one was placed in the north east.

Procedure

Observations took place following Study 1 and were arranged ahead of time. Therefore, the PSTs were aware that they were being observed. Given the participants were not consistently employed at a school, these observation sessions coincided with their university practicum at a school.

In order to ensure reliability, observations were structured and lasted approximately 50 minutes per session (or the length of one lesson). Also, a trained research assistant independently scored the observation measure for a teacher on three occasions for a full lesson, sitting separately at the back of the classroom to ensure they did not collude with each other. Prior to the observation, a short semi-structured interview was conducted. This involved asking the participants about their intentions for the lesson, what outcomes they will focus on and any special considerations that may have influenced their plan. These responses were recorded digitally and transcribed.

After the lesson, teachers were administered another short semi-structured interview to determine if the lesson was conducted according to plan and whether the proposed outcomes were achieved. Results from the interviews were not analysed but provide context to help understand the classroom ecology and practices that were observed. Inter-observer reliability was calculated by examining recorded observations and determining the percent agreement between the two raters (McHugh, 2012). To obtain a measure of percent agreement the total number of ratings in agreement was calculated, then the total number of ratings was counted and finally, the total number of ratings was divided by the ratings in agreement. This was then converted to a percentage.

Data Analysis

Table 4 outlines the research question and corresponding data analysis technique for Study 2.

Table 4.

 Research Question and Corresponding Data Analysis Technique

Research Question	Type of Data	Data Analysis Technique
10. Was there a significant relationship between PSTs' intentions, teaching efficacy, concerns, attitudes, and their observable inclusive practices after taking part in the Subject on inclusive education?	*Quantitative*	*Spearman Rho*

Spearman Rho correlations were used to examine the relationships between the variables of interest and actual rating of inclusive practice from authentic classroom situations (research question 1). Due to the small sample size ($N = 4$), Spearman rho correlations will be computed to understand the relationships among various constructs. Spearman rho correlation coefficient (rs) denotes the strength of the monotonic relationship between the paired data, and it does not assume normality in distribution as a prerequisite. This analysis technique will help to explain the non-parametric correlations among the variables and observable inclusive practices.

Chapter 5: Results

Overview of Research:

The present research stems from the recognition that there is a need to understand the practices of PSTs' for implementing inclusion using behavioural observations. Furthermore, it is of value to understand these practices in conjunction with the variables relating to the Theory of Planned Behaviour (TPB), including attitudes, teaching-efficacy, concerns and intentions. Taken together, these variables can be used as an approximation of a PST's readiness for inclusive education.

Two studies were conducted. The primary purpose of Study 1 ('Pre and Post Stage Analysis') was to determine which variables predicted a PST's intention to teach in inclusive classrooms before participating in the Subject on inclusive education and after completing the Subject. The secondary purpose of Study 1 was to develop an understanding of the impact of the newly developed coursework Subject on PST attitudes towards inclusion; teaching efficacy for inclusive education; levels of concerns about inclusion; and intentions to teach in inclusive classrooms. For Study 1 data was used from both the pre and post questionnaire.

The purpose of Study 2 ('Understanding Inclusive Practices') was to examine the relationship between PST attitudes, self-efficacy and concerns and intentions with regard to inclusive teaching practice. One research question was formulated related to this relationship. For Study 2, the data was used from the post questionnaire only (5-part questionnaire) along with classroom observation data (Inclusive Practices Classroom Observation Schedule – IPCOS).

Chapter 5 includes the results from Study 1 and 2. The two sections are structured according to the ten research questions as follows:

Study 1: 'Pre and Post Stage Analysis'

- PST-Participant characteristics

- Research Questions 1-9 (pre and post stage survey data)

Study 2: 'Understanding Inclusive Practices'

- PST-Participant characteristics

- Research Question 10 (post stage survey data and IPCOS data

Study 1: 'Pre and Post Stage Analysis'

The first study had two key purposes. Firstly, to determine which variables (attitudes, concerns & teaching efficacy) predicted PST's intentions to teach in inclusive classrooms before participating in the Subject on inclusive education and after completing the Subject. Secondly, to understand the impact of the newly developed coursework Subject on PST attitudes towards inclusion; teaching efficacy for inclusive education; levels of concerns about inclusion; and intentions to teach in inclusive classrooms. A description of the PST-participants is presented first, followed by each of the nine research questions and the corresponding findings.

Pre-Service Teacher Participant Characteristics

The survey sample were third-year PSTs enrolled in the Subject focused on inclusive education at a university in Victoria, Australia. This coursework subject was undertaken in part fulfilment of their Bachelor of Education degree.

A total of 113 PST participants completed the survey at the beginning of the inclusive education coursework Subject. Each participant was then assigned a unique code in order to be able to match their responses with the post-stage responses. Ten weeks later at the post-

stage, 67 participants completed the survey again. See *Table 1* for a summary of the participant's demographic variables at both stages of the study.

At pre-stage, 18 (15.9%) participants were male, and 95 (84.1%) were female. They attended either Campus A (54 or 47.8%) which used a 'team-teaching' model of teacher education or Campus B (59 or 52.2 %) which used a 'single-teacher' model of teacher education. A majority of the participants were below 25 years old (99 or 87.6%). The remaining participants were between 25-30 years old (10 or 8.8%), 31-35 years old (1 or 0.9%), 36-40 years old (2 or 1.8%) and above 40 years old (1 or 0.9%) respectively.

At pre-stage, 91.1% of PST-participants indicated that they had previously participated in some form of university education for inclusive education. 44 (38.9%) participants reported having undertaken one subject previously, 10 (8.8%) reported that inclusive education content was taught across other subjects, 35 (31%) had completed two subjects and 14 (12.4%) had completed more than two. Furthermore, PSTs also indicated that they wished to teach secondary (11 or 9.7%), primary and secondary (15 or 13.3%), and primary and preschool (1 or 0.9%).

Table 5 presents the background variables for participants at pre-stage and post-stage of the study.

Table 5

The Background Variables for Participants at Pre-Stage and Post-Stage of the Study.

	Pre-Stage Participants		Post-Stage Participants	
	n	Frequency (%)	n	Frequency (%)
Gender	*113*		*67*	
Male		*18 (15.9%)*		*10 (14.9%)*
Female		*95 (84.1%)*		*57 (85.1%)*
Age	*113*		*67*	
Below 25 years		*99 (87.6%)*		*59 (88.1%)*
25-30 years		*10 (8.8%)*		*4 (6%)*
31-35 years		*1 (0.9%)*		*1 (1.5%)*
36-40 years		*2 (1.8%)*		*2 (3%)*
Above 40 years		*1 (0.9%)*		*1 (1.5%)*
Campus	*113*		*67*	
Team-teaching Mode (Campus A)		*54 (47.8%)*		*26 (38.8%)*
Single-teacher Mode (Campus B)		*59 (52.2%)*		*41 (61.2%)*
Highest Educational Qualification	*112 (Missing=1)*		*67*	
Below Bachelor		*96 (85.7%)*		*59 (88.1%)*
Bachelor		*16 (14.3%)*		*8 (11.9%)*
Future grade level	*113*		*67*	
Primary		*86 (76.1%)*		*53 (79.1%)*
Secondary		*11 (9.7%)*		*4 (6%)*
Primary and Secondary		*15 (13.3%)*		*10 (14.9%)*
Preschool and Primary		*1 (0.9%)*		*-*
Direct experience with people with disability	*113*		*67*	
Yes		*93 (82.3%)*		*57 (85.1%)*
No		*20 (17.7%)*		*10 (14.9%)*
Nature of Relationship with person/people with disability	*93 (Missing=20)*		*58 (Missing=9)*	

Table 5

The Background Variables for Participants at Pre-Stage and Post-Stage of the Study.

	Pre-Stage Participants		Post-Stage Participants	
	n	Frequency (%)	n	Frequency (%)
Acquaintance		6 (6.5%)		4 (6.9%)
Casual		45 (48.4%)		26 (44.8%)
Close		28 (30.1%)		16 (27.6%)
Intimate		14 (15.1%)		12 (20.7%)
Relative amount of time participant has been in contact with people with disability (n = 93)	93 (Missing=20)		58 (Missing=9)	
Little to none		17 (18.3%)		8 (13.8%)
Some		36 (38.7%)		23 (39.7%)
High		40 (43%)		27 (46.6%)
Degree of success teaching diverse student populations	113		67	
Low		11 (9.7%)		5 (7.5%)
Average		75 (66.4%)		50 (74.6%)
High		9 (8%)		3 (4.5%)
No Opportunity		18 (15.9%)		9 (13.4%)
Level of confidence in teaching inclusively	113		67	
Low		29 (25.7%)		13 (19.4%)
Average		65 (57.5%)		45 (67.2%)
High		13 (11.5%)		7 (10.4%)
No Opportunity		6 (5.3)		2 (3%)
Level of Education you have in inclusive education	113		67	
None		10 (8.8%)		5 (7.5%)
1 unit/subject		44 (38.9%)		26 (38.8%)

Table 5

The Background Variables for Participants at Pre-Stage and Post-Stage of the Study.

	Pre-Stage Participants		Post-Stage Participants	
	n	Frequency (%)	n	Frequency (%)
The content has been taught in courses on other topics		*10 (8.8%)*		*8 (11.9%)*
2 units/subjects		*35 (31%)*		*22 (32.8%)*
More than 2 units/subjects		*14 (12.4%)*		*6 (9%)*
Does the participant have a documented disability	*113*		*67*	
Yes		*9 (8%)*		*7 (10.4%)*
No		*104 (92%)*		*60 (89.6%)*
Level of knowledge of local legislation or policy re I.E.	*113*		*67*	
None		*12 (10.6%)*		*7 (10.4%)*
Poor		*43 (38.1%)*		*22 (32.8%)*
Average		*48 (42.5%)*		*33 (49.3%)*
Good		*9 (8%)*		*5 (7.5%)*
Very good		*1 (0.9%)*		*-*

At post-stage, similar demographic proportions to the pre-stage sample were reported, 10 (14.9%) participants were male, and 57 (85.1%) were female and were mostly aged below 25 years (59 or 88.1%).

Similar to the pre-stage sample, at post-stage, 92.5% of participants had previously completed some form of tertiary-based education in inclusive education. 26 participants (38.8%) reported having undertaken one subject previously, 8 (11.9%) reported that inclusive education content was taught across other topics, 22 (32.8%) had completed two subjects and 6 (9%) had completed more than two. 5 (7.5%) reported no tertiary level education in

inclusion. In contrast to the pre-stage sample, a majority of participants who took part in the post-stage attended Campus B (41 or 61.2%), which used the 'single-teacher' model for teacher education.

Reliability Check of the Scales

Prior to conducting data analysis, the reliability of each of the scales (AIS, TEIP, CIES, ITICS) was determined at both the pre - and post stages of the study. The Cronbach alpha for the AIS, TEIP, CIES, ITICS at pre-stage were 0.858, 0.908, 0.916 and 0.776 respectively. The Cronbach alpha for the AIS, TEIP, CIES, ITICS at post-stage were 0.908, 0.912, 0.902 and 0.924 respectively.

Thus, all scales at pre-stage and post-stage had good internal consistency.

Research Question 1:

What were the levels of attitudes, concerns, efficacy and intentions expressed by PSTs at pre-stage and post-stage towards inclusive education?

To understand the levels of the PST affective variables, the mean overall scores for participants across the four scales were calculated. At the pre-stage analysis, participants total attitude mean score was 5.89. The mean value of the AIS score can range from 1 to 7, with higher scores indicating more positive attitudes towards inclusive education. A mean score of 5 suggests that participants 'slightly agree' with positive inclusive values, while a mean score of 6 suggests that participants 'moderately agree' with inclusive attitudes. Thus, overall, participants had moderately positive attitudes towards inclusive education when beginning the Subject.

Participants' overall mean concern score was 2.21. A mean of 2 on the concern scale suggests 'a little concern' about including students with disabilities in regular classrooms. Higher scores suggest greater concerns. These findings indicate that participants were not very concerned about including students with disabilities in their classrooms.

Moreover, participants' overall mean efficacy score was 4.45. The mean value of the TEIP score can range from 1 to 6, with higher scores indicating higher levels of teaching efficacy. A mean of 4 suggests that participants 'agree somewhat' that they are efficacious, while a mean score of 5 suggests that participants 'agree' they have teaching efficacy for inclusion. These findings indicated that participants 'agree' that they are efficacious when implementing inclusive education.

Lastly, participant's intentions mean score was 6.41. The mean value of the ITICS score can range from 1 to 7, with a higher score indicating a greater intention to teach in inclusive classrooms. A mean of 6 on the ITICS scale could be understood as meaning that participants perceived that they were 'very likely' to follow through with their intentions to

teach in an inclusive classroom. While a mean score of 7 suggested that participants were 'extremely likely' to follow through with their intentions about inclusive education. Importantly, higher scores on this measure indicate higher intentions to teach in inclusive classrooms. Thus, overall, the findings suggest that participants had high levels of intentions to teach in inclusive classrooms at the pre-stage.

At the post-stage analysis, participants had similar total mean levels of the variables (as measured by the four scales) compared to the pre-stage analysis. The overall mean score for the AIS was 6.00. Thus, participants had moderately high levels of positive attitudes towards inclusive education.

In addition, PSTs overall mean concern (as measured by the CIES) score was 2.22. This score was approximately equivalent to the pre-stage analysis findings. Therefore, participants appeared not 'very concerned' about including students with disabilities in their classrooms.

Further post-stage analysis, with regard to levels of teaching efficacy, showed that the mean overall score for Teaching-Efficacy was 4.49. This score was slightly higher than the pre-stage analysis. Therefore, this finding indicates that PSTs who participated in this study had moderately high levels of perceived teacher-efficacy to undertake inclusive teaching practices.

Lastly, measurement of PST intentions to teach in inclusive classroom revealed an overall mean score of 6.44. This suggests that PSTs had high levels of intentions to teach in inclusive classrooms. See Table 6 for a summary of the total mean scores for each scale at each stage of the study.

Table 6

Total Mean scores for the PST affective variables (Pre and Post stage).

	Total Mean ± Standard Deviation	
Instrument	Pre	Post
AIS (Attitudes)	5.89 ± 0.86 (*n* = 111)	6.00 ± 0.77 (n = 66)
ITICS (Intentions)	6.41 ± 0.54 (*n* = 111)	6.44 ± 0.51 (n = 66)
CIES (Concerns)	2.21 ± 0.52 (*n* = 110)	2.22 ± 0.49 (n = 66)
TEIP (Teaching-Efficacy)	4.45 ± 0.57 (*n* = 108)	4.49 ± 0.54 (n = 66)

Research Question 2:

Was there a significant relationship between PST attitudes and intention to teach in inclusive classrooms before (and after) undertaking the Subject on inclusive education?

Prior to conducting the analysis (examining the relationships between PST affective variables), a scatter-plot graph was generated to ensure there were no violations of the assumptions of linearity and homoscedasticity (Pallant, 2010). No gross violations of these assumptions were found.

Pearson product-moment coefficients among the PST affective variables were investigated and are presented in Table 7 (pre-stage) and Table 8 (post-stage) respectively. The findings of these analysis procedures were undertaken to answer research questions two, three and four.

Firstly, the relationship between PST attitudes (as measured by AIS) and intentions (as measured by the ITICS), at pre-stage were examined. A medium positive relationship between these two variables, $r = .454$, $n = 111$, $p = .000$ was found. Thus, higher scores for measures of attitudes were associated with higher scores for intentions. Based on the findings it

appeared that participants with more positive attitudes towards inclusive education were more likely to have higher intentions to teach in inclusive classrooms.

Table 7

Correlations for Intentions (Pre-Stage)

	AttitudeTotal	IntentionTotal	ConcernsTotal	Tchr.EfficacyTotal
AttitudeTotal (n = 111)	-	.454**	-.342**	.268**
IntentionTotal (n = 110)		-	.006	.188
ConcernsTotal (n = 109)			-	-.469*
TEfficacyTotal (n = 106)				-

Note. ** Correlation is significant at the .01 level

At the post-stage analysis, a larger positive relationship between attitudes and intentions was found, $r = .510$, $n = 66$, p = .000. Therefore, more positive attitude scores towards inclusive education were associated with higher intention scores. These findings suggest that after undertaking the inclusive education Subject participants with more positive attitudes towards inclusive education were more likely to have higher intentions to teach in inclusive classrooms.

Table 8

Correlations for Intentions (Post-Stage)

	AttitudeTotal	IntentionTotal	ConcernsTotal	TEfficacyTotal
AttitudeTotal (n = 66)	-	.510**	-.287*	.222
IntentionTotal (n = 66)		-	-.257*	.358**
ConcernsTotal (n = 67)			-	-.398**
TEfficacyTotal (n = 66)				-

Note. ** Correlation is significant at the .01 level; *Correlation is significant at the .05 level

Research Question 3:

Was there a significant relationship between PSTs' teaching-efficacy and their intention to act out inclusive teaching practices before (and after) undertaking the Subject on inclusive education?

At the pre-stage, participants' teaching efficacy scores had a weak and non-significant relationship with their intention scores, $r = .18$, $p = .054$. In contrast, after completing the Subject, a medium positive relationship between teaching efficacy and intentions, $r = .358$, $n = 66$, $p = .003$, was found. Therefore, higher levels of teaching efficacy for inclusive education were associated with higher levels of intention to teach in inclusive classrooms.

Research Question 4:

Was there a significant relationship between PST's concerns and intentions to teach in inclusive classrooms before (and after) undertaking the Subject on inclusive education?

At the pre-stage, the relationship between PSTs' concerns and intentions was not found to be significant ($r = .006$, $p = .948$). It appeared that their reported levels of concern were not related to their intention to teach in inclusive classrooms.

At post-stage, a small significant negative relationship between the concerns of PSTs regarding inclusive education and their intentions, $r = -.257$, $n = 67$, $p = .036$, was found. These findings indicate that after undertaking the inclusive education coursework Subject, participants with a lower level of concern about inclusive education were more likely to have a higher level of intention to teach in inclusive classrooms.

The relationship amongst the three variables of attitudes, teaching efficacy and concerns was also examined. At pre-stage, a significant positive relationship between PST attitudes and their teaching efficacy, $r = .268$, $n = 108$, $p = .006$, was found. This indicates that participants with positive attitudes were more likely to have higher levels of self-efficacy about their inclusive teaching abilities. No such significant relationship was found at the post-stage.

Moreover, at the pre-stage there was a medium negative correlation between participants attitudes and concerns, $r = -.342$, $n = 108$, $p = .000$. This suggests that higher levels of attitudes towards inclusion were associated with lower levels of concerns about inclusive education. At post-stage, there was also a significant relationship between attitudes and concerns. A small negative correlation between the two variables, $r = -.342$, $n = 108$, $p = .000$, was found. This indicates that upon Subject completion, their positive attitudes

towards inclusion were related to a reduction in concerns about teaching in an inclusive setting or vice versa.

Furthermore, at pre-stage, there was a medium, negative correlation, r = -.469, n = 106, p = .000, between participants' concerns and teaching efficacy. Therefore, at pre-stage, lower levels of concern were associated with higher levels of teaching efficacy. Similarly, at post-stage, there was a medium, negative correlation, r = -.398, n = 66, p = .001 between the two variables. Therefore, after completing the inclusive education Subject, the participant's concerns were negatively related to their perceived level of teaching efficacy.

This study was conceptualised with the rationale that in order to build intentions to teach in inclusive classrooms, PSTs needed to have developed positive attitudes towards inclusion, low levels of concerns and a high degree of inclusive teaching self-efficacy. See *Figure 5* for a summary of the correlations between these variables at both pre - and post-stages. The numbers in the non-bold typeface refer to the pre-stage and the bold numbers refer to the post-stage analysis.
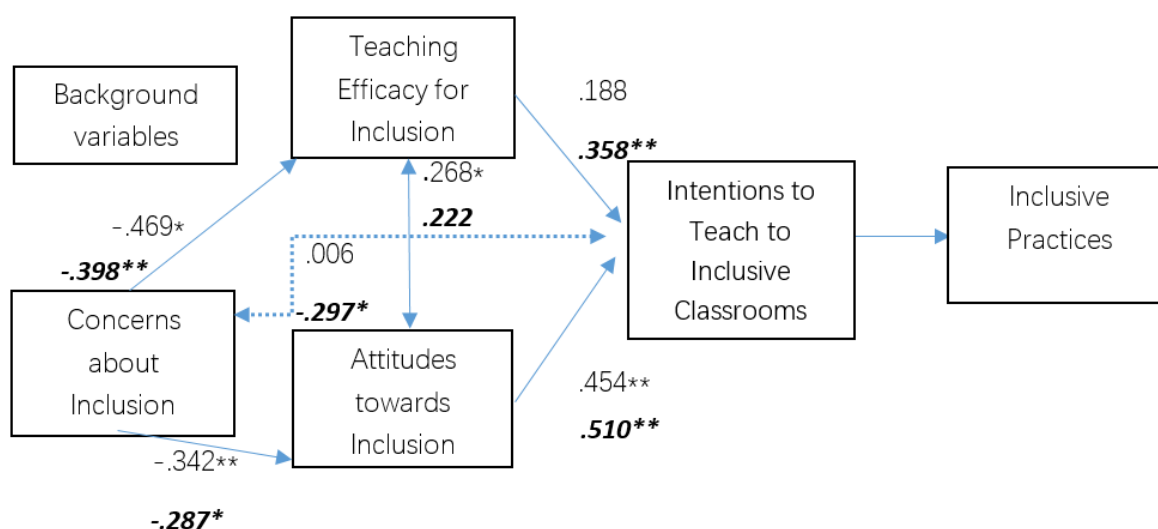
Figure 5. Summary of Correlations relating to the model of Quality Inclusive Teaching at Pre- and Post-Stages.

Note. Numbers in **bold** refer to the post-stage correlations.

At pre-stage, the findings indicated that there was a significant negative correlation between concerns and teaching efficacy as well as concerns and attitudes. Furthermore, there was a significant positive relationship between attitudes and intentions. However, the relationship between teaching efficacy and intentions was not significant. At post-stage, the relationship between all three variables was statistically significant. More specifically, the results suggest that there was a significant negative correlation between concern scores and attitude scores, concern scores and teaching efficacy scores and concerns scores and intention scores. There was also a significant positive relationship between teaching efficacy scores and intentions as well as attitudes scores and intentions scores.

Research Question 5:

Were PST's intentions to teach in inclusive classrooms predicted from their attitudes, sense of teaching efficacy and concerns (before and after taking the Subject)?

To measure the predictive utility of attitudes, teaching efficacy, concerns in explaining outcome variance pertaining to intentions, a standard multiple regression was conducted both pre-stage and post-stage. In a standard multiple regression, all predictor variables are entered into the equation simultaneously. Each independent variable is evaluated in terms of its predictive power, over and above that offered by the other independent variables. This approach helped explain how much unique variance in intentions each of the predictor variables explained.

Preliminary analyses were conducted to ensure no violation of the assumptions of linearity, multicollinearity, normally distributed residuals, and homoscedasticity. Also, outliers were checked for. In this standard regression, attitude, concerns and teaching efficacy were all entered together. The results showed that overall, at pre-stage, the total variance in intentions explained by the model was approximately 24.8%, $F_{(3,100)} = 11.02.$, $p < .00$. Two

of the predictor variables (attitudes, β = .48, p < .01; concerns, β = .22, p < .05) positively and

substantially correlated with PSTs' intentions to be inclusive. Among these two variables,

attitude was found to be the strongest predictor, while concerns explained less variance. In

contrast, teaching efficacy did not significantly explain any further variance in intention

scores (see Table 9).

Table 9

Summary of the Standard Regression Analysis for Variables Predicting teachers' Intentions (before the Subject).

Variable	*B*	Standard Error of *B*	*β*	*p value*	*95% Confidence Interval*
CONSTANT	24.78	4.44		.00	15.98-33.59
Attitude	.26	.05	.48	.00	.16-.36
Concern	.08	.04	.23	.03	.01-.14
Teaching Efficacy	.06	.04	.16	.16	-.01-.13

The same procedure for analysis was conducted with the post-stage data. The results

showed that overall, the total variance in intentions explained by the model was

approximately 33.8%, F (3, 61) = 10.40, *p* < .01. In contrast to the pre-stage regression model

attitudes (*β* = .43, p < .01) and teaching efficacy (*β* = .30, p < .05) positively and substantially

correlated with preservice teachers' intentions to be inclusive. Concerns did not significantly

explain any further variance in intention scores. See Table 10 for a summary of the results of

the standard regression for the variables predicting teachers' intentions prior to undertaking

the Subject.

Table 10

Summary of the Standard Regression Analysis for Variables Predicting Teachers'
Intentions (after the Subject)

Variable	*B*	Standard Error of *B*	*β*	*p* value	95% Confidence Interval
Constant	30.32	4.41		.00	21.51-39.14
Attitude	.17	.04	.43	.00	.09-.26
Concern	-.01	.04	-.03	.81	-.08-.07
Teaching Efficacy	.09	.04	.30	.01	.02-.16

In summary, at pre-stage, the best predictors were attitudes, but concerns also
significantly explained scores in intentions. At post-stage, the best predictors were attitudes
and teaching efficacy. Overall, when looking at pre- and post-stage data together, prediction
was dominated by attitudes. When comparing the *R*-Squared values (pre-stage to post-stage),
the post stage model explained more variability in intention scores.

