

Exploring Teacher Efficacy and Inclusive Views

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Disclaimer

This work has been prepared by the author, and is being submitted for the award of Doctorate of Applied Educational Psychology. It contains no material that has been accepted for the award of any other university degree. I hereby declare that the work in this thesis is that of myself alone, except where indicated in the text.

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Overarching Abstract

A systematic literature review carried out to update previous reviews found a positive relationship between self reported efficacy beliefs of teachers and their inclusive views. Results also reported the orientation of the perceived disability (e.g. whether behavioural or physical) to correlate with teachers' self efficacy beliefs.

A middle chapter bridges the systematic literature review and the empirical research. This bridging document provides a political context for the thesis and explores the researcher's interest in the research area. The document explains that the researcher's ontological and epistemological constructivist stance influenced the design of the study and the research questions asked. The influence of certain psychological theories is acknowledged and detailed. Other considerations discussed include ethics and reasons for rejecting alternative data analysis methods.

The empirical study aimed to explore the correlation identified in the systematic literature review between self-efficacy beliefs of teachers and their inclusive views. The study also aimed to identify what teachers say about how their efficacy beliefs might be developed or what prevents such development.

The study utilised 7 staff members from provision that supports Key Stage 3 and 4 pupils identified with social, emotional and behavioural needs (EBD). Staff were interviewed using a semi structured guide and data was analysed using data driven thematic analysis.

Results indicated a complex causal relationship between teacher efficacy and inclusive views. A number of discourses relevant to enhancing and diminishing teacher self efficacy beliefs, such as relationships and the EBD label, were identified. The study illuminated the possible benefit of revisiting social cognitive theory to update its relevance to the role of teaching in today's world.

Table of Contents

Disclaimer.....	i
Acknowledgements.....	iii
Overarching Abstract	iv
Table of Contents	v
List of Figures	vii
List of Tables.....	vii
Systematic Review: What is the relationship between self-reported views on inclusion and teacher efficacy beliefs?	8
Abstract.....	9
Glossary:.....	9
Introduction	10
Inclusive Education	10
A reluctance to include?	10
Factors affecting inclusive views.....	11
Measurement issues	12
Self-efficacy	12
Measurement issues	13
The link between teacher efficacy and inclusive views	14
Summary	15
The purpose of this review.....	16
Method.....	16
Process	16
Step 1: Define the question	16
Step 2: Carry out the literature search	16
Steps 3 and 4: Screen the references and assess the remaining studies against inclusion / exclusion criteria	17
Step 5: Data extraction (mapping).....	18
Step 6: Critical Appraisal	18
Results	19
Step 7: Synthesis of studies.....	19
General characteristics of studies used	19
Research designs of studies used.....	31
Outcomes	32
Step 8: Effects of publication bias and/or internal/external biases	34
Weight of Evidence (WoE)	34
Discussion.....	37
Results of the review.....	37
Limitations of the review	39
Conclusions	39
Future directions	40
Bridging Document	42
Abstract.....	43
Introduction	44
My journey	44
My focus.....	45

Theoretical influences	46
Social Cognitive Theory	46
Symbolic Interactionism.....	46
Ecological Systems Theory	47
Research paradigm.....	47
Ontology and epistemology	47
Social constructivism.....	48
Discourses	49
Methodology.....	49
Sampling.....	50
Process	50
Data Analysis	50
Ethics	51
Critical methodological