Research Question 6:

**Were there significant relationships between the background variables and
PST's attitudes, teaching efficacy, concerns and intentions (both before and after the
Subject)?**

A series of Kruskal-Wallis H tests were used to discover if the demographics variables
significantly influenced scores on AIS, TEIP, CIES and the ITICS. For each of the
background variables (Gender; Age; Ed_Qual; Grade_lvl; Direct experience; Relationship;
Contact time; Success; Confidence; Level of I.E; Disability Status; Legislation and policy
knowledge) Kruskal-Wallis H tests were conducted in order to determine if there were
significant differences in total scores of the AIS, TEIP, CIES and ITICS with regard to each

level of the demographic variables. Therefore, for each of the total scores relating to attitudes, concerns, teaching efficacy and intentions, 12 separate tests were conducted. This process was undertaken with the pre-stage and post-stage data respectively. Overall, no significant relationships between the background variables and the key constructs were found at both stages. Refer to Appendix E for a summary of these analyses.

Research Question 7:

Does taking part in the inclusive education university Subject have an impact on PST attitudes, concerns, teaching efficacy and intentions to teach inclusively?

To understand the impact of the Subject on participants' attitudes, concerns, teaching efficacy and intentions, paired samples t-tests were conducted. Assumption testing indicated no gross violation of assumptions. Moreover, effect sizes were also calculated using eta squared (η^2) for all significant findings at the total and subscale level. Effect size describes the amount of total variance in the dependent variable that can be predicted by the independent variable (Tabachnick, Fidell, & Ullman, 2007).

As Table 11 indicates, the paired-participant's concerns, teaching efficacy and intentions changed significantly. Notably, there was no significant change in the total mean attitude score. Furthermore, the total subscale scores for each instrument were investigated in order to better understand changes in scores on specific constructs.

Table 11

Paired-Samples t-test results for change in total score and sub-scales of the AIS, ITICS, CIES, and TEIP

Instrument	Total Scores ± Standard Deviation		Total Change	t	η ²
	Pre	Post			
AIS total *(n = 65)*	**47.94 ± 6.01**	**49.60 ± 7.25**	**-1.66**	**-1.91**	
Beliefs *(n = 66)*	23.32 ± 3.84	24.44 ± 3.77	-1.12	-1.74	
Feelings *(n = 66)*	24.59 ± 3.45	25.20 ± 3.95	-.61	-.92	
ITICS total *(n = 65)*	**45.23 ± 3.43**	**46.26 ± 2.85**	**-1.03**	**-2.86****	**.05**
Intention to alter the Curriculum (n = 67)	18.46 ± 2.27	19.25 ± 2.29	-.79	-2.05*	.03
Intention to Consult (n = 66)	26.66 ± 1.67	26.50 ± 2.80	.16	.43	
CIES total *(n = 66)*	**46.71 ± 10.18**	**43.45 ± 9.21**	**3.26**	**3.12****	**.04**
Concerns about resources (n = 66)	15.89 ± 3.50	14.91 ± 3.38	.98	1.69	
Concerns about Acceptance (n = 67)	12.10 ± 2.87	10.91 ± 2.38	1.19	2.41*	.03
Concerns about Academic Standard (n = 67)	10.38 ± 3.20	9.60 ± 2.85	.79	1.50	
Concerns about Workload (n = 67)	8.29 ± 2.66	8.06 ± 2.67	.24	.54	
TEIP total *(n = 64)*	**80.75 ± 9.60**	**83.97 ± 9.50**	**-3.22**	**-3.30****	**.06**
Efficacy in Instruction (n = 67)	28.55 ± 3.20	29.46 ± 3.07	-.91	-1.53	
Efficacy in Behaviour (n = 65)	25.29 ± 4.03	26.02 ± 4.25	-.72	-1.00	
Efficacy in Collaboration (n = 67)	27.31 ± 4.24	28.67 ± 3.84	1.35	-1.83	

Notes. * *p < .05; ** p < .01*

While a slight increase in total mean attitude score from pre-to-post stage (mean difference = -1.66) was found, the results of this comparison were not significant. Examination of the subscale scores for the AIS revealed that there were no significant differences between two time points at the subscale level as well.

The total mean concern scores significantly changed from pre-to-post-stage, t (65) = 3.12, p =.003. The total change score was 3.26 yet the effect size was small (η^2 = .04), based on Cohen's conventions (Cohen, 1988). Examination of the subscale scores relating to concerns revealed change for one of the four subscales. The subscale scores relating to 'Concerns about Acceptance" by others, was significant, t (66) = 2.41, p = .020. The total change score was 1.19 and the effect size was small (η^2 = .03), (Cohen, 1988). In summary, PSTs' overall level of concerns about inclusive education was reduced after taking part in the inclusive education Subject. More specifically, PST concerns regarding other students' acceptance of students with diverse needs was significantly reduced.

There was a statistically significant difference between the total mean teaching efficacy scores before and after an inclusive education Subject, t (63) = -3.30, p =.002. The total change score was -3.22. The effect size was small (η^2 = .06) (Cohen, 1988). Examination of the subscale scores for the TEIP revealed that there was no significant difference between the two-time points at the subscale level.

The change in intentions scores from pre-to-post-stage was significant, t (64) = -2.87, p =.006. The increase in mean total score was -1.03. The effect size was small (η^2 = .05) (Cohen, 1988). Examination of the sub-scale scores for the "Intention to alter curriculum" revealed that there was a significant change, t (66) = -2.05, p = .044. The effect size was small (η^2 = .03) (Cohen, 1988). These findings indicated that intentions to alter the curriculum for inclusion increased following the Subject.

In summary, following the inclusive education Subject, participants were more likely to have developed higher intentions to teach in inclusive classrooms. In addition, PST intentions relating to changing the curriculum were significantly increased.

Research question 8:

Was there a difference on measures of attitudes, concerns, teaching efficacy and intentions between the PSTs of Campus A and B following participation in the inclusive education Subject?

Given the recognition that the inclusive education Subject included different models of PST education depending on the campus attended, it was necessary to split the data file according to the 'campus' variable. Paired-samples t-tests were conducted to evaluate whether a statistically significant difference existed between the mean total scores on the AIS, ITICS, CIES, and TEIP when the results were split according to campus (Campus A and Campus B). Also, effect sizes were calculated using eta squared (η^2) for all significant findings at the total and subscale level.

Overall, all variables (attitudes, teaching efficacy, concerns and intentions) significantly changed only at Campus A. Results from Campus B showed similar changes in the signs and direction. However, these changes were not found to be statistically significant. See Table 12 below.

Table 12

Paired-Samples t-test results for change in total score of the AIS, ITICS, CIES, and TEIP (split by campus)

Instrument	Total Scores ± Standard Deviation		Total Change	t	η^2
	Pre	Post			
Campus A					
AIS total *(n = 26)*	48.27 ± 6.46	50.65 ± 5.37	-2.39	**-2.22***	.11
ITICS total *(n = 24)*	45.29 ± 3.48	47.29 ± 2.42	-2.00	**-3.29***	.27
CIES total *(n = 25)*	49.20 ± 11.48	44.64 ± 11.42	4.56	**3.04****	.09
TEIP total *(n = 24)*	79.38 ± 10.67	85.79 ± 10.89	-6.42	**-4.10****	.66
Campus B					
AIS total *(n = 39)*	47.72 ± 5.77	48.90 ± 8.24	-1.17	-.93	-
ITICS total *(n = 41)*	45.20 ± 3.45	45.66 ± 2.95	-.46	-1.09	-
CIES total *(n = 41)*	45.20 ± 9.11	42.73 ± 7.63	2.46	1.74	-
TEIP total *(n = 40)*	81.58 ± 8.97	82.88 ± 8.54	-1.30	-1.12	-

Notes. * *p < .05;* ** *p < .01*

Attitudes towards Inclusive Education

Campus A (co-teaching Mode)

A statistically significant change between the total mean attitude scores before and after the inclusive education Subject was found, t (25) = -2.22, p =.036. The total change score was -2.39 and the effect size was moderate (η^2 = .11) (Cohen, 1988). These findings indicate that at Campus A, attitudes towards inclusive education significantly increased following the completion of the inclusive education Subject.

Campus B (Single-Teacher Mode)

While there was an observed increase in total mean attitude scores from pre-to-post stage (total change score: -1.17), the results of this comparison were not significant. In

summary, at Campus B, attitudes towards inclusive education did not significantly increase following the completion of an inclusive education Subject.

Concerns about inclusive education

Campus A

The change in total mean concern scores between pre- and post-stages was significant $t(24) = 3.04$, I =.006. The decrease in mean total score was 4.56 and the effect size was moderate ($\eta^2 = .09$) (Cohen, 1988). These findings indicate that overall, there was a significant decrease in the participant's concerns towards inclusive education after taking part in the inclusive education Subject.

Campus B

While there was an observed decrease in total mean concerns scores over time, the results of this comparison were not significant. Thus, at Campus B, there was no significant change in concerns after completing the inclusive education Subject.

Teaching Efficacy for Inclusion

Campus A

A statistically significant difference existed between the total mean teaching efficacy scores before and after an inclusive education Subject, $t(23) = -4.10$ $p = .000$. The increase in mean total score was -6.42 and the effect size was large ($\eta^2 = .66$) (Cohen, 1988). These results indicate that at Campus A, teaching efficacy for inclusion significantly increased after taking part in the inclusive education Subject.

Campus B

There was an observed increase in total mean teaching efficacy scores from pre-stage to post stage. However, the results of this comparison were not significant. Therefore, at Campus B, there was no significant change in teaching efficacy for inclusion after completing the inclusive education Subject.

Intentions to teach in inclusive classrooms

Campus A

The change in total mean intentions scores after completing the Subject, was significant, t (23) = -3.29, p =.003. The increase in mean total score was -2.00 and the effect size was large (η^2 = .27) (Cohen, 1988). These findings suggest that, at Campus A, following the completion of the Subject, participants were more likely to have higher intentions to teach in inclusive classrooms.

Campus B

While there was an observed increase in total mean intention scores, the results of this comparison were not significant. Therefore, at Campus B, there was no significant change in intentions after completing the inclusive education Subject.

Difference Scores Analysis

In order to provide further evidence that the observed differences between campuses is likely due to differences in the Subject delivery (and not due to heterogeneity of samples), multiple independent samples t-tests were conducted. Prior to performing the data analysis, 'difference scores' were calculated. This involved subtracting the pre-stage mean total from the post-stage mean total score for each affective teacher variable. Therefore, four new

variables were created corresponding to the change in attitudes, intentions, concerns and efficacy. These difference scores have less variation than the pre- and post-mean scores. Thus, analyses using difference scores may have more statistical power than analyses conducted on just post-test scores (Salkind, 2006).

The first step of conducting the independent samples *t*-test was Levene's test for equality of variance. This tests whether the variance of scores for the two groups (Campus A; Campus B) was the same. In other words, the assumption of homogeneity of variance was tested and found to be satisfied, for each of the four t-tests. Therefore, equal variances were assumed. Next, by examining each statistic and the corresponding p value, it was determined whether or not there was a significant difference in the 'difference scores' for each of the Campus groupings. See Table 13 for the results of the t-tests and descriptive statistics for difference scores relating to attitudes, intentions, concerns and efficacy by Campus.

Table 13

Results of independent samples t-tests and Descriptive of Attitude Diff, Intentioned, Concerns_Diff and Efficacy_Diff by Campus

Outcome	Group								
	Campus A				Campus B			95% CI for Mean		
	M	SD	n		M	SD	n	Difference	t	df
Attitude_Diff	2.38	5.48	26		1.18	7.93	39	-2.37, -4.78	.67	63
Intention_Diff	2.00	2.98	24		.46	2.73	41	.09, 2.99	2.12*	63
Concerns_Diff	-4.56	7.49	25		-2.46	9.05	41	-6.40, 2.21	-.97	64
Efficacy_Diff	6.42	7.66	24		1.30	7.33	40	1.27, 8.96	2.66**	62

Notes. * p < .05 and ** p < .01

Results of the first independent samples *t*-test showed that the mean difference score for attitudes did not significantly differ between PST who attended Campus A and those who attended Campus B. Similarly, the mean difference score for concerns also did not significantly differ between PST who attended Campus A and those who attended Campus B.

In contrast, an independent samples t-test showed that the mean difference score for intentions significantly differed between Campus A and Campus B, *t* = 2.12, df = 63, p = .038. Thus, students who attended Campus A demonstrated greater average difference scores for intentions when compared to their peers who attended Campus B.

Lastly, the mean difference score for teaching efficacy differed between Campus A and Campus B, (*t* = 2.66, df = 62, p = .010, 95% CI for mean difference .1.27 to 8.96). Thus, students who attended Campus A demonstrated greater average difference scores with regard to teaching efficacy when compared to their peers who attended Campus B.

In summary, prior to conducting the independent samples t-tests, paired samples t-tests (split by campus) revealed that at Campus A, all affective variables significantly changed from pre- to post-stage. Therefore, it was necessary to further delineate potential reasons for the difference between campuses. It appears that average difference scores at Campus A for teaching efficacy and intention were significantly different from Campus B. This adds further credibility to the notion that the Campus conditions significantly influenced PST' 'readiness' variables.

Research Question 9:

What do PSTs perceive to be facilitators and barriers to inclusive education (both pre/post taking part in the Subject)?

PSTs completing the survey at both stages of the research were asked two questions relating to research question nine. Firstly, PSTs were asked to list three factors that would

facilitate inclusion for all students in their future classroom. Secondly, participants were asked to list three factors that would hinder the inclusion of all students in their future classrooms. The PSTs identified a range of facilitators and barriers to implementing inclusive education in the classroom. The responses were three sentences or single words each relating to a different facilitator or barrier depending on the question. Importantly, some responses could be coded in multiple ways., To avoid this, all instances where more than one meaning could be inferred were separated into different responses. For example: 'teachers require knowledge and resources' was separated into 'knowledge' and 'resources', and assigned different codes.

In a bid to provide reliability to the thematic analysis procedure, the process was conducted according to Braun and Clarke's (2006) procedure for conducting thematic analysis. This process consisted of six steps. Firstly, the all responses to the two questions were read through three times and initial ideas for codes were recorded. Secondly, all items were systematically reviewed and manually coded. Also, codes were matched up with extracts that were deemed important examples. Thirdly, having coded and collated all data, the first author sorted them into preliminary themes by analysing the relationships between the codes. This process was iterative in nature and themes were revised until all responses were coded under a single theme. Fourthly, the themes were reviewed and refined. Also, subthemes were created at this stage. Fifthly, the themes and subthemes were defined and named. Lastly, all codes were tabulated under the finalised themes along with corresponding extracts that typified the themes.

Thematic analysis and the process of coding is often criticised because authors do not provide sufficient detail about the procedure or enough transparency in the inter-coder reliability process (Hammer & Berland, 2014). In order to establish reliability of the coding process, two raters independently assessed all responses to both questions. The percentage

agreement was calculated. For pre-stage and post-stage facilitators there were 510 codes (316 at pre-stage, 194 codes at post-stage), of which 14 were not initially agreed upon. Therefore, percentage agreement was, 97%. After discussion, consensus was reached for all codes. For pre and post stage barriers, 479 codes (290 at pre-stage and 189 at post-stage) of which 17 were not initially agreed upon. Therefore, percentage agreement was, 96%. After discussion, consensus was reached.

In addition to calculating the percentage agreement for the codes, the sub-themes relating to 'facilitators' and the corresponding main themes were negotiated to ensure appropriateness of the organisation of the data. For question 13, 108 (Pre-stage) and 67 (Post-stage) responses were recorded, revealing a broad array of aspects relating to perceived facilitators. These responses were organised (through the process of thematic analysis) into 316 and 194 codes respectively. Initially, the first author generated 25 subthemes from these codes. After discussion, some sub-themes were merged and 13 sub-themes were agreed upon across both stages of analysis. These subthemes were organised in three overarching main themes. The sub-themes of 'Parents/Families' and 'Attitudes and Views' were initially not agreed upon. These subthemes were discussed and were deemed to be 'Ongoing learning' and 'Teacher personal attributes' respectively.

The sub-themes relating to 'barriers' and the corresponding main themes were also negotiated to ensure appropriateness of the organisation of the data. For question 14, 103 (Pre-stage) and 67 (Post-stage) responses were recorded, revealing a broad array of aspects relating to perceived barriers. These responses were organised into 290 and 189 codes respectively. Initially, the first author generated 19 sub-themes. After discussion, some were merged and 13 were agreed upon across both stages of analysis.

Given the sub-themes were diverse in content, they were grouped according to three overarching themes for both question 13 and 14. The main themes included: *Ongoing*

Learning, Teacher Personal Attributes and School System. Tables 14 and 15 show how the

identified themes and sub-themes were grouped. The tables also display the frequency (and

proportion) of codes relating to each theme at the pre and post stages. Importantly, sub-

themes were only included in the final results if they were represented by at least 3% of the

total amount of codes at both pre- and post-stages respectively (Patton, 2002). To calculate

the proportion of codes, the frequency count for a specific subtheme was divided by the total

codes and expressed as a percentage. For question 13, this meant excluding three percent of

coded responses for pre-stage data and nine percent at post-stage. For question 14, this meant

excluding three percent at pre-stage and eight percent at post-stage.

Table 14

All Themes and Subthemes Generated from Question 13 (Facilitators) and the Corresponding Definitions and Extracts and Frequency count.

Overarching Theme, Definitions and Proportion of themes at Pre- and Post- Stages	Subtheme and Definition	Extracts	Frequency (and proportion) of codes
Ongoing learning: Perceived facilitators associated with this theme relate to PST education such as teacher education and professional development. More specifically, the theme represents the skills and strategies learnt through teacher education and other such learning opportunities. Pre: 38% Post: 40%	*Inclusive Practices:* Differentiation, accounting for individual needs and making 'reasonable adjustments'. Also, specific strategies and practices (e.g. social-emotional learning, UDL, peer collaboration, etc.) as well as general references to inclusive practices.	- "Reasonable adjustments" - "Using assessment 'for' learning rather than 'of'" - "Drawing upon interests [of students]" - "Universal Design for Learning approach" - "Social Emotional Learning"	**Pre: 45 (14%)** **Post: 57 (27%)**
	Teacher education: Professional/personal development and teacher education for inclusion.	- "More education on the documents and laws available for support" - "My education" - "Learning inclusive pedagogies" - "Professional development days on inclusion for students" - "Teacher education on inclusion"	Pre: 38 (12%) Post: 21 (10%)
	Knowledge/Understanding: Information and awareness of inclusive policies and practice	- "Knowledge" - "Knowledge of policy" - "Having knowledge and understanding" - "Greater awareness"	**Pre: 27 (8%)** **Post: 9 (4%)**

Table 14

All Themes and Subthemes Generated from Question 13 (Facilitators) and the Corresponding Definitions and Extracts and Frequency count.

	Parents/Families: Collaborating and working with parents and families	- "Knowledge about disabilities" - "Effective communication between parents and staff" - "Strategies from the parents" - "Parents" - "Strong home-school connection" - "Support/behavioural plans made with students and family"	Pre: 24 (7%) Post: 15 (7%)
	Mentorship/Reflective Practice and Experience: mentors, feedback and reflective practice on teaching practices	- "Feedback" - "Mentors" - "Opportunities to implement in classroom with feedback" - "Constant reflection and communication journals with students" - "More experience working with these students"	**Pre-stage only: 21 (6%)**
Teacher Personal Attributes: Perceived facilitators within this theme relate to the teacher-related affective variables and rapport building skills.	***Attitudes/Views:*** Teachers attitudes and views towards inclusion and diversity. Includes being open to inclusive ideas, respecting and caring for students and having high expectations for all.	- "Open-mindedness" - "Treat everyone with respect, understanding and care" - "Attitude" - "A strong belief in inclusion"	Pre: 13 (4%) Post: 9 (4%)

Table 14

All Themes and Subthemes Generated from Question 13 (Facilitators) and the Corresponding Definitions and Extracts and Frequency count.

Pre: 15% Post: 10%	***Rapport/Relationships:*** Teacher's positive relationship building skills and communication skills	- "High expectations for every student (regardless of disability)" - "Inclusive language" - "Having the trust and relationships developed prior to teaching" - "My ability to advocate for my student" - "Relationships" - "Effective communication between staff and students"	**Pre-stage only: 10 (3%)**
School System: This theme represents features of the environment that are external to the teacher including aspects of the school such as support systems, resources, policies. Pre: 46% Post: 50%	***Resources:*** General references to tools, resources and facilities for inclusion	- "Lots of resources" - "Technology" - "School facilities" - "Classroom equipment" - "Resource availability that suits modified classrooms (specifically health and physical education classrooms)"	Pre: 37 (11%) Post: 30 (14%)
	Teacher Aides: Use of teacher's aides and assistants in the classroom	- "The use of teacher aides" - "Teacher aides"	**Pre: 35 (11%)** **Post: 13 (6%)**
	Support/Collaboration: General references to support and support for the teacher from stakeholders at schools.	- "Support from those in positions of power at the school (e.g. principles, team leaders, etc.)"	Pre: 31 (10%) Post: 23 (11%)

Table 14

All Themes and Subthemes Generated from Question 13 (Facilitators) and the Corresponding Definitions and Extracts and Frequency count.

		- "Seeking support (if needed) from other teachers"	
		- "Support"	
		- "Professional assistance"	
		- "Support from administration"	
	Climate/Policies: positive school/classroom environment or culture as well as inclusive values/policies	- "Creating a safe, friendly classroom environment"	Pre: 16 (5%)
		- "The inclusive culture of the school"	Post: 9 (4%)
		- "School values"	
		- "Positive and inclusive schooling community"	
		- "Overt classroom values"	
	Funding: financial support generally as well as levels and appropriateness of funding	- "Funding"	Pre: 10 (3%)
		- "Funding for facilities"	Post: 8 (4%)
		- "Adequate funds"	
		- "Financial support for physical aides"	
	Physical Space: *Layout, accessibility and set-up of classes*	- "Small classes"	**Pre-stage only: 9 (3%)**
		- "Accessibility"	
		- "Physical building aspects (ramps etc.)"	
		- "Classroom layouts"	
		- "Inclusive space"	

Facilitators of Inclusive Practice

At pre-stage, most sub-themes were related to the overarching theme of 'School System' (46%). 38% percent of sub-themes were associated with 'Ongoing Learning' and 15% were related to 'Teacher Personal Attributes'. Moreover, 13 sub-themes relating to perceived facilitators of inclusive education were generated across both time points. The most common sub-themes that were represented by at least 3% of codes at pre-stage were: 'Inclusive Practices' (n = 45), 'Teacher Education' (n = 38), 'Resources' (n = 37), 'Teacher Aides' (n = 35), 'Support/Collaboration' (n = 31), 'Knowledge/Understanding' (n = 27), 'Parents/Families' (n = 24), 'Mentorship/Reflective Practice' (n = 21), 'Climate/Policies' (n = 16), 'Attitudes/Views' (n = 13), 'Rapport/Relationships' (n =10), 'Funding' (n =10) and 'Physical Space' (n = 9). Notably, three of these sub-themes were uniquely generated at the pre-stage of the research. These included: 'Rapport/Relationships', Mentorship/Reflective Practice' and 'Physical Space'.

At post-stage, a similar proportion of main themes was found. That is, most sub-themes were related to the 'School System' (50%). Forty percent were organised under 'Ongoing Learning' and ten percent were related to 'Teacher Personal Attributes'. However, the proportion of codes associated with the sub-themes varied compared to pre-stage. The most common sub-themes at this stage of the study were: 'Inclusive Practices' (n = 57), 'Resources' (n = 30), 'Support/Collaboration' (n = 23), 'Teacher Education' (n = 21), 'Parents/Families' (n = 15), 'Teacher Aides' (n = 13), Attitudes/Views' (n = 9), 'Climate/Policies' (n = 9), 'Knowledge/Understanding' (n = 9) and 'Funding' (n = 8).

When comparing the findings from Pre to Post Stage, three key findings were discovered. Firstly, the proportion of codes relating to the sub-theme of 'Knowledge/Understanding' decreased from 8% (at pre-stage) to 4% (at post stage). Secondly, the proportion of codes relating to the subtheme of 'Teacher Aides' decreased from

11% (pre-stage) to 6% (post-stage). Thirdly, the proportion of codes relating to the sub-theme

of 'Inclusive Practices' increased from 14% (at pre-stage) to 27% (at post-stage).

Furthermore, the quality of the responses also varied. That is, at pre-stage, responses were

mostly general in focus with extracts such as: "differentiation" and "understanding the needs

of students". However, Post-Stage responses appeared to reflect more of the content taught

during the course, including references to policy as well as more specific inclusive practices.

For example: 'Making reasonable adjustments', 'Social-emotional-learning', 'Using

assessment for learning rather than of [learning]' etc. Refer to *Figures 6* and *7* to compare the

proportion of codes relating to the sub-themes at Pre- and Post-Stages respectively.
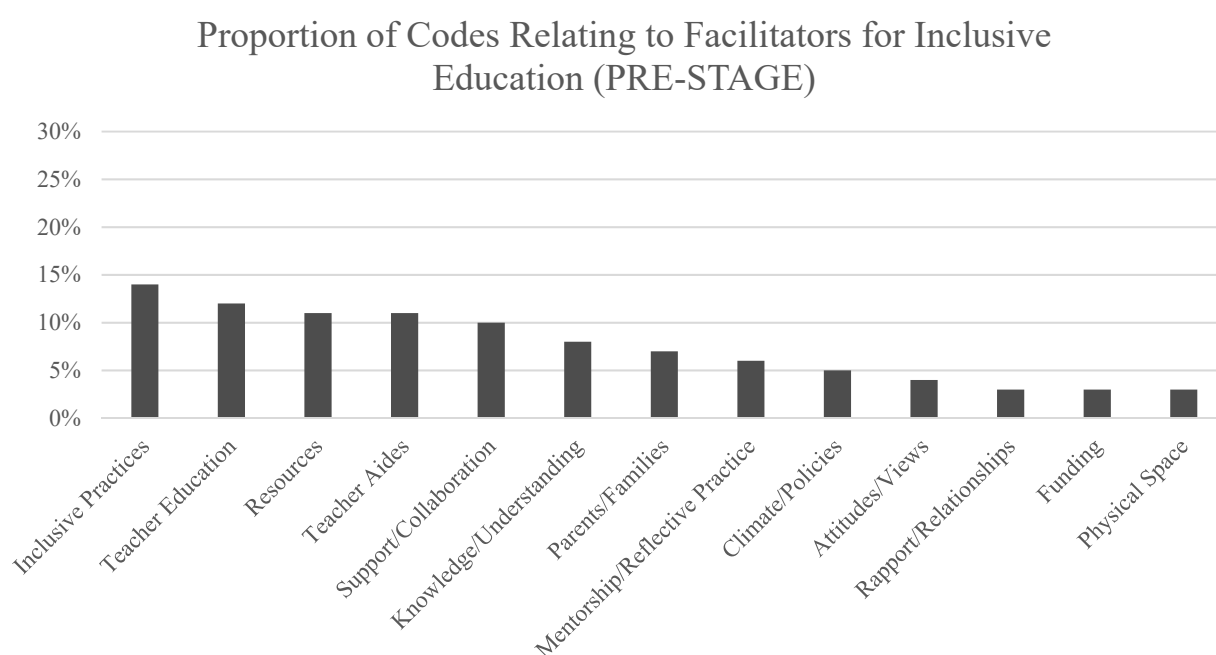
Figure 6. Pre-stage proportions of codes associated with facilitators for Inclusive Education
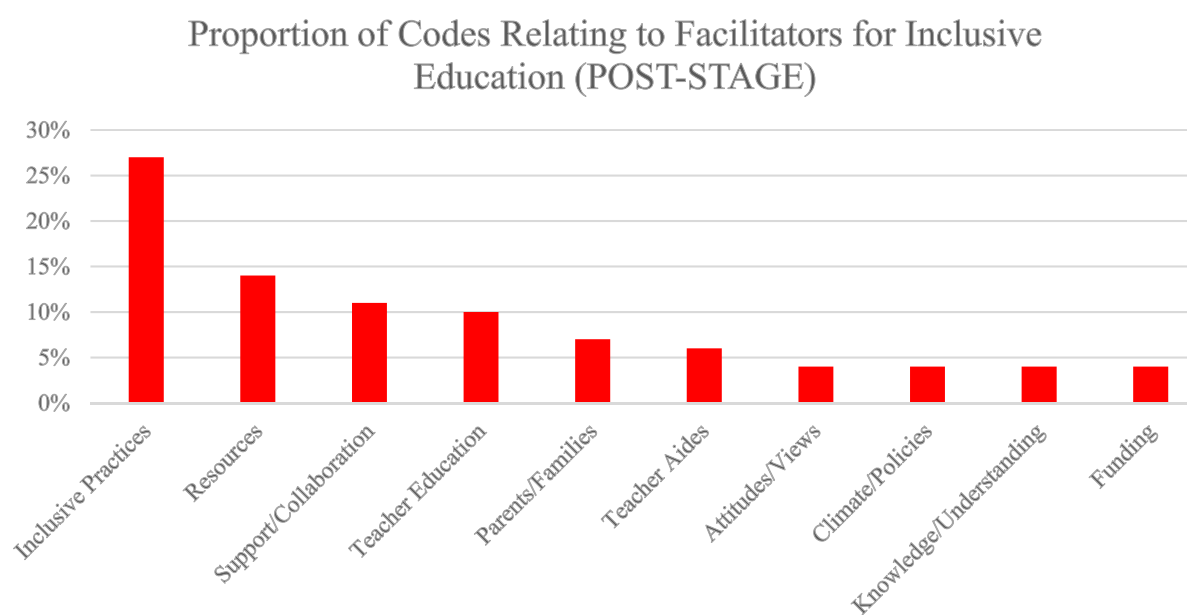
Figure 7. Post-Stage proportions of codes associated with facilitators for inclusive education

Table 15

All Themes and Subthemes Generated from Question 14 (Barriers) and the Corresponding Definitions and Extracts and Frequency count.

Overarching Theme and Definition	Subtheme and Definition	Extracts	Frequency (and proportion) of codes
Ongoing learning: Perceived barriers associated with this theme relate to PST education. More specifically, the theme represents features of teacher education and development that may be lacking or poor quality. Pre: 31%; Post: 27%	***Limited Knowledge/Understanding:*** Poor level of awareness with regard to inclusive policy and practices	- "Lack of understanding" - "Not having up-to-date knowledge" - "Lack of knowledge of strategies" - "Ignorance" - "Poor knowledge of policy"	**Pre: 45 (15%)** **Post: 20 (10%)**
	Practising Exclusion: Specific practices or ideas that contribute to the exclusion of students and are at odds with inclusive philosophies.	- "Labelling student, especially to other students" - "One-size-fits-all approach to learning" - "Having no adjustments" - "Grouping students based on ability" - "using resources that not all students will understand (e.g. students with poor literacy may struggle to read subtitles of a video)"	**Pre: 19 (6%)** **Post: 24 (12%)**
	Inexperience with Practice: Lack of opportunity and experience with diverse student groups and in inclusive classrooms.	- "Lack of experience" - "No contextual learning had" - "My own inexperience" - "No experience dealing with students with disabilities"	Pre-stage only: 17 (6%)

Table 15

All Themes and Subthemes Generated from Question 14 (Barriers) and the Corresponding Definitions and Extracts and Frequency count.

	Poor Quality Teacher Education: poor quality teacher education, PD and ongoing learning	- "Experience" - "Lack of professional development opportunities" - "Lack of continual education" - "Poor teacher training" - "Teacher education experience (older teachers, not always)" - "Lack of education"	Pre: 11 (4%) Post: 12 (6%)
Teacher Personal Attributes: Perceived barriers within this theme relate to a lack of teacher affective variables and perceived lack of preparedness for inclusion. Pre: 15%; Post: 9%	*Negative Attitudes and Views:* Teacher's and other stakeholders (negative) attitudes and views towards inclusion and diversity. Also includes stigmas, stereotypes, misconceptions and preconceptions or being close-minded.	- "A close-minded attitude to the way you'll approach each classroom you teach" - "Attitude" - "Stereotype" - "Non-inclusive personal beliefs" - "Other colleagues labelling/gossiping"	Pre: 29 (10%) Post: 15 (7%)
	Low Confidence/Efficacy: Perceived lack of preparedness for inclusive education and the level of confidence in one's ability	- "Poor confidence" - "Self-doubt in my abilities" - "Self-doubt" - "Ability" - "Confidence"	Pre-stage only: 12 (4%)

Table 15

All Themes and Subthemes Generated from Question 14 (Barriers) and the Corresponding Definitions and Extracts and Frequency count.

School System: This theme represents school and student features that may hinder the realization of inclusive education. Pre: 54%; Post: 64%	***Limited Resources:*** Lack of resources, materials, equipment, technology and facilities.	- "Resources" - "Lack of facilities" - "Not enough resources" - "Lack of access to equipment and materials" - "Inability to provide technology"	Pre: 40 (13%) Post: 26 (13%)
	Lack of Support: Lack of support from other teachers, principals, admin and other stakeholders	- "Lack of assistance" - "Support" - "Lack of support from the school" - "non-supportive management" - "lack of aides"	Pre: 30 (10%) Post: 25 (12%)
	Poor School/Class Design: Class design, physical layout, number of students, issues of accessibility and general references to time	- "Lack of time" - "Physical environment if not changed" - "Very large classes" - "Accessibility" - "Physical layout of classroom"	Pre: 28 (9%) Post: 18 (9%)
	Student Issues: Student features (e.g. abilities, attitudes, severity of disability, varying abilities etc.) that teachers perceive to impact inclusion	- "Disruptions from students" - "Students without disabilities" - "Abilities of diverse students" - "Lack of student engagement"	Pre: 20 (7%) Post: 7 (3%)

Table 15

All Themes and Subthemes Generated from Question 14 (Barriers) and the Corresponding Definitions and Extracts and Frequency count.

	- "Severe disabilities"	
Poor Funding: Lack of funding, financial resources and budget in general	- "Lack of funding"	Pre: 18 (6%)
	- "Funding"	Post: 17 (8%)
	- "Poor funding"	
	- "School funding"	
	- "Lack of financial resources"	
Unsupportive Parents/Families: Lack of support from families, the levels of family/parent participation, managing parent expectations and the relationship between parents and teachers	- "Lack of support from families"	Pre: 11 (4%)
	- "Unsupportive parents (those in denial of their child's disability)"	Post: 12 (6%)
	- "Negative parent teacher relationships"	
	- "Parent perception"	
	- "Lack of parental participation"	
School/Class Climate: Poor school/classroom culture, community, environment or climate for inclusion and philosophes and policies	- "Not creating a sense of belonging"	Pre: 10 (3%)
	- "Poor environment for children (mental and physical safety)"	Post: 13 (6%)
	- "Attitudes and culture of the organisation"	
	- "School's philosophy/views"	
	- "Negative classroom culture"	

'

Barriers to Inclusive Education

At pre-stage, most 'Barrier' sub-themes were related to the overarching theme of 'School System' (54%). While the remaining sub-themes were related to 'Ongoing Learning' (31%) and 'Teacher Personal Attributes' (15%). Overall, 13 sub-themes relating to perceived barriers to inclusive education were generated across both time points. At the pre-stage, the most common themes were: 'Limited Knowledge/Understanding' ($n =45$), 'Limited Resources' ($n = 40$), 'Lack of Support' ($n = 30$), 'Negative Attitudes and Views' ($n =29$), 'Poor School/Class Design' ($n =28$), 'Student Issues' ($n = 20$), 'Practising Exclusion' ($n = 19$), 'Poor Funding' ($n =18$), 'Inexperience with Practice' ($n =17$), 'Low Confidence/Efficacy' ($n = 12$), 'Unsupportive Parents/Families' ($n =11$), 'Poor Quality Teacher Education' ($n =11$) and 'School/Class Climate' ($n =10$). Notably, two of these sub-themes were uniquely generated at the pre-stage of the research. These included: 'Inexperience with Practice' and 'Low Confidence/Efficacy'.

At post-stage, the most common main theme was 'School System' (64%). The remaining sub-themes were categorised as 'Ongoing Learning' (27%) and 'Teacher Personal Attributes' (9%). The most common sub-themes at this stage of the study were: 'Limited Resources' ($n = 26$), 'Practising Exclusion' ($n = 24$), 'Lack of Support' ($n = 25$), 'Limited Knowledge/Understanding' ($n = 20$), 'Poor School/Class Design' ($n =18$), 'Poor Funding' ($n =17$), 'Negative Attitudes and Views' ($n =15$), 'School/Class Climate' ($n =13$), 'Unsupportive Parents/Families' ($n =12$), 'Poor Quality Teacher Education' ($n =12$) and 'Student Issues' ($n = 7$).

In comparing the pre/post-stage data, four key findings were discovered. Firstly, the proportion of codes relating to the sub-theme of 'Student Issues' decreased from pre (7%) to post-stage (3%). Secondly, the proportion of codes relating to the subtheme of 'Knowledge/Understanding' also decreased from 15% at pre-stage to 10% at post-stage.

Thirdly, the proportion of codes relating to the subtheme of 'School/Class Climate' increased between pre-stage (3%) and post-stage (6%). Lastly, the sub-theme of 'Practising Exclusion' increased between pre-stage (6%) and post-stage (12%). The nature of the extracts relating to this subtheme also varied. More specifically, at post stage there were more specific references to ideas taught within the Subject. Such extracts included: "one-size-fits-all approach" and "grouping students based on ability". Refer to *Figures 8 and 9 to* compare the proportion of codes relating to the subthemes for barriers at pre- and post-stages respectively.
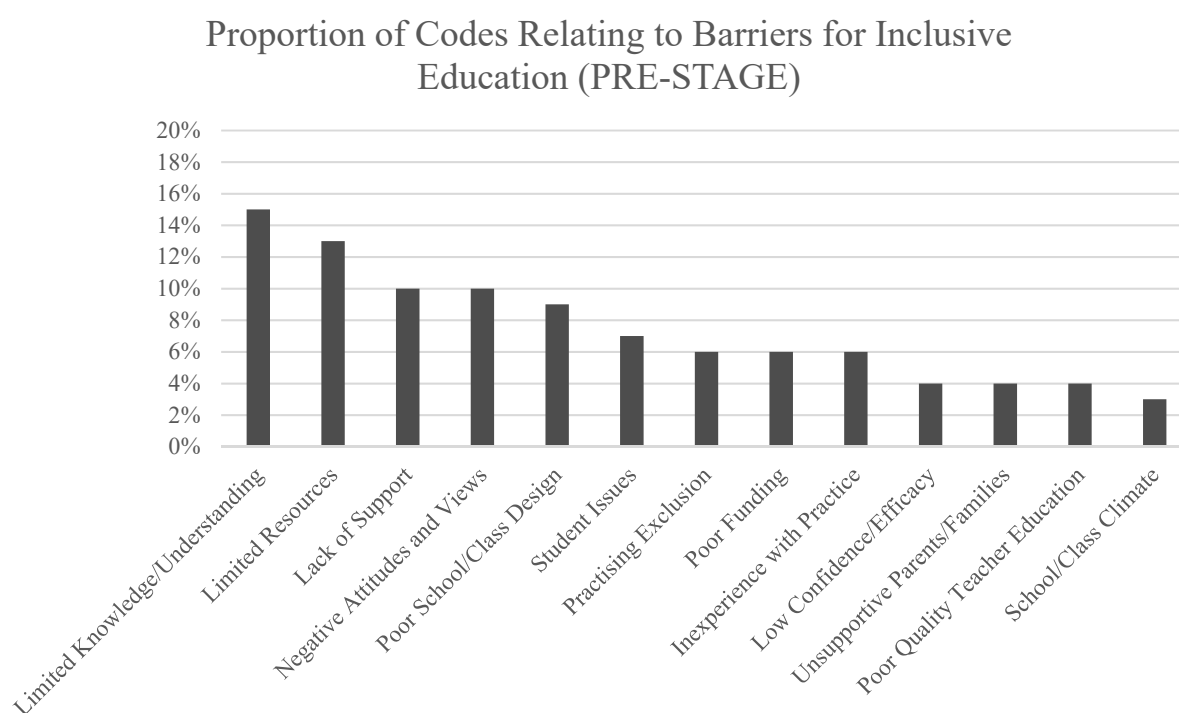
Figure 8. Pre-Stage proportions of codes associated with Barriers for Inclusive Education
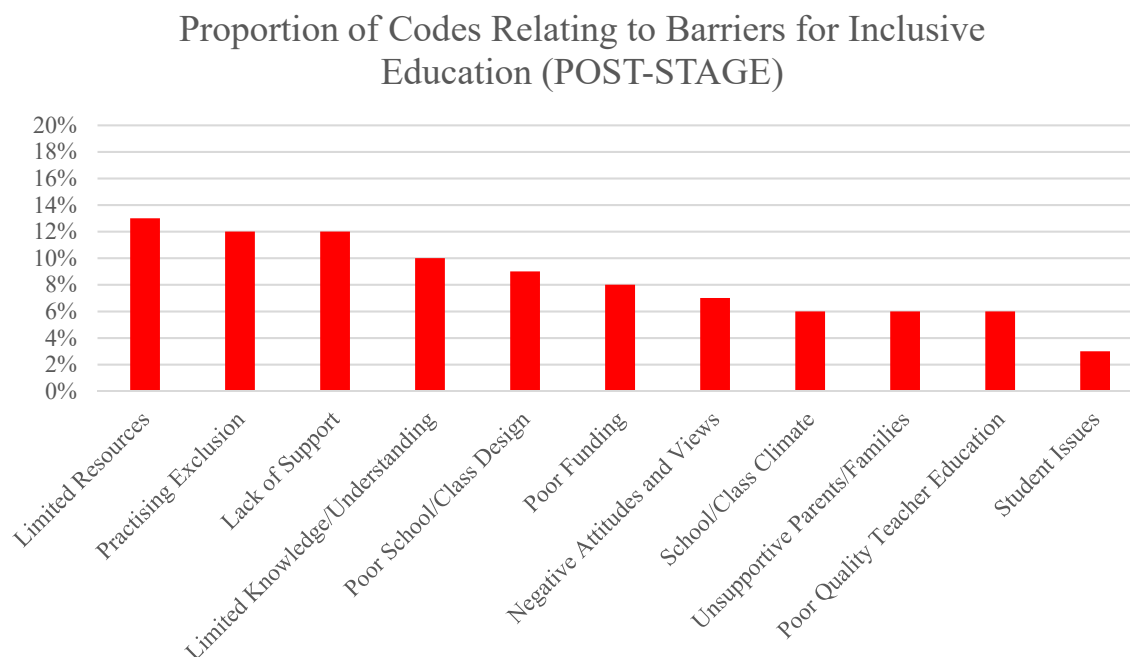
Figure 9. Post-Stage proportions of codes associated with Barriers for Inclusive Education

Study 2: 'Understanding Inclusive Practices'

The purpose of Study 2 was to examine the relationship between PST affective variables (attitudes, self-efficacy, concerns,) and intentions with regard to inclusive teaching practice. To achieve this end, a combination of survey and observational data was utilised. This section will firstly present a summary of the four PSTs' characteristics and then research question 10 will be answered.

Pre-Service Teacher Participant Characteristics

Out of a possible 67 participants, 4 agreed to be observed in the classroom (see Table 16 for a summary of the four PSTs who took part in the observation phase). Each of the 4 PSTs were observed for three lessons, each lasting an hour. The IPCOS was used as a measure of inclusive practice. The IPCOS is a 35-item measure, with higher scores indicating a greater frequency of inclusive practices. A total of 12 hours of observations were conducted. An average total score of the IPCOS was calculated across the three sessions for each

participant. Therefore, a total average inclusive practices score was calculated to understand if significant correlations existed between the PST's variables and their inclusive teaching practices. Importantly, two trained observers were present at each observation sessions. Inter-observer reliability ranged from 78%-93% and was therefore deemed acceptable.

Table 16

Background Variables and Average IPCOS scores of Participants

Participant Code	Age Category	Gender	Campus	Average IPCOS score
P1	**Below 25**	**Female**	**B**	**69**
P2	**Above 40**	**Male**	**B**	**34**
P3	**Below 25**	**Female**	**A**	**70**
P4	**Below 25**	**Female**	**A**	**39**

Research Question 10:

Was there a significant relationship between PST's intentions, teaching efficacy, concerns, attitudes, and their observable inclusive practices after taking part in the Subject on inclusive education?

Given the small sample size of PST that were observed (n = 4), Spearman rho correlations were calculated to give a preliminary understanding of the relationships among the various constructs. The Spearman rho correlation coefficient (*rs*) signifies the strength of monotonic relationship between the paired data and is the non-parametric equivalent of a Pearson correlation.

When examining the key variables relating to inclusive practice, no significant relationship was documented between the total scale scores and inclusive practices scores. Despite not reaching statistical significance, the direction of the relationship between

intentions and practices was positive and almost significant (p =.051). Of the 120 correlation coefficients (*rs*) calculated, none of the relationships between the total scale scores were significant. However, 9 statically significant relationships between the various sub-scales or sub-scales and total scores were found.

Interestingly, a strong negative and significant association between the intentions sub-scale to alter 'curriculum' and total inclusive practices was observed (*rs* = -.99, *p* < .01). This suggests that as intention to alter the curriculum increases the level of inclusive practices decreases. Additionally, a strong negative and significant relationship between the concerns sub-scale relating to 'resources' and total intentions was observed (*rs* = -.98, *p* < .05). This finding suggest that as total intentions scores increased, PST levels of concerns relating to resources decreased. Also, a strong negative and significant relationship was found between concerns about 'workload' and total attitude scores was noted (*rs* = -.99, *p* < .01). This finding indicated that as total attitudes increase, concerns about 'workload' decrease.

In summary, the question as to whether there is a significant relationship between PST's intentions, teaching efficacy, concerns, attitudes, and their observable inclusive practices after taking part in the Subject, was not clearly substantiated. Importantly, the relationship between intentions to teach in inclusive classrooms and inclusive practices was not significant. However, the relationships between intention to 'alter curriculum' and total inclusive practices, concerns relating to 'resources' and total intentions, and concerns about 'workload' and total attitude scores, were all significantly and negatively related.

Table 17 provides a summary of the findings of the nonparametric correlations among teachers' efficacy for implementing inclusive practices, concerns regarding inclusive education, their attitudes toward inclusive education, intentions to be inclusive and teachers' inclusive practices in the classroom. The mean total scores as well as sub-scale scores were investigated.

Table 17

Spearman Rho Correlations Among Teachers' Self-Efficacy for Implementing Inclusive Practices, Concerns about Inclusive Practices, Attitudes Toward Inclusive Practices, intentions to be inclusive and their Inclusive Practices in the Classroom (post-stage)

	Total Practice	Total Attitude	Beliefs	Feelings	Total Intention	Curric-ulum	Consult	Total Concerns	Resources	Accep-tance	Academic Standards	Work-load	Total Efficacy	Instru-ction	Behaviour	Collabo-ration
Total Practice	-	-.42	.27	-.47	.72	**-.99****	-.92	-.59	-.76	-.32	.56	.48	.64	-.47	-.26	-.72
Total Attitude		-	.00	**.98***	-.35	.41	.73	-.46	.19	-.33	-.94	**-.99****	.28	.20	-.43	-.24
Beliefs			-	.16	-.48	-.37	-.08	-.47	.38	-.91	.32	.14	-.21	**-.97***	-.87	.09
Feelings				-	-.51	.44	.78	-.44	.35	-.44	-.88	**-.95***	.13	.05	-.53	-.11
Total Intention					-	-.64	-.76	-.22	**-.98***	.35	.25	.31	.76	.27	.37	-.74
Curriculum						-	.89	.61	.69	.41	-.58	-.49	-.59	.56	.35	**.68**
Consult							-	.21	.72	.00	-.78	-.76	-.42	.56	.35	.48
Total Concerns								-	.41	.77	.22	.37	-.74	.48	.79	.79
Resources									-	-.19	-.13	-.17	-.88	-.20	-.20	.87
Acceptance										-	.00	.20	-.14	.85	**.99****	.24
Academic Standards											-	**.98***	-.25	-.51	.10	.17
Workload												-	-.27	-.33	.30	.21

Table 17

Spearman Rho Correlations Among Teachers' Self-Efficacy for Implementing Inclusive Practices, Concerns about Inclusive Practices, Attitudes Toward Inclusive Practices, intentions to be inclusive and their Inclusive Practices in the Classroom (post-stage)

	Total Practice	Total Attitude	Beliefs	Feelings	Total Intention	Curriculum	Consult	Total Concerns	Resources	Acceptance	Academic Standards	Workload	Total Efficacy	Instruction	Behaviour	Collaboration
Total Efficacy													-	.12	-.16	**-.99****
Instruction														-	.78	.01
Behaviour															-	.25
Collaboration																-

Note: n = 5; * p < .05; ** p < .01

Chapter 6: Discussion

Introduction

Currently, teachers in Australia are required to ensure that all students in schools are fully included, no matter their learning needs. To work towards this aim, universities are now required to prepare teachers to work in inclusive classrooms. The present research focused on one university's journey in preparing PSTs for inclusion.

The current research project was born out of the recognition that teacher education research in Australia is often disconnected from the realities of classroom practice and is not rooted in evidence-based theory (Murray et al., 2008; Sleeter, 2014). This issue was emphasised in a recent Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (Disability Royal Commission, 2019). More specifically, workforce capability issues were cited as a prominent barrier that has the potential to impinge on student education. A key feature of the report was that the competence and skills of teachers were seen as critical in providing students with disability with quality and inclusive education. Furthermore, it was suggested that teachers require quality education to be able to implement inclusive education. Taken together, these suggestions imply that teacher educators should be justifying their processes and systematically evaluating how teachers are prepared for inclusive education.

This provided the rationale to use the Theory of Planned Behaviour (TPB) (Ajzen, 1991) in attempt to operationalise the preparedness of PSTs for inclusive education within the authentic tertiary inclusive teacher education Subject and to understand their practices. Intentions, within the TPB, are seen as a key indicator of a person's readiness for an actual behaviour and have the potential to predict actual behaviours (Armitage & Conner, 2001; Sheeran, 2002). In the case of PSTs inclusive practices, the theory was used as a guide to

understand if key variables such as attitudes, teaching efficacy and concerns, can influence intentions which, in turn, may lead to performance of inclusive practices.

Two studies were conducted in the current research. The first employed a quasi-experimental design featuring pre and post stage analysis. A total of 113 participants completed the questionnaire at pre-stage and 67 at post stage. Overall, the aims were to investigate the impact of the inclusive education university Subject and to understand if intentions can be predicted from the participant's attitudes, concerns and teaching efficacy. Pearson correlations, standard regressions and t-tests were used for the survey data analysis. Study 2 employed a non-parametric correlational design.

The aim of the second study was to examine the relationship between PST's affective variables (attitudes, self-efficacy, and concerns) and intentions with regard to inclusive teaching practice. Four teachers were observed for three hours each and rated using an observational measure (i.e. IPCOS) (Sharma & Sokal, 2016). The relationships between the observational data and post-stage survey data were investigated using Spearman Rho correlations.

There were a number of key findings that emerged from the data. Firstly, the TPB was deemed a useful framework to investigate PST intentions and associated variables. Second, participation in the Subject on inclusive education impacted positively on PST intentions to teach in inclusive classrooms. Third, there was a differential impact of the Subject depending on co-teaching or single-teacher arrangement. Fourth, the Subject content combined with co-teaching appeared to be a promising approach. Fifth, an intention to teach in inclusive classrooms was significantly predicted at both pre and post stages.

The key findings of the research are discussed below.

Utility of the Theory of Planned Behaviour.

The current research sought to affirm the expected relationships between the variables based on previous research, which used the TPB. Previously, some researchers have applied the TPB to understand and explain behaviours related to inclusive education (Ahmmed et al., 2014; Batsiou et al., 2008; Campbell, 2010; Kuyini & Desai, 2007; MacFarlane & Woolfson, 2013; Sharma & Jacobs, 2016; Yan & Sin, 2014). When applying the TPB in inclusive education contexts, intentions of in-service and PSTs to teach in inclusive classrooms can be predicted and more clearly understood (Ahsan, 2015).

The findings of the current study suggested that the TPB is an appropriate and useful framework with which to understand PST intentions to teach in inclusive classrooms. More specifically, investigation of the relationships between the key variables showed that the association between attitudes, concerns and teaching efficacy with intentions aligned with the TPB, especially after taking part in the Subject. While similar significant relationships were found at the pre-stage of the research, stronger correlations between attitudes, teaching efficacy, concerns and intentions were found at the post-stage. These results suggest that the PSTs' high level of intention to teach in inclusive classrooms was influenced by their positive attitudes and teaching efficacy. Additionally, low levels of concerns also appeared influential in contributing towards the formation of higher levels of intentions.

Yan and Sin (2014) examined the extent to which the TPB could be used to predict and explain the intentions and behaviour related to inclusive education for 841 primary and secondary school teachers in Hong Kong. A five-part survey focused on attitude towards inclusive education, subjective norm, confidence in their professional training (i.e. perceived behaviour control), intention and behaviours. The results indicated that the TPB fitted the data well and indicated that attitude, social pressure, confidence in professional training significantly predicted intention. Thus, the TPB appeared to be a sound theoretical framework

to understand teachers' intention and behaviour towards inclusive practice. However, in this study, behaviour was not directly measured. Instead, teachers self-reported their behaviours.

While the above study investigated social pressure, the current research used concerns as a proxy for subjective norm. Concerns were investigated because they had the potential to explain some of the variance in intention to perform inclusive behaviours. Furthermore, despite this construct not specifically fitting within the TPB, some previous researchers have conceptualised PSTs' concerns about teaching within inclusive classrooms as a representation of their subjective norms (Sharma et al., 2015). Irrespective of this, the findings of the current research align with Yan and Sin's (2014) research in that the TPB provided a useful framework to guide the study.

Most past researchers have not focused on the relationship between intentions and behaviour. In light of such limitations, the current research extends the understanding of the TPB within a PST education context. A key objective of this study was to examine if PSTs' attitudes, efficacy and concerns are really associated with intentions and the implementation of inclusive practices. By combining observational and questionnaire data, the research sought to address the gap in the literature regarding understanding how such variables relate to actual classroom practice.

The Relationship between Intentions and Classroom Practices

The results of the current study provided insight into the relationships between the key variables and inclusive practices. By investigating inclusive classroom practices in relation to intentions, attitudes, concerns and teaching efficacy, the current study aimed to determine whether the TPB variables were significantly related to observable inclusive practices after completing the inclusive education Subject.

Sharma and Sokal (2016) conducted a recent study investigating the TPB variables and actual inclusive practices by conducting classroom observations. The key purpose was to determine if a significant relationship existed between teachers' self-reported attitudes, concerns, efficacy and their actual classroom behaviour. Results indicated that teachers who were highly inclusive in their classroom practices were likely to have significantly lower degrees of concerns as well as positive attitudes to inclusion. A notable limitation of this study was that there was no attempt to explore the relationship between intentions and classroom practices.

What was clear, based on the in-class observation, was that all PSTs who took part in this phase of the current research implemented inclusive practices to varying degrees. However, the relationship between intentions to teach in inclusive classrooms and inclusive practices was not significant. Past researchers have found contrary results and suggest that intentions are linked with practices (Sheeran, 2002). The current research showed a positive relationship; however the results were not statistically significant.

The current research builds upon Sharma and Sokal's (2016) findings by including behavioural intentions in conjunction with the aforementioned variables. A strength of this research is that the relevant TPB variables were investigated within the context of PST education. Another strength is that the relationships between the variables were examined in relation to classroom observations.

By including intentions with classroom observations in the current research, a broader representation of the utility of the TPB was provided. It appears that using the TPB as a framework can help to better guide the investigation of PST preparedness for inclusion and provides support for the theoretical interrelationships between different variables. However, given time and resource restrictions, only a small number of PSTs were observed during their

practicum. Given the small sample size (n =4), the findings should be interpreted with caution.

Impact of the inclusive education Subject

Previously, a lack of university education for inclusion has been related to a lack of preparedness for inclusive education (Mayer et al., 2017; Symeonidou, 2017). A review of several studies has indicated that teacher education for inclusive education can positively influence PST variables related to the preparedness for inclusive education (Armstrong, Armstrong, & Spandagou, 2010; Forlin et al., 2014; Sharma & Sokal, 2016; Sokal & Sharma, 2017). The results of this current study support the notion that PST readiness for inclusion can be bolstered during teacher education. More specifically, their intentions increased, their concerns decreased and their teaching efficacy increased. Surprisingly, their attitudes did not significantly change when the overall impact was investigated. This does not detract from the apparent effectiveness of the Subject, but highlights that variables such as attitudes may be harder to influence, especially if they already hold positive views to inclusion (this aspect is discussed in greater detail later in the chapter). Furthermore, the impact of the Subject on the four key variables are discussed below.

Intentions

A notable finding of this research was that at post-stage, mean intentions scores were significantly higher. This provides tentative support that taking part in this inclusive education Subject positively bolstered PSTs' intentions to teach in inclusive classrooms. Similar results have been reported previously (Sharma & Nuttal, 2016; Sharma & Sokal, 2016).

Aiello and Sharma (2018) previously investigated the attitudes, efficacy and concerns in relation to intentions to teach in inclusive classrooms. The decision to investigate these constructs together was influenced by the recognition that attitudes alone cannot predict behaviour. These researchers discovered that participation in 750 hours of professional development positively influenced the participant's intentions to teach in inclusive classrooms. This research was focused on learning support teachers from Italy and therefore one needs to be careful generalizing these findings to PSTs or in-service teachers in Australia.

The inclusive education Subject at the centre of the current research appeared to be especially effective at influencing PST intentions to 'alter curriculum', as this sub-scale also significantly changed at post-stage. This finding suggests that the intention of PSTs to 'change the curriculum', 'socially include students with severe disabilities', 'change assessment tasks' and to 'consult with students to find ways to improve instruction', was improved. Recent results from a study by Sharma and Jacobs (2016) may help explain this finding. In their comparative study of in-service teachers from Australia and India, intentions of both groups to 'change the curriculum' was influenced by their self-efficacy. That is, educators with high levels of self-efficacy for inclusive teaching strategies were more likely to make changes in the way they teach in the classroom. Therefore, it is suggested that given PSTs in this study had high self-efficacy scores, this may have contributed to the significant change in this intention sub-scale. However, given the cross-sectional nature of the current study, one needs to be careful not to make causal inferences about the underlying mechanisms regarding how intentions and teaching efficacy are formed. Nonetheless, it is speculated, that through providing mastery experiences during the Subject, it is possible that PST efficacy was bolstered. This may have influenced their intentions. It is equally possible that through the development of high intentions, teaching efficacy was affected. It is

suggested that the relationship may be cyclical. Future research should seek to better understand the mechanisms by which these variables are developed and how they interact.

Attitudes

The current study indicated that overall attitudes were not significantly impacted. This was an unexpected finding given PST education is often an important context for the development of positive attitudes to inclusive education (Pearson, 2009; Varcoe & Boyle, 2014). While a slight increase in total mean attitude score was observed at post-stage, the change was not significant. Also, no significant difference was found between the sub-scale scores. Previous researchers have found contradictory results, suggesting that attitudes can be significantly and positively impacted through participation teacher education focusing on inclusion (Romero-Contreras, Garcia-Cedillo, Forlin, & Lomelí-Hernández, 2013; Savolainen et al., 2012; Sharma & Nuttal, 2016). While Sharma and Sokal (2015) also found that attitudes could be impacted during PST education, the results of their international comparative study revealed that attitudes were only influenced in an Australian sample of PSTs. However, the Canadian sample became significantly more apprehensive and had fewer positive attitudes following the completion of a course. It was suggested that the course features (e.g. a course rooted in a medical approach to disability) may have influenced these differential findings. The Canadian course largely relied on a medical approach to education. It covered information on disability-specific pedagogies and diagnostic categories to differentiate between the learning needs of students. This model is often related to exclusion as it assumed that there are inherent features of the student that are 'disabling'. In contrast, the Australian course was focused on a social model of disability and inclusion, which assumes that social and environment factors can be influenced to ensure that all students are included. Moreover, the social model of disability shifts responsibility to the inclusive

educator and sees inclusion as an educational and professional challenge. Based on these findings, the authors speculated that a medical approach to education was less effective at influencing attitudes, when compared to a course that sees inclusion as a social and educational challenge (Sharma & Sokal, 2015).

Davis, Florian and Ainscow (2004) previously suggested that traditional pedagogies, in the name of inclusion, have focused on students with special educational needs or disability categories. The current research was focused on inclusion for all students and was in line with a social approach to inclusion and disability. More specifically, disability specific pedagogies were not used to inform the design of the Subject. Instead, strategies and theory founded on inclusive philosophies were the focus. Moreover, the content taught did not focus on any one category of disability but on what works for all students. Providing this content was based on the assumption that there is no longer a need for 'specialist teachers' focused on disability, but for teachers and teacher educators to develop pedagogies inclusive of all learners (Davis et al., 2004)

Importantly PSTs enrolled in this Subject, were already quite positive with regard to inclusive education. Given the already moderately positive attitudes (on average) it can be expected that changing these attitudes would be difficult (Sharma & Sokal, 2015). It is speculated that if the levels of positive attitudes were lower at the beginning, a significant change may have been observed.

Teaching Efficacy

Bandura (1997) defined self-efficacy as a belief in one's capacity to bring about the actions needed to succeed in a specific situation. When interpreting Bandura's theory within the context of teaching, teaching efficacy is defined as a teacher's confidence in their own ability to affect student outcomes. This has been shown to be related to their attitudes and

teaching practices (Tschannen-Moran & Hoy, 2001, 2007). Gibson and Dembo (1984), conceptualised teaching efficacy as having two distinct elements: personal teacher efficacy and general teacher efficacy. The former relating to their own inclusive teaching ability and the later regarding the teaching profession's general ability to bring about positive student outcomes (Gibson & Dembo, 1984).

Self-evaluative constructs such as teaching efficacy can be developed through a number of different experiences or sources (Bandura, 1997). It can be achieved through physiological and positive or negative emotional states, vicariously through social persuasion and, most importantly and effectively, through experiences of mastery (Bandura, 1997). In other words, through a personal experience of success or failure in the implementation of behaviours. The results of the current research suggested that the Subject may have provided such experiences to the participants involved.

A statistically significant positive change between the total mean teaching efficacy scores before and after the inclusive education Subject was found in the current study. However, none of the sub-scales relating to 'instruction', 'behaviour' or 'collaboration' reached statistical significance. A number of researchers have reported that teaching efficacy can increase after undertaking a subject and this variable is thought to be maintained over time (Cologon, 2012; Malak, 2013). Sharma and Nuttal (2016) aimed to evaluate the effectiveness of an inclusive education course for PSTs in changing their attitudes, concerns and efficacy. 30 PSTs took part in a nine-week university course focussed on the benefits of inclusive education and the techniques needed to implement inclusive practices. A key finding was that efficacy increased significantly following the course. Similarly, Lancaster and Bain (2019) using a case-study design, investigated the influence of a course about inclusive education. It was noted that PSTs improved self-efficacy over time. The results indicated that self-efficacy can be increased following the completion of a course of study

about inclusion at undergraduate level and those with higher teaching efficacy maintain these levels over time. An important future line of research recommended by these authors was to explicitly connect sources of self-efficacy in PST education with those approaches shown to maximise student outcomes in classrooms. The current research focused extensively on evidence-based approaches and reflective practice. Therefore, tentative evidence is provided to suggest that the Subject may have been good at connecting measured teaching efficacy with specific efficacy-increasing features.

Concerns

Another major focus of this study was to determine what effect, if any, the Subject had on PSTs' concerns about inclusive education. Concerns are related to feelings of uncertainty that teachers may or may not experience in response to changing or new demands (Yan & Deng, 2019). Focusing on PST concerns is necessary because the variable may help to explain variance in intentions to implement inclusive practices and represents a significant barrier to inclusion (Sharma et al., 2006).

The current research found that mean concern scores were relatively low at pre and post stages. Having low degrees of concern at both stages was encouraging, given the recognition that that high levels of concern are identified as a significant barrier to inclusive education (Forlin, Kawai, & Higuchi, 2015). Notably, mean concern scores reduced significantly over time, despite the scores initially being relatively low. It appears, therefore, that variables such as concerns about inclusive education can be influenced through teacher education subjects. The total mean concern scores significantly changed in a negative direction from pre to post-stage. Also, 'Concerns about Acceptance" by others, was significant lower at post-stage. This provides some support that completion of the inclusion specific Subject can lead PSTs to have fewer concerns overall and in relation to student-

related concerns. Based on the work of previous researchers, it was expected that concerns would decline following the Subject. Sharma and Nuttal (2016) reported a decrease in concerns after PSTs took part in an inclusive education course. The course was deemed effective at reducing concerns about teaching experience, student experience and relationships with colleagues. It was suggested that this course was particularly effective at reducing concerns relating to PST beliefs about inclusive education. More specifically, concerns about the acceptance of students with disability by other students significantly declined (Sharma & Nuttal, 2016).

This finding aligned with the current research, which demonstrated that this sub-scale was the only factor that was significantly impacted. Therefore, the current Subject appeared to be particularly effective at addressing and ameliorating concerns relating to other students in the class. A reduction in these concerns could have developed as a result of PSTs acknowledging that inclusive education is beneficial to all students, not just those with a formal disability diagnosis (Ruijs & Peetsma, 2009). Similarly, Carew et al., (2019) found that when comparing PSTs and teacher educators, both groups had significantly lower concerns upon completion of an inclusive education subject in Kenya. More specifically, the inclusive education intervention was able to reduce both self-focused and other-focused concerns about educating children with disabilities within an inclusive classroom.

In contrast, some research has demonstrated that inclusion-specific course failed to significantly decrease PSTs' concerns about inclusive education. Forlin and Chambers (2011) reported that at post-training, the PSTs demonstrated a slight overall increase in concerns across all aspects, with their concerns related to being more stressed when including students with disabilities showing the largest increase. While these findings contradict the current study's findings, they highlighted the importance of explicitly addressing concerns and how they may not be effectively impacted if they are not explicitly addressed. Sharma et al.,

(2008) suggest that concerns should be explicitly addressed as much as possible within the initial teacher education programs. The current study found that, overall; concerns decreased as were concerns relating to the acceptance of students with disabilities by their student-peers. However, given the lack of significant change in the other sub-scales, it is unclear if this particular course effectively targeted concerns relating to external 'resources', 'academic standards' and 'workload'. It is suggested that, given that the Subject explicitly taught PSTs about the research base for inclusion and the benefits of this modality, overall concerns were influenced.

Despite not being explicitly addressed in the current research, previous research has suggested that as teacher concerns about inclusion decrease, their overall attitudes increase (Changpinit et al., 2007; Sharma, 2001; Sharma, Ee, & Desai, 2003). This suggests that addressing concerns may be a route to influencing teacher attitudes. Given attitudes are considered a pre-requisite for inclusive practices, yet cannot be directly manipulated, targeting concerns through teacher education appears to be necessary. This provides the rationale for future researchers to adopt a systematic approach to understanding PST concerns in relation to attitudes and intentions.

Background variables

One purpose of the current research was to ascertain whether the attitudes, efficacy, concerns and intentions of PSTs were significantly related to their background variables such as: gender; age; highest education qualification, grade levels they will teach in the future, direct experience with students with disability, relationship with students with disability, contact time with students with disability , previous success teaching diverse student populations, confidence teaching diverse student populations, level of education for inclusive education, disability status, and legislation and policy knowledge. Overall, no significant

relationships between the background variables and the key constructs of attitudes, efficacy and intentions were found at both stages of data collection.

Previously, a number of researchers have investigated the influence of background variables on attitudes. In contrast to the current research, a key background variable that has previously been found to be beneficial in improving attitudes is personal interactions with people with disability (Carroll et al., 2003). Furthermore, it appears the same is true of perceptions of self-efficacy. Background variables that have been shown to be related to self-efficacy include: interactions with people with disabilities, confidence levels, prior teaching experience, level of education for working with students with disability, the quality and nature of teacher preparation program and the levels of knowledge about inclusion law and policy (Loreman et al., 2013). Additionally, concerns have previously been shown to be related to degree of teacher confidence, level of teacher education and previous positive experiences (Round et al., 2016).

The lack of significant relationships between the background and dependent variables could be attributed to the small sample size in the project. A small sample size may not have allowed for enough variability in the data in terms of background variables and thus no significant differences were noted. Given other researchers have shown that some background variables may influence the TPB variables (e.g. direct contact with a person with a disability, level of knowledge about local policies and legislation), the results of the current study do not provide conclusive evidence to show that background variables have significant impact on factors such as attitudes, efficacy, concerns and intentions. The background variables may exert an influence on behaviour (and all other dependent variables), albeit indirectly (Ajzen & Fishbein, 2005). This suggests that targeting TPB variables, as opposed to background variables, may be more worthwhile when designing and evaluating inclusive education subjects.

What aspects of the Subject could have influenced participants' 'preparedness' variables?

Co-teaching/Single Teacher

Traditionally universities have relied on a single academic to deliver the content during workshops or tutorials. The current research was based on a new model for inclusive teacher education which used both a single-teacher and co-teaching approach (Sharma, 2018). This approach was adopted because the current study took place within a broader project which aimed to design the new Subject for inclusive education. This involved co-designing and co-teaching with school educators about attitudes and knowledge relevant to inclusive education and connecting such features with practicum experience. The current study took place within this broader project but was specifically focused on understanding preparedness and the impact of the Subject.

A key aim of the current research was to understand if there was a differential impact relating to how the Subject was delivered. More specifically, given the inclusive education Subject used different delivery modes (i.e. co-teaching or single teaching) depending on the campus attended, it was necessary to split the data file according to the 'campus' variable. In contrast to the overall change findings (discussed above), after splitting the data file according to campus, important results were discovered. At Campus A (co-teaching mode), all total scale scores were found to significantly change from pre- to post stage, including attitudes. In contrast, the results from Campus B (single-teacher mode) showed similar improvements in mean total scores when compared to Campus A but these changes were not statistically significant. Therefore, the results of this comparison suggest that co-teaching at Campus A may have been more effective at influencing the variables related to PST preparedness. This was inferred given all other aspects of the Subject remained consistent (i.e. course content, workshop slides, assignments etc.)

Partnerships that incorporate the community, school, and university are becoming increasingly significant in teacher education programs (Darling-Hammond, 2012). The importance of such partnerships is stipulated in AITSL standards for teacher education (AITSL, 2011). Thus, providers of teacher education programs should establish 'enduring school partnerships', to deliver their programs, particularly the professional experience component.

Moreover, little research on co-teaching in an inclusive teacher education context has been conducted. However, it appears that there is an emerging evidence base demonstrating its effectiveness. Previous research has suggested that using co-teaching in teacher preparation programs represents a promising feature that can serve to bolster collaboration skills (Bacharach, Heck, & Dahlberg, 2010). Furthermore, it allows educators to plan and deliver instruction in a flexible way based on the students' needs and focus of the instruction (Cook & Friend, 2010). It is through this teaching practice that teachers address the individualised education program goals and objectives of students with disabilities while at the same time meeting the learning needs of other students in the class (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010).

In the current study, co-teaching involved the shared practice by two educators working together with the PSTs. Each workshop at Campus A was co-facilitated by a university academic and an in-service teacher. Importantly, some of the in-service teachers were also working at the school where the PSTs were placed for their practicum. This was to facilitate continuity of support between university education and school placements. Furthermore, often one of the teachers adopted the lead teacher role to manage the workshops. However, both teachers were expected to share the instruction and have an equal voice and presence. It is speculated that in using this teaching strategy within teacher education, PSTs were able to see effective co-teaching being modelled. This may have

provided PSTs at Campus A with the vicarious mastery experiences needed to influence

preparedness and may explain the differential findings between campuses.

Subject Content

Internationally, teacher education researchers have suggested a number of topics that

should be the focus of such subjects. Previous research conducted by Sharma (2012)

specified a number of features of a PST subject that was deemed sufficient to enhance

willingness to teach inclusively. It was suggested that the 20 hour course was effective at

reducing PST concerns and bolstering positive attitudes towards inclusion of people with

disability. A key feature of this study was that the specific features of the course were clearly

stated. More specifically, content taught related to 'What is inclusion?'; 'Why inclusive

education?'; and 'How to implement inclusive education'. Furthermore, Forlin (2010a)

argues that teacher education courses that do not provide PSTs with authentic school

classroom experiences are insufficient when preparing them for the implementation of

inclusive education.

In relation to the current study, the expected workload for PSTs enrolled in the Subject

was a minimum of 144 hours per semester. This comprised of 2 contact hours per week (10

weeks in total) including workshops and online activities. Independent study and reading

made up the remaining number of hours per week. The coursework component was followed

by three weeks of practicum experience at schools. With regard to the specific content, the

current study included similar features in line with what previous researchers have suggested.

More specifically, in the current study, features relating to 'What is inclusion?' and 'Why

inclusive education?' were prominent. Moreover, the current research focused extensively on

evidence-based approaches (e.g. Positive Behaviour Support, Universal Design for Learning,

Social-Emotional Learning) and reflective practice. Therefore, tentative evidence is provided

suggesting that the Subject was effective at demonstrating 'how' to implement inclusion and connecting measured teaching efficacy with specific efficacy-increasing features.

Furthermore, a key feature of this Subject was that it was not focused on disability or diagnostic labels. The rationale for this decision was that information and knowledge about the categories of various disabilities does not inform teachers about how to teach a child who has a specific label. Diagnostic labels are important in a medical context but may not be useful when teaching in inclusive classrooms with diverse student needs. Labels of a learner only informs the teacher what a learner cannot do. They do not inform teachers about how to educate two learners with the same label. If inclusion is to be a priority, it is more important to understand the motivations, needs and wants of a student than what a medical diagnosis affords them. Teachers often see labels as a demarcation of what 'type' of student falls within their professional responsibility. The task of modern teacher educators should be to help teachers gain an understanding of a individual student's needs from a strengths-based perspective. A teacher who uses a strength based philosophy to teach a student always looks for what a student can do and uses this information to design and implement personalised programs within an inclusive classroom. The content of the Subject that was offered integrated this strengths based philosophy throughout the current program.

While the content and focus of the Subject was based on previous research, the current research extends knowledge in how to deliver such content. The findings suggest that when this type of content is taught to PSTs using a co-teaching approach, variables associated with preparedness are likely to be bolstered. It is encouraging that when the Subject was co-taught by academics and in-service teachers, a differential impact was observed.

Collaborating with teachers who have a realistic understanding of how to implement theory and content learnt in the course appears to be an important feature.

Additionally, the current research sought to investigate the perceptions of PSTs to provide further support for the effectiveness of the Subject and to triangulate the quantitative findings. Importantly, reforms in teacher education relating to inclusion have often been implemented without consultation or input from general educators (Snyder, 1999). Similarly, PSTs have historically not had a say in the type of content and learning experiences they receive during teacher preparation subjects and courses. Therefore, PSTs' in the current research were asked to complete two questions regarding their perceptions of facilitators and barriers for inclusion.

An example of research that investigated PST views regarding facilitators and barriers to inclusion was conducted by Sharma, Loreman, and Simi (2017). This paper reported the perceived barriers and facilitators of disability-inclusive education, and outcomes of an inclusive education system in the Solomon Islands. Data was gathered from a variety of stakeholders including parents, policymakers and, most notably, teachers. The results revealed that stakeholders identified attitudinal, policy and geo-graphical barriers. Furthermore, awareness programs, collaboration between stakeholders, infrastructure and resources, teacher education and fostering positive attitudes, differentiating instruction and family support were identified as key facilitators of inclusive education.

The current study investigated the reported facilitators and barriers, at pre and post stages. Therefore a strength of this research, that extends on previous research, is that PST opinions were sought and that gathered at pre and post stages respectively. By using this approach, it was possible to understand aspects of PST perceptions that may have changed over time.

Despite knowledge (background variable) not significantly influencing the key variables, capturing their views over time, provided tentative support to suggest that the PSTs had taken on content from the Subject and increased their knowledge. With regard to

facilitators, responses at pre-stage were mostly general in focus with extracts such as: "differentiation" and "understanding the needs of students". However, post-stage responses appeared to reflect more of the content taught during the course, including references to policy as well as more specific inclusive practices; for example: 'Making reasonable adjustments', 'Social-emotional-learning', 'Using assessment for learning rather than of [learning]'. In relation to barriers, at post stage there were more specific references to ideas taught within the Subject. Such extracts included: "one-size-fits-all approach" and "grouping students based on ability". Overall, these findings add credibility to the notion that the inclusive education Subject was influential in helping PSTs understand barriers and facilitators of inclusive education. Given the limited research based focused on capturing the PSTs perspectives, conducting more detailed qualitative analyses over time appears to be an innovative approach. This methodology could inform the design and subject features of a particular course or subject and allow teacher educators to target preparation based on the specific recommendations of the PSTs.

Predicting Intentions to Teach in Inclusive Classrooms

Predicting intentions can be a proxy for assessing a teacher's preparedness for inclusion. Having outlined the usefulness of the TPB framework and the impact of the Subject, the present study also attempted to predict PST intentions at both pre and post stages. The findings suggested that intentions to teach in inclusive classrooms were significantly predicted at pre and post stages respectively.

Previous research has also demonstrated that intentions can be influenced by attitudes (Sharma & Jacobs, 2016). Thus, the current findings suggested that if PSTs are to have positive intentions to teach in inclusive classrooms, attitudes are a critical factor to understand during teacher education.

Interestingly when comparing the pre-stage and post-stage predictors of intentions, key differences were noted. At pre-stage, attitudes and concerns were significant predictors of intentions. Previous researchers have shown that PSTs with greater levels of concern have lower intentions to teach in inclusive classrooms (Ahsan et al., 2012; Forlin et al., 2009; Miesera, DeVries, Jungjohann, & Gebhardt, 2019; Sharma & Sokal, 2016). Moreover, concerns have also been shown to significantly predict PST intentions to teach in inclusive classrooms (Sharma et al., 2015).

These research initiatives, coupled with the current study, further support the notion that concerns are an influential factor for predicting PST intentions. It is speculated that concerns may have been found to be a significant factor at pre-stage only because the PSTs are yet to understand the realities of the classroom and how they can implement effective inclusive practices. This finding suggests that in a PST education context, when beginning a subject for inclusive education, concerns may be necessary to address throughout the subject.

At post-stage, the overall model explained more variability in intention scores. Moreover, at this stage, in addition to attitudes, teaching efficacy emerged as a significant predictor variable for intentions. Previous researchers have reported that there can be a significant positive relationship between a PST's perceived self-efficacy and their intentions to teach in inclusive classrooms (Ahmmed et al., 2014; MacFarlane & Woolfson, 2013). In addition, teaching efficacy has also been shown to be a significant predictor of the inclusive intentions of PSTs (Sharma & Jacobs, 2016). Therefore, it is suggested that teaching efficacy plays a key role in shaping behavioural intentions to teach in inclusive classrooms, especially after participating in the inclusive education Subject.

Unlike at pre-stage, it is seems plausible that after building skills and knowledge related to inclusion, PSTs may have a more realistic understanding of how they can implement inclusion and what that means in practice. Teaching efficacy can align with actual

capacity when the sources of self-efficacy are matched with the type of preparation they are experiencing (Lancaster & Bain, 2019). In other words, the source of PST efficacy needs to be connected with approaches shown to maximise student outcomes in the classroom. It is possible that through taking part in such a Subject, teaching efficacy connected to specific practices was bolstered, and therefore represents a significant predictor at post-stage only.

While it is encouraging that intentions could be predicted from other variables (i.e. attitudes, concerns and teaching efficacy), it is interesting that the relationship with real life practices was not significant. Two key ideas are suggested that may have contributed to this unexpected finding: the time at which intentions data was collected and the placement school context.

In the current study, survey data related to intentions was gathered both prior to participants completing the Subject and after the Subject. This took place approximately one month before completing the practicum component of the Subject. Thus, it is possible that measuring intentions separately from practice may have contributed to the lack of significance between intentions and actual practice. As time passes, it is possible that confounding variables may have influenced the intentions score (Ajzen, 2011). Previous research has suggested that an individual's intentions change over time, which subsequently may influence the intention-behaviour relationship (Conner, Sheeran, Norman, & Armitage, 2000). This suggests that future research should attempt to measure PST intentions as close as possible to behaviours.

In addition, the school context may influence PST performance of inclusive behaviours. This suggestion was informed by the PSTs' qualitative data regarding their perceptions of facilitators and barriers for inclusion. The results indicated that 'school-system' related factors were the most common theme relating to barriers and facilitators of inclusion. This implies that when thinking about teaching in inclusive classrooms, PSTs

perceive aspects of the school environment as having the potential to influence the enactment of inclusive practices. The specific features of this theme included references to: 'school climate', 'support', 'collaboration' and 'mentorship'. Previously, researchers have identified features such as the school climate and quality of support as key factors when considering what may influence the enactment of inclusive practices in schools (Collie, Shapka, & Perry, 2012; Sharma & Desai, 2008). Thus, the current findings suggest that these variables, if accounted for, may serve to better align intentions with actual classroom practices.

Summary

The current research has made a significant contribution to understanding both what it means to be prepared for inclusive education at a pre-service level as well as how to potentially impact variables related to teacher preparedness through the inclusive education Subject. A strength of this research was that it included survey, observational and a small amount of qualitative data from PSTs themselves. Furthermore, the research adds to the limited research base regarding the TPB within an inclusive teacher education context. The findings of the current study provide insight into how researchers and teacher educators can determine the readiness PSTs for inclusive education using the TPB, as well as how to assess the impact of a subject over time.

Based on the findings from the current project, four key conclusions emerged.

Firstly, the TPB provided a useful guiding framework to operationalise the preparedness of PSTs. Second, previous research has rarely focused on the relationship between intentions and actual behaviour. Despite the current findings suggesting the relationship to be positive, the findings were not significant. Third, the prediction of intentions at pre and post stage was dominated by attitudes but concerns and teaching

efficacy were also found to be significant predictors. Fourth, when attempting to design effective inclusive education subjects, the content appears to be vital in preparing PSTs.

In the past, practicum experiences were often considered separate to university education. PSTs would go to schools and it was assumed that inclusive practices would be a natural by-product of participating in the course. An innovative approach, highlighted by the current research, would be to provide high quality content and link it with practice. The findings of the current research suggest that a better way to design PST education subjects would be to bring in-service teachers into the university classroom and co-teach the content.

These findings have significant implications for policy makers, teacher educators and researchers, and therefore recommendations for these key stakeholders are outlined in the following chapter.

Chapter 7: Conclusions

The focus of the current research was on how 'preparedness' for inclusive education can be conceptualised as well as how teacher education institutions can provide learning opportunities to develop PST competencies. It is recognised that preparing future educators for inclusive education is not the sole responsibility of universities. Preparing PSTs to teach in inclusive classrooms relies on the coordination and collaboration of tertiary institutions with schools and the wider community. Therefore, the results of the current research have a number of implications for teacher educators, policy makers and researchers interested in aligning inclusive philosophies with the realities of the classroom.

This chapter outlines the key implications and recommendations relevant to teacher educators and policy makers. Thereafter, the implications and recommendations for future research initiatives are presented. Next, the limitations of the current research are discussed. Finally, the chapter provides an overall summary of the key conclusions and provides recommendations for a path forward when attempting to develop the skills and knowledge necessary to be prepared to teach in inclusive classrooms.

Implications and Recommendations for Teacher Educators

PST education is a critical component in the development of inclusive educators. However, research has shown that PSTs continue to report feeling underprepared to teach inclusively in school and classroom situations (Commonwealth Government of Australia, 2016). Furthermore, there is limited research investigating how teacher preparation courses are designed to help PSTs to become inclusive practitioners (Forlin, 2012b).

Therefore, the question remains: 'How can teacher educators ensure that PSTs are appropriately prepared to implement inclusive practices?' The results of the current research suggested that involvement in the newly designed inclusive education Subject could

influence the preparedness of the PSTs to teach in inclusive classrooms. Subsequently, three key recommendations for those concerned with designing and implementing inclusive education subjects for PSTs are offered. These relate to the content of the Subject, the need for PSTs to have ongoing monitoring and evaluation, and using a co-teaching approach to the content delivery.

Content

When designing teacher education opportunities for PSTs, the content offered in the program is critical. This content was informed by a newly reformed model of teacher education that focused on the knowledge, attitudes and practical skills of PSTs. These features, within the '3H' model, are labelled the 'heart', 'head' and 'hands' (Sharma, 2018). Overall, the results of the current study suggested that in order for PSTs to be more effective in inclusive classrooms, they need to have attitudes and commitment (i.e., heart) knowledge and theory (i.e., head), and opportunities to practice what they have learnt in inclusive classrooms (i.e., hands) (Sharma, 2018).

It is recommended that teacher educators need to design subjects with these content features in mind.

Heart

Heart relates to PST attitudes and commitment to inclusive philosophies. Two key features of the Subject content related to this feature. First, the Subject was founded on inclusive philosophies with a focus on what works for all students. Second, the Subject did not focus on disability-specific pedagogies.

The Subject was founded on inclusive philosophies related to positive attitudes towards diversity and inclusion. Importantly, attitudes are seen as a prerequisite for inclusive

practice. However, it is recognised that attitudes cannot be directly manipulated during teacher education. Therefore, a key finding from the current research is that concerns are a critical factor that may influence positive attitudes and lead to higher intentions. Thus, it appears necessary to ensure that teacher educators systematically examine PSTs' concerns and put in place strategies to address their concerns during a subject (Carew et al., 2019; Forlin & Chambers, 2011).

To achieve this end, future teacher educators could document the concerns of PSTs before beginning a subject. This would enable teacher educators to address the reported concerns throughout the subject. It is recommended that this be done during the first lecture through the use of interviews, self-report measures and/or focus groups. Next, PSTs and teacher educators could collaboratively determine strategies to address these concerns during subsequent workshops. This appears to be an innovative approach to building positive attitudes as well as tailoring the subject to the specific needs of the PSTs.

Furthermore, a key feature of this Subject was that it was not focused on disability or diagnostic labels. Given that the modern interpretation of inclusion is concerned with what works for all students, focusing on diagnostic categories or special educational practices was deemed unproductive. If inclusion is to be a priority, teacher educators should focus on providing PSTs with an understanding of the particular student's needs from a strengths-based perspective.

Head

PSTs require knowledge of theory and practice related to inclusion. This is related to the 'head' component of the '3H' model (Sharma, 2018). However, the question remains: 'What specific knowledge do PSTs require to teach effectively in inclusive classrooms?' The

results from the current research suggest that two main types of knowledge are important: knowledge of policy and legislation and knowledge of evidence-based strategies and theories.

First, the Subject included detailed information regarding inclusive policy and legislation. This was to ensure that the PSTs were aware of their legal obligations under the DDA (1992) and to highlight the national and international policy contexts relevant to inclusive education. Second, PSTs were provided with opportunities to learn about a number of evidence-based teaching strategies. The current Subject provided PSTs with opportunities to learn and practice evidence-based strategies in a teacher education context. The strategies included: Universal Design for Learning, Social-Emotional Learning and Positive Behaviour Support. By teaching these strategies, PSTs gained information about 'how' to implement inclusion. These strategies were taught using a number of different techniques, including: Role-play (with a focus on developing the essential skills of communication); Case-based teaching (drawing on real examples from the field); Peer assisted learning (drawing on our peers to answer group discussion questions and problem solve); Seminars (to review key content from the workshops).

Hands

Hands refers to the ability of PSTs to practice inclusion in real classroom situations (Sharma, 2018). PSTs need to spend considerable time in such settings to apply the theoretical skills learnt during teacher education subjects. Despite this recognition, the practical components of teacher education content are often neglected, with limited attempts made to connect coursework and field experiences (Grossman, Hammerness, & McDonald, 2009).

A key feature of the current research was that following the Subject content, three weeks of practicum experiences in school classrooms were provided. Given limited resources

and time, some stakeholders and potentially influential features were not accounted for during this phase of the research. Future teacher educators could attempt to understand the school climate, mentor teacher support and quality along with a more detailed account of the PSTs views and the school-student outcomes. By accounting for such features and stakeholders, the appropriateness and effectiveness of practicum experiences may be more clearly understood.

Ongoing Monitoring and Evaluation

The results of the current research suggested that tracking PST development can be framed within the TPB. Tracking progress over time is essential to ensure PST accountability and to provide insight into the effectiveness of such educational opportunities. The pre-post quasi-experimental design was an important feature of this research. This design did not allow concrete conclusions to be drawn but provided preliminary evidence to suggest that the variables associated with preparedness for inclusion can be tracked and influenced over time. It is recommended that attempts to evaluate the effectiveness of teacher education programs on PSTs should be undertaken. More specifically, the variables associated with preparedness can be framed within the TPB and could be measured before, during and after a given teacher education subject.

Lastly, while documenting background variables at the beginning of a subject can offer valuable information about PST cohorts, the influence of variables such as knowledge of policy and legislation and the level of experience, remains unclear. In the current study, none of the background variables were significantly related to the key 'preparedness' variables. This does not discount the overall impact of such variables, but instead suggests that they may indirectly impact PSTs. Therefore, it is recommended that when designing

subjects, time and resources could be better served by focusing on and targeting preparedness variables instead of background variables.

Co-teaching

Taken together, the abovementioned content could be incorporated into the design of inclusive education subjects. Nevertheless, a notable finding of the current research was that inclusive PST behaviours were not significantly related to inclusive intentions. This unexpected finding suggests that a gap between the theoretical aspects of inclusion and practice in the classroom persists. Despite this, the current research identified a feature of the Subject that may help to bridge this apparent gap. Given the differential impact of co-teaching compared with a single-teacher approach, it is recommended that future teacher educators attempt to implement a co-teaching arrangement. It is suggested that having subjects taught by in-service teachers together with university educators can lead to better outcomes for PSTs. When this is done, PSTs may develop a more realistic understanding of how to implement evidence-based practices in the classroom.

Implications and Recommendations for Policy Makers

In Australia, all students, including those with a disability, have a right to education, as specified in the DDA (1992) and the DSE (2005). In addition, parents have the right to choose if their child attends a mainstream or special school. This complicates the job of teachers who, in the past, have not been required to teach students with diverse needs. Today, such students are increasingly being educated in mainstream schools. This has led to regular teachers feeling unprepared to meet the needs of all learners. This issue has been emphasized in two key documents: the Productivity Commission Report (Productivity Commission, 2012), and the Royal Commission (Disability Royal Commission, 2019). In 2012, the

Productivity Commission reported that teachers are not prepared for inclusive classrooms and suggested that teacher professional development should be linked to performance appraisal. More specifically, measures should be in place to track the development of teachers over time to ensure the effectiveness of teacher education opportunities (Productivity Commission, 2012). Moreover, the recent Royal Commission (Disability Royal Commission, 2019) highlighted that generally teachers are not adequately prepared to teach all learners; especially those with a disability, within an inclusive framework. The Commission also emphasised teacher education quality as being vital in the preparation of teachers for inclusive classrooms. Thus, the contemporary policy context clearly articulates the need for better PST education for inclusion and for teachers to be 'classroom-ready'(TEMAG, 2014).

To achieve this; AITSL (2018) has outlined the standards and procedures to accredit PST education courses. Such standards specify the minimum period of practicum experience as being 80 days in undergraduate and 60 in graduate programs. In addition, the standards also state that teacher education providers offer professional support in schools, including supervision from current or experienced teachers. It is suggested that attempts should be made to connect such experiences with the knowledge and skills learnt during university programs. Nevertheless, the question remains: 'What is missing from the current policy context and standards to ensure that PSTs really are 'classroom-ready' for inclusion upon graduating from their teacher preparation course?'

What is clear from the current research is that teacher education institutions have the potential to influence variables relating to the preparation of PSTs for inclusion. These findings reinforce the focus of modern policy and suggest that teacher education institutions are an important avenue through which to target the 'theory to practice' gap. It appears that high quality teacher education opportunities which focus on contextual relevant factors, practical experiences and chances to collaborate with in-service teachers can be influential. In

light of the current research findings, two key recommendations for policy makers are offered. First, future policy initiatives should aim to focus on the implementation of inclusive practices. Second, there is a need to articulate features of practicum experience that lead to a better alignment between theory learnt, and practices implemented.

Currently, even if practicum opportunities are offered, these experiences are implemented in an *ad hoc* way without much specification. Thus, it is often unclear if theory is connected to practice. Unless it is made a policy direction, universities will continue to provide teacher education opportunities in an informal manner. Policy makers can therefore emphasise, that teacher education programs and subjects throughout Australia must demonstrate the effectiveness of their programs by showing how theory is connected with inclusive practices in the classroom. Adopting such policies may help teacher educators to shift their focus onto offering meaningful learning opportunities that provide practical assistance to PSTs.

While collaboration across schools and education systems is already deemed essential for inclusive education to succeed (AITSL, 2011; TEMAG, 2014) little policy direction is provided to articulate how such collaboration could be achieved. Previously, Little and Houston (2003) described how high quality-teaching strategies are developed. Implementing inclusive practices relies on their relevance to classroom needs, dependence on required support, collaboration of researchers and having multiple educators within schools (Little and Houston, 2003).

In this study, co-teaching the Subject was found to be an influential delivery method that may serve to better align university theory and practice. Thus, future policy initiatives could better articulate what it means for teacher education to be high-quality by specifying this approach.

Implications and Recommendations for Future Researchers

In light of these recommendations, the current research offers a number of important lines of enquiry and ideas for future researchers who are interested in inclusive education in classrooms. Five key recommendations are suggested. First, more research using the TPB in a teacher education context is required. Second, there is a need to conduct larger scale observation studies. Third, observational data can be used together with PST self-ratings of behaviour. Fourth, data should be gathered from multiple stakeholders (i.e. PSTs, mentor teachers, school students). Fifth, more qualitative research is required.

The findings of this current study suggest that the TPB is an appropriate and useful framework with which to understand PST preparedness to teach in an inclusive classroom. However, given the limited sample size, the variables related to preparedness need to be investigated further to affirm these relationships within authentic teacher education contexts and to better understand the variables that predict intentions. Therefore, more studies in a PST education context, guided by the TPB, appear necessary.

In addition, not many studies have been undertaken with a specific focus on investigating the intention-behaviour relationship in a PST context. This is perhaps in result of the high resources and time required to conduct such studies. Thus, future researchers could aim to recruit larger sample sizes. Additionally, given the recognition that intentions should be measured as close as possible to practices, future observation studies should gather observation data as close as possible to collecting the intentions data.

Classroom observation data (in conjunction with self-report measures) can be used to provide a more comprehensive understanding of the TPB. The IPCOS was a worthwhile measure to provide a snapshot of the frequency of inclusive classroom practices. Previous research has also indicated that this tool is useful (Sharma & Sokal, 2016). A strength of the measure is that a broad picture of inclusive practices can be determined from using it. More

specifically, the items relate to how inclusive teachers provide instructional support, collaborate with others, manage and organise the classroom and how they track the progress of their students. Thus, the IPCOS is one of very few tools that targets a broad view of inclusive classroom practice. Furthermore, when attempting to validate objective observation measures, future researchers could ask PSTs to self-rate their behaviours. Combining these two forms of data may help to provide a more comprehensive understanding of classroom practices and may also ease the demands of conducting multiple classroom observations

Distilling inclusive practice into a checklist does not account for the nuances and qualitative aspects of behaviour. Sometimes practices can superficially appear inclusive but in reality may not be implemented effectively. When operationalising an item from the IPCOS such as 'checking for understanding', it is difficult to determine if the check is being conducted in an inclusive way. Instead of briefly scanning the classroom and moving on quickly, inclusively checking for understanding involves scanning the whole classroom and spending time determining whether any students are still confused. Using multiple forms of data will allow future researchers to gain a more comprehensive understanding of PST readiness to teach in an inclusive classroom and whether the observed practices are being implemented effectively. Scores from different stakeholders using parallel forms of the same rating scale/tool will also allow the PST, mentor teacher, and university academics to target areas where the former scores poorly.

Furthermore, there is limited research on the PST 'voice' or perceptions through qualitative methods regarding the implementation of inclusive education over time. The PSTs investigated in the current study appeared to have more inclusive education knowledge and referred to more specific inclusive policies and strategies after taking part in the Subject, as indicated by the thematic analysis of qualitative questionnaire items. This helped to triangulate quantitative impact findings and provided more nuanced data regarding the

influence of the inclusive education Subject. It is recommended that future researchers would benefit from using the PST's voice together with other stakeholders such as mentor teachers and school students to capture a broader view of preparedness and influential subject features. The qualitative data from PSTs could be gathered throughout the duration of a subject. In other words, this data could be gathered both at the start of a course and at the end, just before the teacher goes on placement. This will enable researchers to supplement data relating to monitoring and evaluation, over time.

Limitations

When interpreting the above recommendations and conclusions, it is necessary to account for a number of limitations. These relate to inherent issues with self-report measures, the small sample of observed PSTs, and the psychometric properties of the Inclusive Practices Observation Schedule.

First, an inherent limitation of self-report measures is that participants may provide unrealistic or socially desirable responses. Thus, future research could include a formal measure of social-desirability to account for this potential influence. Nevertheless, it is recognised that social-desirability is often not influential when participants remain anonymous and therefore was not deemed an overly influential factor in the current study. Moreover, future research could include measures of implicit attitudes. Implicit attitudes can be defined as "introspectively unidentified (or inaccurately identified) traces of past experience that mediate favourable or unfavourable feeling, thought, or action toward a social object" (Greenwald & Banaji, 1995, p. 8). Implicit attitudes are thought to be less influenced by social desirability when compared to explicit attitudes (measured in the current study) (Perugini, 2005). Therefore, future research, could consider measuring implicit attitudes in conjunction with measures of explicit attitudes.

Second, only four participants were observed during the current research due to time and resource restrictions. Thus, it can be inferred that the external validity of the results is limited. Future researchers should attempt to have larger sample sizes. Furthermore, more innovative approaches to collecting classroom data can be utilised. For example, the classroom practices of PSTs could be documented with video recording technology. This appears to be an important future research method to be able to conduct more observations without having to employ additional observers. Also, as previously specified, gathering class data from the school-students, mentor teachers and other stakeholders in the school may serve to supplement and validate classroom observations.

Lastly, the observation tool (IPCOS) has had limited research to determine its reliability and validity. Importantly, more research is required to understand the psychometric properties of the measure. Therefore, future research should focus on establishing the reliability and validity of the measure. This suggestion was also put forward by the authors of the observation tool (Sharma & Sokal, 2016). Notably, attempts to standardise the use of the measure were accounted for in the current research. This included: training all observers to use the measure and calculating inter-rater reliability for all observation sessions.

Summary

The findings of this research project provided evidence to suggest that the TPB is a useful framework with which to investigate PST preparation for inclusion. Additionally, the findings suggest that the inclusive education Subject was influential in preparing PSTs for inclusive education.

Overall, the current project contributes to a limited research base focusing on how inclusive policies and ideals can be implemented in the classroom through better preparation of PSTs. Addressing the apparent 'research-practice gap' has thus far proved elusive.

Encouragingly, the current research contributes to both an understanding of the disconnect with practice and policy and how to go about implementing inclusive practices.

When designing inclusive education subjects, above all the content is vital. The current research suggested subject content that may be effective, including: a focus on education for all, inclusive policy and legislation, understanding the concerns of PSTs, evidence-based teaching strategies and practicum experiences. Furthermore, an innovative approach to delivering such content is a co-teaching approach. The findings of the current research suggested that adopting this delivery mode may be a more effective approach compared to traditional (i.e. single-teacher approaches) to content delivery.

What remains to be determined is how to better understand the connection between intentions and behaviour. To achieve this end, future research should focus on the features of the placement schools (e.g. climate) that may impact the enactment of practices. Furthermore, gathering data (both qualitative and quantitative) about the school context and including data from various stakeholders (i.e. school students, mentor teachers) may serve to provide a broader, more nuanced understanding of how to prepare PSTs for inclusion. Ultimately, this research represents a step forward in understanding how to better align the theory learnt at university with inclusive practices in the classroom.

References

Ahmmed, M., Sharma, U., & Deppeler, J. (2012). Variables affecting teachers' attitudes towards inclusive education in Bangladesh. *Journal of Research in Special Educational Needs, 12*(3), 132-140. doi: https://doi.org/10.1111/j.1471-3802.2011.01226.x.

Ahmmed, M., Sharma, U., & Deppeler, J. (2014). Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh. *Disability & Society, 29*(2), 317-331. doi: https://doi.org/10.1080/09687599.2013.796878.

Ahsan, M. T. (2015). Theory of Planned Behaviour as a Potential Framework for Predicting Teachers' Performances in the Inclusive Classrooms: A Review. *Bangladesh Journal of Educational Research, 1*(2), 1-11.Retrieved from: http://dept.ru.ac.bd/ier/index.php/bjer/index

Ahsan, M. T., Sharma, U., & Deppeler, J. M. (2012). Exploring Pre-Service Teachers' Perceived Teaching-Efficacy, Attitudes and Concerns about Inclusive Education in Bangladesh. *International Journal of whole schooling, 8*(2), 1-20. Retrieved from: http://www.wholeschooling.net/Journal_of_Whole_Schooling/IJWSIndex.html

Aiello, P., & Sharma, U. (2018). Improving intentions to teach in inclusive classrooms: the impact of teacher education courses on future Learning Support Teachers. *Form@ re-Open Journal per la formazione in rete, 18*(1), 207-219. doi: http://dx.doi.org/10.13128/formare-22605.

Ainscow, M. (2005). Developing inclusive education systems: what are the levers for change? *Journal of educational change, 6*(2), 109-124. doi: https://doi.org/10.1007/s10833-005-1298-4.

Ainscow, M. (2007). From special education to effective schools for all: a review of progress so far. *The SAGE handbook of special education*, 146-159.

Ainscow, M., Booth, T., & Dyson, A. (2006). *Improving schools, developing inclusion*: Routledge.

AITSL. (2011). National professional standards for teachers. In: Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA). Retrieved from https://www.aitsl.edu.au/docs/default-source/national-policy-framework/australian-professional-standards-for-teachers.pdf?sfvrsn=5800f33c_64

AITSL. (2018). *Accreditation of initial teacher education programs in Australia*. Melbourne, Victoria: Ministerial Council for Education, Early Childhood Development and Youth Affairs. .Retrieved from https://www.aitsl.edu.au/docs/default-source/national-policy-framework/accreditation-of-initial-teacher-education-programs-in-australia.pdf?sfvrsn=e87cff3c_22

Ajzen I. (1985) From Intentions to Actions: A Theory of Planned Behavior. In: Kuhl J., Beckmann J. (eds) Action Control. SSSP Springer Series in Social Psychology. Springer, Berlin, Heidelberg,doi: https://doi.org/10.1007/978-3-642-69746-3_2

Ajzen, I. (1987). Attitudes, traits, and actions: Dispositional prediction of behavior in personality and social psychology. In *Advances in experimental social psychology* (Vol. 20, pp. 1-63): Elsevier. doi: https://doi.org/10.1016/S0065-2601(08)60411-6

Ajzen, I. (1988). Attitudes, personality, and behavior. Dorsey Press

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179-211. doi:https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology and Health, 26*(9), 1113-1127. doi: https://doi.org/10.1080/08870446.2011.613995

Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. In: Albarracín, D., Johnson, B.T. and Zanna, M.P., (Eds.), The Handbook of Attitudes (pp. 173-221). Erlbaum, Mahwah.

Albarracin, D., & Shavitt, S. (2018). Attitudes and attitude change. *Annual review of psychology, 69*, 299-327. doi: https://doi.org/10.1146/annurev-psych-122216-011911

Allen, M. (2017). *The SAGE encyclopedia of communication research methods*: SAGE Publications.

Allport, G. W. (1935). Attitudes. In C. Murchison (Ed.), *A Handbook of Social Psychology* (Vol. 218, pp. 789–844). Worcester, Massachussets: Clark Unversity Press.

Antia, S. D., Jones, P., Luckner, J., Kreimeyer, K. H., & Reed, S. (2011). Social outcomes of students who are deaf and hard of hearing in general education classrooms. *Exceptional Children, 77*(4), 489-504. doi: https://doi.org/10.1177/001440291107700407

Arduin, S. (2015). A review of the values that underpin the structure of an education system and its approach to disability and inclusion. *Oxford Review of Education, 41*(1), 105-121. doi: https://doi.org/10.1080/03054985.2015.1006614

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British journal of social psychology, 40*(4), 471-499. doi: https://doi.org/10.1348/014466601164939

Armstrong, A., Armstrong, D., & Spandagou, I. (2010). Inclusive Education: International Policy & Practice. London: SAGE Publications Ltd doi: 10.4135/9781446221990

Australian Legal Information Institute. (2009). Disability Discrimination Act 1992. Retrieved from http://www.austlii.edu.au/cgi-bin/viewdb/au/legis/cth/consol_act/dda1992264/

Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school

in one local education authority. *Educational psychology, 20*(2), 191-211. doi:

https://doi.org/10.1080/713663717

Avramidis, E., & Kalyva, E. (2007). The influence of teaching experience and professional

development on Greek teachers' attitudes towards inclusion. *European Journal of*

Special Needs Education, 22(4), 367-389. doi:

https://doi.org/10.1080/08856250701649989

Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: a

review of the literature. *European Journal of Special Needs Education, 17*(2), 129-

147. doi: https://doi.org/10.1080/08856250210129056

Bacharach, N., Heck, T. W., & Dahlberg, K. (2010). Changing the face of student teaching

through coteaching. *Action in Teacher Education, 32*(1), 3-14. doi:

https://doi.org/10.1080/01626620.2010.10463538

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change.

Psychological review, 84(2), 191. doi: https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1986). *Prentice-Hall series in social learning theory.* Social foundations of

thought and action: A social cognitive theory. Prentice-Hall, Inc.

Bandura, A. (1989). Human agency in social cognitive theory. *American psychologist, 44*(9),

1175. doi: 10.1037/0003-066x.44.9.1175

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning.

Educational psychologist, 28(2), 117-148. doi:

https://doi.org/10.1207/s15326985ep2802_3

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W H Freeman/Times Books/ Henry

Holt & Co.

Batsiou, S., Bebetsos, E., Panteli, P., & Antoniou, P. (2008). Attitudes and intention of Greek

and Cypriot primary education teachers towards teaching pupils with special

educational needs in mainstream schools. *International Journal of Inclusive Education, 12*(2), 201-219. doi: https://doi.org/10.1080/13603110600855739

Beacham, N., & Rouse, M. (2012). Student teachers' attitudes and beliefs about inclusion and inclusive practice. *Journal of Research in Special Educational Needs, 12*(1), 3-11. doi: https://doi.org/10.1111/j.1471-3802.2010.01194.x

Berlach, R. G., & Chambers, D. J. (2011). Interpreting inclusivity: An endeavour of great proportions. *International Journal of Inclusive Education, 15*(5), 529-539. doi: https://doi.org/10.1080/13603110903159300

Boyle, C., Topping, K., & Jindal-Snape, D. (2013). Teachers' attitudes towards inclusion in high schools. *Teachers and Teaching, 19*(5), 527-542. doi: https://doi.org/10.1080/13540602.2013.827361

Bradshaw, L., & Mundia, L. (2006). Attitudes to and concerns about inclusive education: Bruneian inservice and preservice teachers. *International Journal of Special Education, 21*(1), 35-41. doi:10.1080/09687590500156329

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology, 3*(2), 77-101. doi: 10.1191/1478088706qp063oa

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist, 32*(7), 513. doi: https://doi.org/10.1037/0003-066X.32.7.513

Brown, C. M., Packer, T. L., & Passmore, A. (2013). Adequacy of the regular early education classroom environment for students with visual impairment. *The Journal of Special Education, 46*(4), 223-232. doi: https://doi.org/10.1177/0022466910397374

Campbell, M. (2010). An application of the theory of planned behavior to examine the impact of classroom inclusion on elementary school students. *Journal of evidence-based social work, 7*(3), 235-250. doi:10.1080/15433710903126554.

Carew, M. T., Deluca, M., Groce, N., & Kett, M. (2019). The impact of an inclusive education intervention on teacher preparedness to educate children with disabilities within the Lakes Region of Kenya. *International Journal of Inclusive Education, 23*(3), 229-244. doi: https://doi.org/10.1080/13603116.2018.1430181

Carroll, A. (2002). Inclusive practices in Australia. *International Journal of Disability, Development and Education, 49*(4), 421-424. doi:https://doi.org/10.1080/1034912022000028385

Carroll, A., Forlin, C., & Jobling, A. (2003). The impact of teacher training in special education on the attitudes of Australian preservice general educators towards people with disabilities. *Teacher education quarterly, 30*(3), 65-79. Retrieved from https://www.jstor.org/journal/teaceducquar?refreqid=excelsior%3Af0ac83f69ca26998 1a0284f009b32f75

Changpinit, S., Greaves, D., & Frydenberg, E. (2007). *Attitudes, knowledge, concerns, and coping strategies regarding inclusive education in a community of Thai educators.* Paper presented at the The 1st International conference on Educational Reform, Mahasarakham University, Thailand. Retrieved from http://www. icer. msu. ac. th/ICER2007/paper/CI03. pdf.

Chhabra, S., Srivastava, R., & Srivastava, I. (2010). Inclusive education in Botswana: The perceptions of school teachers. *Journal of Disability Policy Studies, 20*(4), 219-228. doi: https://doi.org/10.1177/1044207309344690

COAG. (2011). National disability strategy 2010–2020. Retrieved from https://www.dss.gov.au/sites/default/files/documents/05_2012/national_disability_stra tegy_2010_2020.pdf

Coates, R. D. (1989). The regular education initiative and opinions of regular classroom

teachers. *Journal of Learning Disabilities, 22*(9), 532-536. doi:

https://doi.org/10.1177/002221948902200902

Cohen, J. (1988). *Statistical Power Analysis for Behavioral Sciences* (2nd ed.). NJ: Erlbaum:

Hillsdale.

Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School climate and social–emotional

learning: Predicting teacher stress, job satisfaction, and teaching efficacy. *Journal of*

educational psychology, 104(4), 1189. doi: https://doi.org/10.1037/a0029356

Cologon, K. (2012). Confidence in their own ability: Postgraduate early childhood students

examining their attitudes towards inclusive education. *International Journal of*

Inclusive Education, 16(11), 1155-1173.

doi:https://doi.org/10.1080/13603116.2010.548106

Commonwealth Government of Australia (1992). Disability Discrimination Act. Canberra,

Australia. Retrieved from https://www.legislation.gov.au/Details/C2018C00125

Commonwealth Government of Australia. (2006). Disability standards for education 2005.

Retrieved from

https://docs.education.gov.au/system/files/doc/other/disability_standards_for_educatio

n_2005_plus_guidance_notes.pdf

Commonwealth Government of Australia. (2015). *Action Now: Classroom Ready Teachers:*

Australian Government Response: Department of Education and Training. Retrieved

from https://docs.education.gov.au/documents/australian-government-response-

action-now-classroom-ready-teachers-report

Commonwealth Government of Australia. (2016). Access to Real Learning: the Impact of

Policy, Funding and Culture on Students with Disability. Retrieved from

https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/students_with_disability/Report

Conner, M., Sheeran, P., Norman, P., & Armitage, C. J. (2000). Temporal stability as a moderator of relationships in the theory of planned behaviour. *British Journal of Social Psychology, 39*(4), 469-493. doi:https://doi.org/10.1348/014466600164598

Cook, L., & Friend, M. (2010). The state of the art of collaboration on behalf of students with disabilities. *Journal of Educational and Psychological Consultation, 20*(1), 1-8. doi:https://doi.org/10.1080/10474410903535398

Cornoldi, C., Terreni, A., Scruggs, T. E., & Mastropieri, M. A. (1998). Teacher attitudes in Italy after twenty years of inclusion. *Remedial and Special Education, 19*(6), 350-356. doi: https://doi.org/10.1177/074193259801900605

Darling-Hammond, L. (2012). *Powerful Teacher Education.: Lessons from Exemplary Programs*: John Wiley & Sons.

Davis, P., Florian, L., & Ainscow, M. (2004). *Teaching strategies and approaches for pupils with special educational needs: A scoping study*: DfES Publications Nottingham.

De Boer, A., Pijl, S. J., & Minnaert, A. (2011). Regular primary schoolteachers' attitudes towards inclusive education: A review of the literature. *International Journal of Inclusive Education, 15*(3), 331-353. doi:https://doi.org/10.1080/13603110903030089

de Graaf, G., Van Hove, G., & Haveman, M. (2013). More academics in regular schools? The effect of regular versus special school placement on academic skills in Dutch primary school students with Down syndrome. *Journal of Intellectual Disability Research, 57*(1), 21-38. doi: 10.1111/j.1365-2788.2011.01512.x

Dempsey, I., & Davies, M. (2013). National test performance of young Australian children with additional educational needs. *Australian Journal of Education, 57*(1), 5-18. doi: https://doi.org/10.1177/0004944112468700

Department of Education Employment and Workplace Relations. (2010). Smarter schools: Improving teacher quality. Retrieved from https://docs.education.gov.au/documents/smarter-schools-national-partnerships-improving-teacher-quality-low-ses-school-0

Department of Education Employment Workplace Relations. (2012). Report on the Review of Disability Standards for Education 2005. In: Commonwealth of Australia Canberra.

Disability Royal Commission. (2019). *Education and Learning Issues paper*. Retrieved from https://disability.royalcommission.gov.au/publications/Documents/education-learning-issues-paper.pdf

Dixon, R., & Verenikina, I. (2007). *Towards inclusive schools: An examination of socio-cultural theory and inclusive practices and policy in New South Wales DET schools.* Paper presented at the Learning and Socio-cultural Theory: Exploring Modern Vygotskian Perspectives International Workshop 2007.

Dueck, J. R. (2003). *Issues of inclusion: The relationship between teacher attitudes towards inclusion and teacher practice.* Lethbridge, Alta.: University of Lethbridge.

EADSNE. (2012). Profile of Inclusive Teachers. In. Odense, Denmark. Retrieved from https://www.european-agency.org/sites/default/files/Profile-of-Inclusive-Teachers.pdf

Erten, O., & Savage, R. S. (2012). Moving forward in inclusive education research. *International Journal of Inclusive Education, 16*(2), 221-233. doi: https://doi.org/10.1080/13603111003777496

Finke, E. H., Finke, E. H., McNaughton, D. B., & Drager, K. D. (2009). "All Children Can and Should Have the Opportunity to Learn": General Education Teachers' Perspectives on Including Children with Autism Spectrum Disorder who Require AAC. *Augmentative and Alternative Communication, 25*(2), 110-122. doi: 10.1080/07434610902886206

Finkelstein, S., Sharma, U., & Furlonger, B. (2019). The inclusive practices of classroom

    teachers: a scoping review and thematic analysis. *International Journal of Inclusive*

    Education, 1-28. doi: https://doi.org/10.1080/13603116.2019.1572232

Fishbein, M. (2009). An integrative model for behavioral prediction and its application to

    health promotion. In R. J. DiClemente, R. A. Crosby, & M. C. Kegler (Eds.),

    Emerging theories in health promotion practice and research(p. 215–234). Jossey-

    Bass.

Fishbein, M., & Ajzen, I. (1975). Belief, attitude. *Intention and Behavior: An Introduction to*

    Theory and Research.

Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to

    theory and research.

Florian, L. (2008). Inclusion: special or inclusive education: future trends. *British Journal of*

    Special Education, 35(4), 202-208. doi:https://doi.org/10.1111/j.1467-

    8578.2008.00402.x

Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational*

    Research Journal, 37(5), 813-828. doi:

    https://doi.org/10.1080/01411926.2010.501096

Foegen, A., Espin, C. A., Allinder, R. M., & Markell, M. A. (2001). Translating research into

    practice: Preservice teachers' beliefs about curriculum-based measurement. *The*

    Journal of Special Education, 34(4), 226-236. doi:

    https://doi.org/10.1177/002246690103400405

Forlin, Chambers, Loreman, T., Deppler, J., & Sharma, U. (2013). Inclusive education for

    students with disability: A review of the best evidence in relation to theory and

    practice. Australia:ARACY

Forlin, C. (1995). Educators' beliefs about inclusive practices in Western Australia. *British journal of special education, 22*(4), 179-185. doi: https://doi.org/10.1111/j.1467-8578.1995.tb00932.x

Forlin, C. (2010a). *Teacher education for inclusion: Changing paradigms and innovative approaches*: Routledge.

Forlin, C. (2010b). Teacher education reform for enhancing teachers' preparedness for inclusion. In (Vol. 14): International Journal of Inclusive Education.

Forlin, C. (2012a). *Future directions for inclusive teacher education: An international perspective*: Routledge.

Forlin, C. (2012b). Responding to the need for inclusive teacher education: Rhetoric or reality? In *Future directions for inclusive teacher education* (pp. 27-36): Routledge.

Forlin, C., & Chambers, D. (2011). Teacher preparation for inclusive education: Increasing knowledge but raising concerns. *Asia-Pacific Journal of teacher education, 39*(1), 17-32. doi: https://doi.org/10.1080/1359866X.2010.540850

Forlin, C., & Cooper, P. (2013). Student behaviour and emotional challenges for teachers and parents in Hong Kong. *British journal of special education, 40*(2), 58-64. doi:https://doi.org/10.1111/1467-8578.12022

Forlin, C., Kawai, N., & Higuchi, S. (2015). Educational reform in Japan towards inclusion: Are we training teachers for success? *International Journal of Inclusive Education, 19*(3), 314-331. doi: https://doi.org/10.1080/13603116.2014.930519

Forlin, C., Keen, M., & Barrett, E. (2008). The concerns of mainstream teachers: Coping with inclusivity in an Australian context. *International Journal of Disability, Development and Education, 55*(3), 251-264. doi: https://doi.org/10.1080/10349120802268396

Forlin, C., Loreman, T., & Sharma, U. (2014). A system-wide professional learning approach about inclusion for teachers in Hong Kong. *Asia-Pacific Journal of teacher education, 42*(3), 247-260. doi: https://doi.org/10.1080/1359866X.2014.906564

Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2009). Demographic differences in changing pre-service teachers' attitudes, sentiments and concerns about inclusive education. *International Journal of Inclusive Education, 13*(2), 195-209. doi: https://doi.org/10.1080/13603110701365356

Forlin, C., Sharma, U., & Loreman, T. (2007). An international comparison of pre-service teacher attitudes towards inclusive education. *Disability studies quarterly, 27*(4). doi: http://dx.doi.org/10.18061/dsq.v27i4.53

Friend, M. (2014). *Including Students with Special Needs: A Practical Guide for Classroom Teachers: Pearson New International Edition*: Pearson Education Limited.

Friend, M., & Cook, L. (2013). *Interactions: Collaboration skills for school professionals*: ERIC.

Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of Educational and Psychological Consultation, 20*(1), 9-27. doi: https://doi.org/10.1080/10474410903535380

Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of educational psychology, 76*(4), 569. doi: https://doi.org/10.1037/0022-0663.76.4.569

Graham, L. J., & Slee, R. (2008). An illusory interiority: Interrogating the discourse/s of inclusion. *Educational Philosophy and Theory, 40*(2), 277-293. doi: https://doi.org/10.1111/j.1469-5812.2007.00331.x

Graham, L. J., & Spandagou, I. (2011). From vision to reality: Views of primary school principals on inclusive education in New South Wales, Australia. *Disability & Society, 26*(2), 223-237. doi: https://doi.org/10.1080/09687599.2011.544062

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological review, 102*(1), 4. doi: https://doi.org/10.1037/0033-295X.102.1.4

Grieve, A. M. (2009). Teachers' beliefs about inappropriate behaviour: challenging attitudes? *Journal of Research in Special Educational Needs, 9*(3), 173-179. doi:https://doi.org/10.1111/j.1471-3802.2009.01130.x

Grima-Farrell, C. (2018). Bridging the Research-to-Practice Gap: Implementing the Research-to-Practice Model. *Australasian Journal of Special and Inclusive Education, 42*(1), 82-91. doi: https://doi.org/10.1017/jsi.2018.9

Grima-Farrell, C. R., Bain, A., & McDonagh, S. H. (2011). Bridging the research-to-practice gap: A review of the literature focusing on inclusive education. *Australasian Journal of Special Education, 35*(2), 117-136. doi: https://doi.org/10.1375/ajse.35.2.117

Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: theory and practice, 15*(2), 273-289. doi: https://doi.org/10.1080/13540600902875340

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). Introduction to applied thematic analysis. *Applied thematic analysis, 3*, 20. doi:https://dx.doi.org/10.4135/9781483384436.n1

Hall, G. E. (1979). The concerns-based approach to facilitating change. *Educational Horizons, 57*(4), 202-208.

Hallmark Disability Research Institute. (2015). Submission: General discussion on the right to education of persons with disabilities. In. Melbourne: Melbourne University.

Hammer, D., & Berland, L. K. (2014). Confusing claims for data: Acritique of common practices for presenting qualitative researchon learning.Journal of the Learning Sciences,23, 37–46

https://www.researchgate.net/publication/277968290_Guidelines_for_Establishing_Reliability_When_Coding_Narrative_Data

Hankins, M., French, D., & Horne, R. (2000). Statistical guidelines for studies of the theory of reasoned action and the theory of planned behaviour. *Psychology and Health, 15*(2), 151-161. doi: https://doi.org/10.1080/08870440008400297

Hanushek, E. A. (2014). Boosting teacher effectiveness. *What lies ahead for America's children and their schools*, 23-35.

Hastings, R. P., & Oakford, S. (2003). Student teachers' attitudes towards the inclusion of children with special needs. *Educational psychology, 23*(1), 87-94. doi: https://doi.org/10.1080/01443410303223

Hattie, J. A. (2009). Visible learning: A synthesis of 800+ meta-analyses on achievement. *Abingdon: Routledge*. doi: 10.1007/s11159-011-9198-8

Hornby, G. (2001). Promoting responsible inclusion: Quality education for all. *Enabling inclusion: Blue skys--Dark clouds. London: Stationary Office*.

Horne, P. E., & Timmons, V. (2009). Making it work: Teachers' perspectives on inclusion. *International Journal of Inclusive Education, 13*(3), 273-286. doi: https://doi.org/10.1080/13603110701433964

Hosford, S., & O'Sullivan, S. (2016). A climate for self-efficacy: the relationship between school climate and teacher efficacy for inclusion. *International Journal of Inclusive Education, 20*(6), 604-621. doi: https://doi.org/10.1080/13603116.2015.1102339

Hwang, Y.-S., & Evans, D. (2011). Attitudes towards inclusion: Gaps between belief and practice. *International Journal of Special Education, 26*(1), 136-146.

Jordan, A., Glenn, C., & McGhie-Richmond, D. (2010). The Supporting Effective Teaching (SET) project: The relationship of inclusive teaching practices to teachers' beliefs about disability and ability, and about their roles as teachers. *Teaching and teacher education, 26*(2), 259-266. doi: https://doi.org/10.1016/j.tate.2009.03.005

Jordan, A., Schwartz, E., & McGhie-Richmond, D. (2009). Preparing teachers for inclusive classrooms. *Teaching and teacher education, 25*(4), 535-542. doi: https://doi.org/10.1016/j.tate.2009.02.010

Jordan, A., & Stanovich, P. (2001). Patterns of teacher-student interaction in inclusive elementary classrooms and correlates with student self-concept. *International Journal of Disability, Development and Education, 48*(1), 33-52. doi: https://doi.org/10.1080/10349120120036297

Jordan, A., & Stanovich, P. (2004). The Beliefs and Practices of Canadian Teachers about Including Students with Special Needs in their Regular Elementary Classrooms. *Exceptionality Education Canada, 14*, 25-46.

Kalambouka, A., Farrell, P., Dyson, A., & Kaplan, I. (2007). The impact of placing pupils with special educational needs in mainstream schools on the achievement of their peers. *Educational Research, 49*(4), 365-382. doi: https://doi.org/10.1080/00131880701717222

Kuyini, A. B., & Desai, I. (2007). Principals' and teachers' attitudes and knowledge of inclusive education as predictors of effective teaching practices in Ghana. *Journal of Research in Special Educational Needs, 7*(2), 104-113. doi: https://doi.org/10.1111/j.1471-3802.2007.00086.x

Labon, D. (1999). *Inclusive Education at Work: Students with Disabilities in Mainstream Schools*: ERIC.

Lambe, J., & Bones, R. (2008). Research Section: The impact of a special school placement on student teacher beliefs about inclusive education in Northern Ireland. *British journal of special education, 35*(2), 108-116. doi: https://doi.org/10.1111/j.1467-8578.2008.00381.x

Lancaster, J., & Bain, A. (2019). Designing University Courses to Improve Pre-Service Teachers' Pedagogical Content Knowledge of Evidence-Based Inclusive Practice. *Australian Journal of Teacher Education, 44*(2), 4. doi: https://doi.org/10.14221/ajte.2018v44n2.4

Lifshitz, H., & Glaubman, R. (2002). Religious and secular students' sense of self-efficacy and attitudes towards inclusion of pupils with intellectual disability and other types of needs. *Journal of Intellectual Disability Research, 46*(5), 405-418. doi: 10.1046/j.1365-2788.2002.00424.x

Lindsay, G. (2007). Educational psychology and the effectiveness of inclusive education/mainstreaming. *British journal of educational psychology, 77*(1), 1-24. doi: 10.1348/000709906X156881

Little, M. E., & Houston, D. (2003). Research into practice through professional development. *Remedial and Special Education, 24*(2), 75-87. doi: https://doi.org/10.1177/07419325030240020301

Loreman, T., Forlin, C., & Sharma, U. (2007). An international comparison of pre-service teacher attitudes towards inclusive education. *Disability studies quarterly, 27*(4).

Loreman, T., Sharma, U., & Forlin, C. (2013). Do pre-service teachers feel ready to teach in inclusive classrooms? A four country study of teaching self-efficacy. *Australian Journal of Teacher Education (Online), 38*(1), 27. doi: 10.14221/ajte.2013v38n1.10

MacFarlane, K., & Woolfson, L. M. (2013). Teacher attitudes and behavior toward the inclusion of children with social, emotional and behavioral difficulties in mainstream

schools: An application of the theory of planned behavior. *Teaching and teacher education, 29*, 46-52. doi: https://doi.org/10.1016/j.tate.2012.08.006

Malak, M. S. (2013). Inclusive education in Bangladesh: Are pre-service teachers ready to accept students with special educational needs in regular classes? *Disability, CBR & Inclusive Development, 24*(1), 56-81. doi: 10.5463/DCID.v24i1.191

Malinen, O.-P., Savolainen, H., & Xu, J. (2012). Beijing in-service teachers' self-efficacy and attitudes towards inclusive education. *Teaching and teacher education, 28*(4), 526-534. doi: https://doi.org/10.1016/j.tate.2011.12.004

Mayer, D., Cotton, W., & Simpson, A. (2017). Teacher education in Australia. In *Oxford Research Encyclopedia of Education*.

McHugh, M. L. (2012). Interrater reliability: the kappa statistic. *Biochemia medica: Biochemia medica, 22*(3), 276-282. doi: 10.11613/BM.2012.031

Meijer, C., & Foster, S. (1988). The effect of teacher self-efficacy on referral chance. *The Journal of Special Education, 22*(3), 378-385. doi: https://doi.org/10.1177/002246698802200309

Miesera, S., DeVries, J. M., Jungjohann, J., & Gebhardt, M. (2019). Correlation between attitudes, concerns, self-efficacy and teaching intentions in inclusive education evidence from German pre-service teachers using international scales. *Journal of Research in Special Educational Needs, 19*(2), 103-114. doi:https://doi.org/10.1111/1471-3802.12432

Ministerial Council on Education Employment and Training and Youth Affairs. (2008). *Melbourne declaration on educational goals for young Australians*: ERIC.

Murray, S., Nuttall, J., & Mitchell, J. (2008). Research into initial teacher education in Australia: A survey of the literature 1995–2004. *Teaching and Teacher Education, 24*(1), 225-239. doi: https://doi.org/10.1016/j.tate.2007.01.013

Norwich, B. (2014). Changing policy and legislation and its effects on inclusive and special education: a perspective from England. *British journal of special education, 41*(4), 403-425. doi: https://doi.org/10.1111/1467-8578.12079

O'Neill, S. C., & Stephenson, J. (2014). Evidence-Based Classroom and Behaviour Management Content in Australian Pre-Service Primary Teachers' Coursework: Wherefore Art Thou? *Australian Journal of Teacher Education, 39*(4), n4. doi: https://doi.org/10.14221/ajte.2014v39n4.4

Odom, S. L. (2000). Preschool inclusion: What we know and where we go from here. *Topics in early childhood special education, 20*(1), 20-27. doi: https://doi.org/10.1177/027112140002000104

OECD. (2005). Teachers matter. Attracting, developing and retaining effective teachers. In: Paris. OECD-Education Committee.

Pallant, J. M., SPSS Survival. (2010). A step by step guide to data analysis using SPSS. *Berkshire UK: McGraw-Hill Education*.

Parasuram, K. (2006). Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability & Society, 21*(3), 231-242. doi: https://doi.org/10.1080/09687590600617352

Park, M. H., Dimitrov, D. M., Das, A., & Gichuru, M. (2016). The teacher efficacy for inclusive practices (TEIP) scale: Dimensionality and factor structure. *Journal of Research in Special Educational Needs, 16*(1), 2-12. doi: https://doi.org/10.1111/1471-3802.12047

Patton, M. Q. (2002). Qualitative research and evaluation methods . Thousand Oakes. In: ca: sage.

Pearson, S. (2009). Using activity theory to understand prospective teachers' attitudes to and construction of special educational needs and/or disabilities. *Teaching and teacher education, 25*(4), 559-568. doi: https://doi.org/10.1016/j.tate.2009.02.011

Peetsma, T., Vergeer, M., Roeleveld, J., & Karsten, S. (2001). Inclusion in education: Comparing pupils' development in special and regular education. *Educational review, 53*(2), 125-135. doi: https://doi.org/10.1080/00131910125044

Perugini, M. (2005). Predictive models of implicit and explicit attitudes. *British Journal of Social Psychology, 44*(1), 29-45. doi: 10.1348/014466604X23491

Productivity Commission. (2012). Schools workforce: Productivity commission research report. *Canberra: Australian Government.*

Romero-Contreras, S., Garcia-Cedillo, I., Forlin, C., & Lomelí-Hernández, K. A. (2013). Preparing teachers for inclusion in Mexico: how effective is this process? *Journal of Education for Teaching, 39*(5), 509-522. doi: https://doi.org/10.1080/02607476.2013.836340

Round, P. N., Subban, P. K., & Sharma, U. (2016). 'I don't have time to be this busy.'Exploring the concerns of secondary school teachers towards inclusive education. *International Journal of Inclusive Education, 20*(2), 185-198. doi: https://doi.org/10.1080/13603116.2015.1079271

Rouse, M. (2010). Reforming initial teacher education: A necessary but not sufficient condition for developing inclusive practice. In *Teacher education for inclusion* (pp. 73-81): Routledge.

Ruijs, N. M., & Peetsma, T. T. (2009). Effects of inclusion on students with and without special educational needs reviewed. *Educational Research Review, 4*(2), 67-79. doi: https://doi.org/10.1016/j.edurev.2009.02.002

Sachs, J. (2003). *The Activist teaching profession*. (Professional learning). Buckingham ; Philadelphia, PA: Open University Press.

Salkind, N. J. (2006). *Encyclopedia of Measurement and Statistics*: SAGE Publications.

Salkind, N. J. (2010). *Encyclopedia of research design* (Vol. 2): Sage.

Salvia, J., & Munson, S. (1986). Attitudes of regular education teachers toward mainstreaming mildly handicapped students. *Mainstreaming handicapped children: Outcomes, controversies, and new directions*, 111-128.

Savolainen, H., Engelbrecht, P., Nel, M., & Malinen, O.-P. (2012). Understanding teachers' attitudes and self-efficacy in inclusive education: Implications for pre-service and in-service teacher education. *European Journal of Special Needs Education, 27*(1), 51-68. doi: https://doi.org/10.1080/08856257.2011.613603

Schwarz, N., & Bohner, G. (2001). The construction of attitudes. *Blackwell handbook of social psychology: Intraindividual processes, 1*, 436-457. doi:https://doi.org/10.1002/9780470998519.ch20

Scruggs, T. E., & Mastropieri, M. A. (1996). Teacher perceptions of mainstreaming/inclusion, 1958–1995: A research synthesis. *Exceptional Children, 63*(1), 59-74. https://doi.org/10.1177/001440299606300106

Shaddock, A., Hoffman-Raap, L., Smith, S., Giorcelli, L., & Waddy, N. (2007). 10. What are the professional development needs of mainstream teachers who have students with a disability in their classrooms? *A Project to Improve the Learning Outcomes of Students with Disabilities in the Early, Middle and Post Compulsory Years of Schooling*, 264.

Shade, R. A., & Stewart, R. (2001). General education and special education preservice teachers' attitudes toward inclusion. *Preventing School Failure: Alternative Education*

for Children and Youth, 46(1), 37-41. doi:
https://doi.org/10.1080/10459880109603342

Sharma, U. (2001). *The attitudes and concerns of school principals and teachers regarding the integration of students with disabilities into regular schools in Delhi, India.* https://minerva-access.unimelb.edu.au/handle/11343/37802

Sharma, U. (2012). Changing pre-service teachers' beliefs to teach in inclusive classrooms in Victoria, Australia. *Australian Journal of Teacher Education, 37*(10), 53. doi: 10.14221/ajte.2012v37n10.6

Sharma, U. (2018). Preparing to Teach in Inclusive Classrooms. In *Oxford Research Encyclopedia of Education*.

Sharma, U., & Chow, E. W. (2008). The attitudes of Hong Kong primary school principals toward integrated education. *Asia Pacific Education Review, 9*(3), 380-391. doi: https://doi.org/10.1007/BF03026725

Sharma, U., & Desai, I. (2002). Measuring concerns about integrated education in India. *Asia and Pacific Journal on Disability, 5*(1), 2-14.

Sharma, U., & Desai, I. (2008). The changing roles and responsibilities of school principals relative to inclusive education. In C. Forlin, & M-G. J. Lian (Eds.), *Reform, Inclusion & Teacher Education: Towards a New Era of Special Education in the Asia-Pacific Region* (pp. 153 - 168). UK, USA & Canada: Routledge.

Sharma, U., Ee, J., & Desai, I. (2003). A comparison of Australian and Singaporean pre-service teachers' attitudes and concerns about inclusive education. *Teaching and learning, 24*(2), 207-217.

Sharma, U., Forlin, C., & Loreman, T. (2008). Impact of training on pre-service teachers' attitudes and concerns about inclusive education and sentiments about persons with

disabilities. *Disability & Society, 23*(7), 773-785. doi: https://doi.org/10.1080/09687590802469271

Sharma, U., Forlin, C., Loreman, T., & Earle, C. (2006). Pre-Service Teachers' Attitudes, Concerns and Sentiments about Inclusive Education: An International Comparison of Novice Pre-Service Teachers. *International Journal of Special Education, 21*(2), 80-93.

Sharma, U., & George, S. (2016). Understanding teacher self-efficacy to teach in inclusive classrooms. In *Asia-pacific perspectives on teacher self-efficacy* (pp. 37-51): Brill Sense.doi: 10.1007/978-94-6300-521-0_3

Sharma, U., & Jacobs, D. K. (2016). Predicting in-service educators' intentions to teach in inclusive classrooms in India and Australia. *Teaching and teacher education, 55*, 13-23. doi: https://doi.org/10.1016/j.tate.2015.12.004

Sharma, U., Loreman, T., & Forlin, C. (2012). Measuring teacher efficacy to implement inclusive practices. *Journal of Research in Special Educational Needs, 12*(1), 12-21. doi:https://doi.org/10.1111/j.1471-3802.2011.01200.x

Sharma, U., Loreman, T., & Simi, J. (2017). Stakeholder perspectives on barriers and facilitators of inclusive education in the Solomon Islands. *Journal of Research in Special Educational Needs, 17*(2), 143-151. doi:https://doi.org/10.1111/1471-3802.12375

Sharma, U., & Nuttal, A. (2016). The impact of training on pre-service teacher attitudes, concerns, and efficacy towards inclusion. *Asia-Pacific Journal of teacher education, 44*(2), 142-155. doi: https://doi.org/10.1080/1359866X.2015.1081672

Sharma, U., Simi, J., & Forlin, C. (2015). Preparedness of Pre-Service Teachers for Inclusive Education in the Solomon Islands. *Australian Journal of Teacher Education, 40*(5). doi: 10.14221/ajte.2015v40n5.6

Sharma, U., & Sokal, L. (2015). The impact of a teacher education course on pre-service teachers' beliefs about inclusion: an international comparison. *Journal of Research in Special Educational Needs, 15*(4), 276-284. doi:https://doi.org/10.1111/1471-3802.12043

Sharma, U., & Sokal, L. (2016). Can Teachers' Self-Reported Efficacy, Concerns, and Attitudes Toward Inclusion Scores Predict Their Actual Inclusive Classroom Practices? *Australasian Journal of Special Education, 40*(1), 21-38. doi: https://doi.org/10.1017/jse.2015.14

Sheeran, P. (2002). Intention—behavior relations: a conceptual and empirical review. *European review of social psychology, 12*(1), 1-36. doi: https://doi.org/10.1080/14792772143000003

Shek, D. T., & Sun, R. C. (2012). Promoting psychosocial competencies in university students: evaluation based on a one-group pre-test/post-test design. *International Journal on Disability and Human Development*, *11(3),* 229-234. doi: 10.1515/ijdhd-2012-0039

Shulman. (2004). Knowledge and teaching: foundations of the new reform (1987). *The wisdom of practice. essays on teaching and learning to teach*, 250-252.

Sleeter, C. (2014). Toward teacher education research that informs policy. *Educational Researcher, 43*(3), 146-153. doi: https://doi.org/10.3102/0013189X14528752

Smith, M. K., & Smith, K. E. (2000). "I believe in inclusion, but…": Regular education early childhood teachers' perceptions of successful inclusion. *Journal of Research in Childhood Education, 14*(2), 161-180. doi:https://doi.org/10.1080/02568540009594761

Smyth, J. (2013). Losing our way? Challenging the direction of teacher education in Australia by reframing it around the Socially Just School. *Asia-Pacific Journal of Teacher Education, 41*(1), 111-122. doi: https://doi.org/10.1080/1359866X.2012.753990

Snyder, R. (1999). Inclusion: A Qualitative Study of Inservice General Education Teachers' Attitudes and Concerns. Magazine: Education; Fall. In: EBSCO Publishing.

Sokal, L., & Sharma, U. (2017). " Do I Really Need a Course to Learn to Teach Students with Disabilities? I've Been Doing It for Years". *Canadian Journal of Education, 40*(4), n4.

Stephenson, J., O'Neill, S., & Carter, M. (2012). Teaching students with disabilities: A web-based examination of preparation of preservice primary school teachers. *Australian Journal of Teacher Education, 37*(5), 3. doi: 10.14221/ajte.2012v37n5.5

Subban, P., & Sharma, U. (2005). Understanding educator attitudes toward the implementation of inclusive education. *Disability studies quarterly, 25*(2).

Symeonidou, S. (2017). Initial teacher education for inclusion: a review of the literature. *Disability & Society, 32*(3), 401-422. doi: https://doi.org/10.1080/09687599.2017.1298992

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5): Pearson Boston, MA.

TEMAG. (2014). *Action now: Classroom ready teachers*: Teacher Education Ministerial Advisory Group. Retrieved from https://docs.education.gov.au/system/files/doc/other/action_now_classroom_ready_te achers_accessible.pdf

Thomazet, S. (2009). From integration to inclusive education: Does changing the terms improve practice? *International Journal of Inclusive Education, 13*(6), 553-563. doi: https://doi.org/10.1080/13603110801923476

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and teacher education, 17*(7), 783-805. doi: https://doi.org/10.1016/S0742-051X(01)00036-1

Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and teacher education, 23*(6), 944-956. doi: https://doi.org/10.1016/j.tate.2006.05.003

Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of educational research, 68*(2), 202-248. doi: https://doi.org/10.3102/00346543068002202

Tsui, K., Sin, K., & Yu, H. (2007). Research report of the inclusive education implementation in Hong Kong primary schools. *HKSES and HKPERA, Hong Kong*.

Uditsky, B., & Hughson, A. (2007). Handbook for Parliamentarians on the Convention on the Rights of Persons with Disabilities: From Exclusion to Equality–Realizing the Rights of Persons with Disabilities.

UN General Assembly. (1948). Universal declaration of human rights. *UN General Assembly, 302*(2). available at: https://www.refworld.org/docid/3ae6b3712c.html

UNESCO. (1994). *The Salamanca Statement and Framework for action on special needs education: adopted by the World Conference on Special Needs Education; Access and Quality. Salamanca, Spain, 7-10 June 1994*: UNESCO.

UNESCO. (2009). Policy Guidelines on Inclusion in Education. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000177849

UNESCO. (2013). *Promoting inclusive teacher education: Introduction*: UNESCO.

UNESCO. (2015). Education for all global monitoring report-- 2015. In: Paris: UNESCO.

Unianu, E. M. (2012). Teachers' attitudes towards inclusive education. *Procedia-Social and Behavioral Sciences, 33*, 900-904. doi: https://doi.org/10.1016/j.sbspro.2012.01.252

UNICEF. (2013). *The State of the World's Children, 2013: Children with Disabilities*: United Nations Children's Fund (UNICEF)

United Nations. (2006). Convention on the Rights of Persons with Disabilities. available at: https://www.refworld.org/docid/45f973632.html

Varcoe, L., & Boyle, C. (2014). Pre-service primary teachers' attitudes towards inclusive education. *Educational psychology, 34*(3), 323-337. doi:https://doi.org/10.1080/01443410.2013.785061

Vaughn, S., Schumm, J. S., Jallad, B., & Slusher, J. (1996). Teachers' views of inclusion. *Learning Disabilities Research & Practice*, *11*(2), 96–106.

Villa, R. A., Thousand, J. S., Meyers, H., & Nevin, A. (1996). Teacher and administrator perceptions of heterogeneous education. *Exceptional Children, 63*(1), 29-45. doi:https://doi.org/10.1177/001440299606300103

Weisel, A., & Dror, O. (2006). School climate, sense of efficacy and Israeli teachers' attitudes toward inclusion of students with special needs. *Education, Citizenship and Social Justice, 1*(2), 157-174. doi:https://doi.org/10.1177/1746197906064677

Westwood, P., & Graham, L. (2003). Inclusion of students with special needs: Benefits and obstacles perceived by teachers in New South Wales and South Australia. *Australian Journal of Learning Difficulties, 8*(1), 3-15. doi:https://doi.org/10.1080/19404150309546718

World Conference on Education for All Meeting Basic Learning Needs. (1990). *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*: Inter-Agency Commission.

World Education Forum. (2015). Education 2030: Towards inclusive and equitable quality education and lifelong learning for all, in 'World Education Forum'.

World Health Organisation. (2011). World report on disability. *Geneva: WHO*.

Yan, T., & Deng, M. (2019). Regular education teachers' concerns on inclusive education in

China from the perspective of concerns-based adoption model. *International Journal*

of Inclusive Education, 23(4), 384-404.

doi:https://doi.org/10.1080/13603116.2018.1435741

Yan, Z., & Sin, K.-f. (2014). Inclusive education: teachers' intentions and behaviour analysed

from the viewpoint of the theory of planned behaviour. *International Journal of*

Inclusive Education, 18(1), 72-85. doi:https://doi.org/10.1080/13603116.2012.757811

Zundans-Fraser, L., & Lancaster, J. (2012). Enhancing the inclusive self-efficacy of

preservice teachers through embedded course design. *Education Research*

International, 2012. doi:http://dx.doi.org/10.1155/2012/581352.

Appendices

Appendix A

Explanatory Statement and Consent Form

MONASH University

Explanatory Statement for **Pre-service Teachers** *(Questionnaire and/or observation)*

Project Title: Investigating Pre-service and In-service Teachers' Enactment of Inclusive Practices

We are conducting a research project at Monash University in the Faculty of Education. You are invited to take part in the study. Please read this Explanatory Statement document in full before deciding whether or not to take part in our research.

What does the research involve?

Today, given the legal requirement to include all students, inclusive education appears to have been embraced, at least in theory. Teachers are the professional charged with making inclusion a reality in the classroom. However, teachers continue to report concerns and feelings of inadequacy when faced with the challenge of catering for diverse student populations. As future teaching professionals, it remains uncertain how best to prepare you to teach inclusively. Importantly, it is recognised that the experiences and knowledge gained through your teacher education program can help shape, develop and bolster your future competencies and attitudes. Therefore, it appears that understanding if' and 'how' inclusive pedagogies are implemented by pre-service teachers is an important area of inquiry. This will inform researchers how best to target and tailor teacher education programs so that inclusion no longer remains idealistic rhetoric, but practiced in the classroom.

This research aims to understand the question of why some teachers implement effective inclusive practices and others find it challenging. Participants can either take part in the questionnaire only and/or the observation study. In the questionnaire study participants will be asked to complete a five-part questionnaire. This includes: demographic information and one's attitudes, concerns, efficacy and intentions relating to future inclusive teaching practices. The questionnaire will take approximately **10 minutes** to complete on two occasions at the end of the first class (unit EDF3211) and at the end of the last class (unit EDF3211). If participants choose to take part in the observation phase of this study it will involve participants being observed during their placement at a school on three different occasions. Each observation will use an observation scale and last the **duration of a full lesson** and will take place at a time convenient to you. Potential participants can take part in the questionnaire and the observation, either the questionnaire or the observation or not take part in either.

Consenting to participate in the project and your right to withdrawal

After reading this Explanatory Statement, you are also required to sign and return a Consent form. Participation is voluntary and you have the right to withdraw from taking part in this study at any time. Your participation is voluntary, you can choose not to participate in part or the entire project and you can withdraw at any point of time. Please note that to participate or not to participate in this research there will be no impact on your assessment and results in the unit, also this research is not a part of the course requirements itself and it will not affect the way you are assessed in the unit.

Possible benefits and risks to participants

The findings of this study could help pre-service teachers become more reflective and effective practitioners in inclusive classrooms. Also, the opportunity to be observed and get feedback from 'real-life' teaching situations may help develop competencies to work with diverse populations. The wider education community may also benefit from this research. This project represents an important first step in the creation of future practice guidelines and in deciding where to focus teacher education.

There are no foreseeable risks to pre-service teachers from participating in our research, however if you become upset for any reason during or after the data collection please contact the researchers for an opportunity to debrief. There is no payment for participating in our research.

Confidentiality and Data Storage

Participation in this study will be treated confidentially and all information will be stored anonymously and securely on password-protected hardware. Questionnaire will be fully anonymous throughout the data collection and analysis process, before being securely destroyed. Observation measures will be fully anonymous throughout the data collection and analysis process. As your participation in this research will be treated confidentially and all information will be kept anonymously, no one will be able to identify you. Data collected will be stored in keeping with Monash University rules. It will be stored on the University premises, in a locked filing cabinet, or a password protected computer, for 5 years.

Results

The data and subsequent research findings will be published and discussed in peer-reviewed journals and if the opportunity should arise, conferences. In this event, because it is confidential data, nobody will be named and participants will not be identified in any way. If you would like to receive a summary of the overall results please email contact researcher Dr Christine Grove.

Queries and Concerns

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics (MUHREC):

Executive Officer
Monash University Human Research Ethics Committee (MUHREC)
Room 111, Chancellery Building E,
24 Sports Walk, Clayton Campus
Research Office
Monash University VIC 3800
Email: muhrec@monash.edu
Tel: +61 3 9905 2052   Fax: +61 3 9905 3831

You can also contact the researchers if there is any issue and concern.

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Appendix B

Questionnaire

MONASH University

Inclusive Education Questionnaire

Pre-Service Teacher Participant Information Form
Prior to completing the questionnaire, please complete the following demographic questions

A. Personal details

First Name: _____

Family Name: _____

1. Gender

☐ Male ☐ Female ☐ Other

2. Age

☐ Below 25 years ☐ 36-40 years
☐ 25-30 years ☐ Above 40 years
☐ 31-35 years

B. Educational History and Future Inclusive Practices

3. What is your highest educational qualification?

☐ Below Bachelor (e.g. High school)
☐ Bachelor
☐ Masters
☐ Educational Specialist Degree
☐ Doctor of Philosophy
☐ Doctor of Education

4. Which grade level do you wish to work with in the future?

☐ Preschool ☐ Primary ☐ Secondary

5. Have you had direct experience (professional or private life) with people with disability?

☐ Yes ☐ No

If 'No', proceed to question 8.

6. If yes, what was/is the nature of your relationship/s?

☐ Acquaintance (e.g. Neighbour, shop assistant)
☐ Casual (e.g. Fellow student, co-worker, employee)
☐ Close (e.g. Room-mate, friend, and relative)
☐ Intimate (e.g. Spouse, child, sibling)

7. Please estimate the relative amount of time you have been in contact with this/these person/people

☐ Little to none
☐ Some
☐ High (at least 30 full days)

8. Please rate your *degree of success* in teaching diverse student populations within regular classrooms

☐ Low
☐ Average
☐ High
☐ No opportunity yet

9. Please rate your *level of confidence* in teaching diverse student populations within regular classrooms ☐ Low ☐ Average ☐ High ☐ No opportunity yet	10. Please rate the level of education you have in catering to students with diverse needs: ☐ None ☐ 1 unit/subject ☐ This content has been taught in courses on other topics ☐ 2 units/subjects ☐ More than 2 units/subjects
11. Do you have a documented disability ☐ Yes ☐ No	12. Your level of knowledge of the local legislation or policy as it pertains to students with disabilities ☐ None ☐ Poor ☐ Average ☐ Good ☐ Very Good
13. Please list three factors that will facilitate inclusion for all students in your future classroom (i.e. What support will make it easier for you to include all students (with and without disabilities) in your classroom?) 1) _____ 2) _____ 3) _____	14. Please list three factors that hinder or will hinder the inclusion of all students in your future classrooms 1) _____ 2) _____ 3) _____

A SURVEY OF EDUCATORS' PERCEPTIONS ABOUT INCLUSIVE EDUCATION

In order to be able to track pre and post data please include last four digits of your student number. This will not be used to identify individuals and will be removed from the data following the second administration.

P   R   E   __   __   __   __

PART A: Attitudes to Inclusion Scale
(Sharma & Jacob, 2016)

The AIS measures educators' attitudes to the inclusion of students with diversities in regular schools. Inclusion means that students who have diverse learning needs are educated in regular classrooms alongside their peers with necessary support to students and the teacher. Please rate your degree of agreement by choosing one of the 7 anchors that best reflects your agreement with each statement. Please note that there are no right or wrong answers.

1	2	3	4	5	6	7
Strongly disagree	Moderately disagree	Slightly Disagree	Undecided	Slightly agree	Moderately Agree	Strongly agree

	1	2	3	4	5	6	7
1. "I believe that all students regardless of their ability should be taught in regular classrooms."							
2. "I believe that inclusion is beneficial to all students socially."							
3. "I believe that inclusion benefits all students academically."							
4. "I believe that all student can learn in inclusive classrooms if their teachers are willing to adapt the curriculum."							
7. "I am pleased that I have the opportunity to teach students with lower acadmic ability alonsgide other students in my class."							
8. "I am excited to teach students with a range of abilities in my class."							
9. "I am pleased that including students with a range of abilities will make me a better teacher."							
10. "I am happy to have students who need assistance with their daily activities included in my classrooms."							

Intention to Teach in Inclusive Classroom Scale
(Sharma & Jacob, 2016)

Questions 11 to 17 relate to your teaching in relation to working with students who need additional support. Please indicate how likely It is you will do this. Please note that the anchors used for the items below are different from those used above.

1	2	3	4	5	6	7
Extremely unlikely	Very unlikely	Somewhat unlikely	Not sure	Somewhat likely	Very likely	Extremely likely

	1	2	3	4	5	6	7
11. "Change the curriculum to meet the learning needs of a student with learning difficulty enrolled in your class."							
12. "Consult with the parents of a student who is struggling in your class."							
13. "Consult with your colleagues to identify possible ways you can assist a struggling student in your class."							
14. "Undertake a professional development program so you can teach students with diverse learning needs well."							
15. "Consult with a student who is displaying challenging behaviours to find out better ways to work with him/her."							
16. "Include students with severe disabilities in a range of social activities in your class."							
17. "Change the assessment tasks to suit the learning profile of a student who is struggling (e.g providing longer time to complete the task or modifying test questions)."							

PART B
CONCERNS ABOUT INCLUSIVE EDUCATION
(Sharma & Desai, 2002)

Inclusive education is one form of educational provision that may be made for students with disabilities within the school system. In the context of your **expectations** regarding the school situation and/or your **personal experiences, please** indicate whether any of the following items will be of concern to you if a student with a disability were included in your class/school.

INSTRUCTIONS

Please indicate your level of concern by circling **the most appropriate number that applies to you.**

4	3	2	1
Extremely Concerned	**Very Concerned**	**A Little Concerned**	**Not at All Concerned**

	4	3	2	1
1. I will not have enough time to plan educational programs for students with disabilities.	4	3	2	1
2. It will be difficult to maintain discipline in class.	4	3	2	1
3. I do not have knowledge and skills required to teach students with disabilities.	4	3	2	1
4. I will have to do additional paper work.	4	3	2	1
5. Students with disabilities will not be accepted by students without disabilities.	4	3	2	1
6. Parents of children without disabilities may not like the idea of placing their children in the same classroom with students with disabilities.	4	3	2	1
7. My school will not have enough funds to implement inclusion successfully.	4	3	2	1
8. There will be inadequate para-professional staff available to support students with disabilities (e.g., speech pathologist, physiotherapist, Occupational therapist)	4	3	2	1
9. I will not receive enough incentives (e.g. additional remuneration or allowance) to teach students with disabilities.	4	3	2	1
10. My workload will increase.	4	3	2	1
11. Other school staff members will be stressed.	4	3	2	1
12. My school will have difficulty in accommodating students with various types of disabilities because of inappropriate infrastructure (e.g. architectural barriers).	4	3	2	1
13. There will be inadequate resources/special teacher staff available to support inclusion.	4	3	2	1
14. My school will not have adequate special education instructional materials and teaching aids (e.g. Braille).	4	3	2	1
15. The overall academic standard of the school will suffer.	4	3	2	1

16. My performance as a classroom teacher will decline.	4	3	2	1
17. The academic achievement of students without disabilities will be affected.	4	3	2	1
18. It will be difficult to give equal attention to all students in an inclusive classroom.	4	3	2	1
19. I will not be able to cope with students with a disability who do not have adequate self-care skills (e.g. students who are not toilet trained).	4	3	2	1
20. There will be inadequate administrative support to implement the inclusive education program.	4	3	2	1
21. The inclusion of a student with a disability in my class will lead to a higher degree of anxiety and stress in me.	4	3	2	1

PART C

Teaching Efficacy in Inclusive Practices scale

(Sharma, Loreman & Forlin, 2012)

This survey is designed to help us understand the nature of factors influencing the success of routine classroom activities in creating an inclusive classroom environment. Please circle the number that best represents your opinion about each of the statements. Please attempt to answer each question

1 Strongly Disagree	2 Disagree	3 Disagree Somewhat	4 Agree Somewhat	5 Agree	6 Strongly agree

SD D DS AS A SA

1	I can use a variety of assessment strategies (for example, portfolio assessment, modified tests, performance-based assessment, etc.).	1 2 3 4 5 6
2	I am able to provide an alternate explanation or example when students are confused.	1 2 3 4 5 6
3	I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.	1 2 3 4 5 6
4	I can accurately gauge student comprehension of what I have taught.	1 2 3 4 5 6
5	I can provide appropriate challenges for very capable students.	1 2 3 4 5 6
6	I am confident in my ability to get students to work together *in pairs or in small groups*.	1 2 3 4 5 6
7	I am confident in my ability to prevent disruptive behaviour in the classroom before it occurs.	1 2 3 4 5 6
8	I can control disruptive behaviour in the classroom.	1 2 3 4 5 6
9	I am able to calm a student who is disruptive or noisy.	1 2 3 4 5 6
10	I am able to get children to follow classroom rules.	1 2 3 4 5 6
11	I am confident when dealing with students who are physically aggressive.	1 2 3 4 5 6
12	I can make my expectations clear about student behaviour.	1 2 3 4 5 6
13	I can assist families in helping their children do well in school.	1 2 3 4 5 6

14	I can improve the learning of a student who is failing.	1 2 3 4 5 6
15	I am able to work jointly with other professionals and staff (e.g. aides, other teachers) to teach students with disabilities in the classroom.	1 2 3 4 5 6
16	I am confident in my ability to get parents involved in school activities of their children with disabilities.	1 2 3 4 5 6
17	I can collaborate with other professionals (e.g itinerant teachers or speech pathologists) in designing educational plans for students with disabilities.	1 2 3 4 5 6
18	I am confident in informing others who know little about laws and policies relating to the inclusion of students with disabilities.	1 2 3 4 5 6

PART D

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you. Please circle your response.

1.	It is sometimes hard for me to go on with my work if I am not encouraged.	TRUE	FALSE
2.	I sometimes feel resentful when I don't get my own way.	TRUE	FALSE
3.	On a few occaisions, I have given up doing something because I thought too little of my ability.	TRUE	FALSE
4.	There have been times when I felt like rebelling against people in authority even though I knew they were right.	TRUE	FALSE
5.	No matter who I'm talking to, I'm always a good listener.	TRUE	FALSE
6.	There have been occaisions when I took advantage of someone.	TRUE	FALSE
7.	I'm always willing to admit it when I make a mistake.	TRUE	FALSE
8.	I sometimes try to get even, rather than forgive and forget.	TRUE	FALSE
9.	I am always courteous, even to people who are disagreeable.	TRUE	FALSE
10.	I have never been irked when people expressed ideas very different from my own.	TRUE	FALSE
11.	There have been times when I was quite jealous of the good fortune of others.	TRUE	FALSE
12.	I am sometimes irritated by people who ask favours of me.	TRUE	FALSE
13.	I have never deliberately said something that hurt someone's feelings.	TRUE	FALSE

Thank you for your time and effort.
You can be assured that all information will be kept confidential.

Appendix C

Ethics Approval

MONASH University

Monash University Human Research Ethics Committee

Approval Certificate

This is to certify that the project below was considered by the Monash University Human Research Ethics Committee. The Committee was satisfied that the proposal meets the requirements of the *National Statement on Ethical Conduct in Human Research* and has granted approval.

Project ID: 9223
Project Title: Investigating Preservice and Inservice Teachers' Enactment of Inclusive Practices
Chief Investigator: Professor Umesh Sharma
Approval Date: 03/07/2018
Expiry Date: 03/07/2023

Terms of approval - failure to comply with the terms below is in breach of your approval and the *Australian Code for the Responsible Conduct of Research*.

1. The Chief Investigator is responsible for ensuring that permission letters are obtained, if relevant, before any data collection can occur at the specified organisation.
2. Approval is only valid whilst you hold a position at Monash University.
3. It is responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash letterhead and the Monash University complaints clause must include your project number.
6. Amendments to approved projects including changes to personnel must not commence without written approval from MHUREC.
7. Annual Report - continued approval of this project is dependent on the submission of an Annual Report.
8. Final Report - should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected completion date.
9. Monitoring - project may be subject to an audit or any other form of monitoring by MUHREC at any time.
10. Retention and storage of data - The Chief Investigator is responsible for the storage and retention of the original data pertaining to the project for a minimum period of five years.

Kind Regards,

Professor Nip Thomson

Chair, MUHREC

CC: Dr Christine Grove, Dr Brett Furlonger, Dr Mervi Kaukko, Ms Stella Laletas, Mr Simon Finkelstein, Dr Jahirul Mullick

List of approved documents:

Document Type	File Name	Date	Version
Explanatory Statement	Explanatory Statement	15/03/2018	1
Questionnaires / Surveys	Example Questionnaire	15/03/2018	1
Questionnaires / Surveys	Example Observation Scale (IPCOS)	15/03/2018	1
Consent Form	Consent Form Mentor Teachers Grp	25/05/2018	1
Consent Form	Consent Form PST group	25/05/2018	PST group 1
Explanatory Statement	Explanatory Statement Mentors	25/05/2018	mentor group
Consent Form	Revised_Consent Form for Preservice Teachers	29/06/2018	2
Explanatory Statement	Revised_Explanatory Statement_ Pre-service Teachers	29/06/2018	2
Consent Form	Revised_Consent Form for In Service Teachers_	29/06/2018	2
Explanatory Statement	Revised_Explanatory Statement_In Service Teachers	29/06/2018	2
Questionnaires / Surveys	Revised_ In-service teachers_Questionnaire (1)	29/06/2018	2
Questionnaires / Surveys	Revised_ Pre-service teachers_Questionnaire (2)	29/06/2018	2
Supporting Documentation	Response to ethics committee_June_2018	29/06/2018	1

Appendix D

Inclusive Practices Classroom Observation Schedule

Inclusive Practices Classroom Observation Scale (IPCOS)

The scale is designed to determine how often an individual teacher employs inclusive classroom practices. It is ideal to observe the same teacher on a number of different occasions (3-5 times) across different days

Directions for observations: Please rate each item based on how often the behaviour was observed using one of the four ratings of Always, Frequently, Sometimes and Infrequently. It is possible that one or more of the behaviours may not be observed during the observations. You can interview the teacher before and after the obser1vation and write your comments based on what the teacher indicates. Do not rate the particular item based on the comments made by the teacher regarding what he or she intended to do but rather rate it only based on what you observe in the class. You should also write comments about each item regarding any important observation you have made in the class to support your rating for a specific item.

Ratings				
Always (4)	Frequently (3)	Sometimes (2)	Infrequently (1)	Not observed (NO)
The behaviour is evident in all activities and forms an integral part of the lesson. *The teacher could not have shown this behaviour any better than what was observed*	The behaviour is evident in a number of activities observed in the class.	The behaviour is evident sometimes but not always, when opportunities are present	The teacher demonstrates no or little implementation of the specified behaviour when opportunities are present	The behaviour is not observed or was not appropriate to the learning task

Rating	A	F	S	I	N
The teacher…					
1. Modifies instruction to meet the diverse learning needs of students. Note: This applies to children with and without special needs.					
2. Plans instruction to address the strengths of students					
3. Relates learning activities to students' personal and family experiences.					
4. Uses a variety of instructional strategies within the learning activity to engage students.					
5. Plans instruction to address interests of students.					
6. Adapts materials and resources to meet diverse learning needs.					
7. Designs learning experiences that connect prior knowledge to new learning.					
8. Plans the use of physical space that allow students to participate in learning activities.					
9. Uses available technology in lessons to enhance student learning when appropriate.					
10. Provides reasonable time allocations to achieve the learning goals and adjusts if students need more or less time.					
11. Selects curricular materials and resources that align with student learning goals.					
12. Provides equal opportunities for students to ask questions.					
13. Provides students with opportunities to interact with peers.					

Rating	A	F	S	I	N
14. Asks effective questions that match instructional goals.					
15. Responds appropriately to students' questions/comments.					
16. Articulates high expectations for students.					
17. Presents clear criteria to students that will be used to measure success in different activities.					
18. Uses a variety of instructional strategies within a lesson that are appropriate to students.					
19. Uses strategies to motivate learners.					
20. Provides regular opportunities for students to collaborate with others.					
21. Uses assessment outcomes to inform instruction. Note: This includes formative assessment occurring during the lesson					
22. Provides frequent and appropriate feedback during class activities.					
23. Creates a safe learning environment where students feel encouraged to take risks.					
24. Has established standards of conduct and they are clear to the students.					
25. Forms small groups of students who differ in ability and interests to work in joint learning activities,.					
26. Makes test accommodations where necessary.					
27. Collaborates with teammates to support student learning.					
28. Regularly shares information and/or best practice with colleagues to improve practice.					
29. Engages with families to share information and strategies to enhance student learning.					
30. Encourages students to reflect on what they have learned.					
31. Uses a variety of assessment strategies to measure student progress. Note: This item includes formative assessment.					
32. Uses a number of strategies to prevent behavioural disruptions in class.					
33. Involves family members in classroom activities.					
34. Makes each student learn according to his/her ability and potential.					
35. Provides alternate explanations or examples when students are confused.					

Additional Notes:

Research Assistant Name:_____

Please indicate which teacher is being observed by writing his/her initials_____

Please indicate which school is the location of the classroom by writing initials_____

Grade_____**Number of Students in Class**____

Appendix E

Kruskal Wallis Tests

Pre-Stage

Gender

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.631	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.086	Retain the null hypothesis.
3	The distribution of TotalCON is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.584	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.109	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Age

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Age Category.	Independent-Samples Kruskal-Wallis Test	.556	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Age Category.	Independent-Samples Kruskal-Wallis Test	.787	Retain the null hypothesis.
3	The distribution of TotalCON is the same across categories of Age Category.	Independent-Samples Kruskal-Wallis Test	.530	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Age Category.	Independent-Samples Kruskal-Wallis Test	.701	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Highest Educational Qualification

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Highest educational qualification.	Independent-Samples Kruskal-Wallis Test	.442	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Highest educational qualification.	Independent-Samples Kruskal-Wallis Test	.529	Retain the null hypothesis.
3	The distribution of TotalCON is the same across categories of Highest educational qualification.	Independent-Samples Kruskal-Wallis Test	.759	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Highest educational qualification.	Independent-Samples Kruskal-Wallis Test	.448	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Grade levels they will teach in the future

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Future grade level participant wishes to work with.	Independent-Samples Kruskal-Wallis Test	.134	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Future grade level participant wishes to work with.	Independent-Samples Kruskal-Wallis Test	.420	Retain the null hypothesis.
3	The distribution of TotalICON is the same across categories of Future grade level participant wishes to work with.	Independent-Samples Kruskal-Wallis Test	.254	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Future grade level participant wishes to work with.	Independent-Samples Kruskal-Wallis Test	.070	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Direct experience with students with disability,

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Direct experience with people with disability.	Independent-Samples Kruskal-Wallis Test	.424	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Direct experience with people with disability.	Independent-Samples Kruskal-Wallis Test	.332	Retain the null hypothesis.
3	The distribution of TotalICON is the same across categories of Direct experience with people with disability.	Independent-Samples Kruskal-Wallis Test	.130	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Direct experience with people with disability.	Independent-Samples Kruskal-Wallis Test	.380	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Relationship with students with disability,

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Nature of Relationship with person/people with disability.	Independent-Samples Kruskal-Wallis Test	.326	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Nature of Relationship with person/people with disability.	Independent-Samples Kruskal-Wallis Test	.189	Retain the null hypothesis.
3	The distribution of TotalICON is the same across categories of Nature of Relationship with person/people with disability.	Independent-Samples Kruskal-Wallis Test	.304	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Nature of Relationship with person/people with disability.	Independent-Samples Kruskal-Wallis Test	.733	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Contact time with students with disability

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Relative amount of time participant has been in contact with people with disability.	Independent-Samples Kruskal-Wallis Test	.091	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Relative amount of time participant has been in contact with people with disability.	Independent-Samples Kruskal-Wallis Test	.010	Retain the null hypothesis.
3	The distribution of TotalICON is the same across categories of Relative amount of time participant has been in contact with people with disability.	Independent-Samples Kruskal-Wallis Test	.761	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Relative amount of time participant has been in contact with people with disability.	Independent-Samples Kruskal-Wallis Test	.508	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .01.

Previous success teaching diverse student populations,

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Degree of success teaching diverse student populations.	Independent-Samples Kruskal-Wallis Test	.422	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Degree of success teaching diverse student populations.	Independent-Samples Kruskal-Wallis Test	.895	Retain the null hypothesis.
3	The distribution of TotalICON is the same across categories of Degree of success teaching diverse student populations.	Independent-Samples Kruskal-Wallis Test	.003	Reject the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Degree of success teaching diverse student populations.	Independent-Samples Kruskal-Wallis Test	.003	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Confidence teaching diverse student populations

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Level of confidence in teaching inclusively.	Independent-Samples Kruskal-Wallis Test	.202	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Level of confidence in teaching inclusively.	Independent-Samples Kruskal-Wallis Test	.220	Retain the null hypothesis.
3	The distribution of TotalICON is the same across categories of Level of confidence in teaching inclusively.	Independent-Samples Kruskal-Wallis Test	.015	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Level of confidence in teaching inclusively.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .01.

Level of education for inclusive education

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Level of Education you have in inclusive education.	Independent-Samples Kruskal-Wallis Test	.791	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Level of Education you have in inclusive education.	Independent-Samples Kruskal-Wallis Test	.689	Retain the null hypothesis.
3	The distribution of TotalCON is the same across categories of Level of Education you have in inclusive education.	Independent-Samples Kruskal-Wallis Test	.545	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Level of Education you have in inclusive education.	Independent-Samples Kruskal-Wallis Test	.194	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Disability status

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Does the participant have a documented disability.	Independent-Samples Kruskal-Wallis Test	.936	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Does the participant have a documented disability.	Independent-Samples Kruskal-Wallis Test	.574	Retain the null hypothesis.
3	The distribution of TotalCON is the same across categories of Does the participant have a documented disability.	Independent-Samples Kruskal-Wallis Test	.767	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Does the participant have a documented disability.	Independent-Samples Kruskal-Wallis Test	.161	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Legislation and policy knowledge

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Level of knowledge of local legislation or policy re I.E.	Independent-Samples Kruskal-Wallis Test	.784	Retain the null hypothesis.
2	The distribution of TotalINT is the same across categories of Level of knowledge of local legislation or policy re I.E.	Independent-Samples Kruskal-Wallis Test	.367	Retain the null hypothesis.
3	The distribution of TotalCON is the same across categories of Level of knowledge of local legislation or policy re I.E.	Independent-Samples Kruskal-Wallis Test	.095	Retain the null hypothesis.
4	The distribution of TotalTEFF is the same across categories of Level of knowledge of local legislation or policy re I.E.	Independent-Samples Kruskal-Wallis Test	.365	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Post-Stage:

Gender

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.025	Reject the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.030	Reject the null hypothesis.
3	The distribution of PostContotal is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.103	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.943	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Age

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Age Category.	Independent-Samples Kruskal-Wallis Test	.844	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Age Category.	Independent-Samples Kruskal-Wallis Test	.515	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Age Category.	Independent-Samples Kruskal-Wallis Test	.924	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Age Category.	Independent-Samples Kruskal-Wallis Test	.320	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Highest Educational Qual

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Highest educational qualification.	Independent-Samples Kruskal-Wallis Test	.139	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Highest educational qualification.	Independent-Samples Kruskal-Wallis Test	.016	Reject the null hypothesis.
3	The distribution of PostContotal is the same across categories of Highest educational qualification.	Independent-Samples Kruskal-Wallis Test	.219	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Highest educational qualification.	Independent-Samples Kruskal-Wallis Test	.361	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Future Grade Level

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Future grade level participant wishes to work with.	Independent-Samples Kruskal-Wallis Test	.910	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Future grade level participant wishes to work with.	Independent-Samples Kruskal-Wallis Test	.638	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Future grade level participant wishes to work with.	Independent-Samples Kruskal-Wallis Test	.817	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Future grade level participant wishes to work with.	Independent-Samples Kruskal-Wallis Test	.138	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Direct Experience

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Direct experience with people with disability.	Independent-Samples Kruskal-Wallis Test	.788	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Direct experience with people with disability.	Independent-Samples Kruskal-Wallis Test	.621	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Direct experience with people with disability.	Independent-Samples Kruskal-Wallis Test	.476	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Direct experience with people with disability.	Independent-Samples Kruskal-Wallis Test	.241	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nature of Relationship

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Nature of Relationship with person/people with disability.	Independent-Samples Kruskal-Wallis Test	.424	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Nature of Relationship with person/people with disability.	Independent-Samples Kruskal-Wallis Test	.453	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Nature of Relationship with person/people with disability.	Independent-Samples Kruskal-Wallis Test	.634	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Nature of Relationship with person/people with disability.	Independent-Samples Kruskal-Wallis Test	.331	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Contact time with students with

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Relative amount of time participant has been in contact with people with disability.	Independent-Samples Kruskal-Wallis Test	.016	**Reject the null hypothesis.**
2	The distribution of PostInttotal is the same across categories of Relative amount of time participant has been in contact with people with disability.	Independent-Samples Kruskal-Wallis Test	.154	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Relative amount of time participant has been in contact with people with disability.	Independent-Samples Kruskal-Wallis Test	.685	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Relative amount of time participant has been in contact with people with disability.	Independent-Samples Kruskal-Wallis Test	.635	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Degree of Success

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Degree of success teaching diverse student populations.	Independent-Samples Kruskal-Wallis Test	.598	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Degree of success teaching diverse student populations.	Independent-Samples Kruskal-Wallis Test	.423	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Degree of success teaching diverse student populations.	Independent-Samples Kruskal-Wallis Test	.762	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Degree of success teaching diverse student populations.	Independent-Samples Kruskal-Wallis Test	.619	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Level of Confidence

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Level of confidence in teaching inclusively.	Independent-Samples Kruskal-Wallis Test	.790	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Level of confidence in teaching inclusively.	Independent-Samples Kruskal-Wallis Test	.333	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Level of confidence in teaching inclusively.	Independent-Samples Kruskal-Wallis Test	.381	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Level of confidence in teaching inclusively.	Independent-Samples Kruskal-Wallis Test	.001	**Reject the null hypothesis.**

Asymptotic significances are displayed. The significance level is .05.

Level of Education

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Level of Education you have in inclusive education.	Independent-Samples Kruskal-Wallis Test	.805	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Level of Education you have in inclusive education.	Independent-Samples Kruskal-Wallis Test	.400	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Level of Education you have in inclusive education.	Independent-Samples Kruskal-Wallis Test	.262	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Level of Education you have in inclusive education.	Independent-Samples Kruskal-Wallis Test	.109	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Disability Status

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Does the participant have a documented disability.	Independent-Samples Kruskal-Wallis Test	.254	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Does the participant have a documented disability.	Independent-Samples Kruskal-Wallis Test	.281	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Does the participant have a documented disability.	Independent-Samples Kruskal-Wallis Test	.750	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Does the participant have a documented disability.	Independent-Samples Kruskal-Wallis Test	.093	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Level of Knowledge of Legislation and policy

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of TotalAttScore is the same across categories of Level of knowledge of local legislation or policy re I.E.	Independent-Samples Kruskal-Wallis Test	.762	Retain the null hypothesis.
2	The distribution of PostInttotal is the same across categories of Level of knowledge of local legislation or policy re I.E.	Independent-Samples Kruskal-Wallis Test	.683	Retain the null hypothesis.
3	The distribution of PostContotal is the same across categories of Level of knowledge of local legislation or policy re I.E.	Independent-Samples Kruskal-Wallis Test	.943	Retain the null hypothesis.
4	The distribution of PostTefftotal is the same across categories of Level of knowledge of local legislation or policy re I.E.	Independent-Samples Kruskal-Wallis Test	.290	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.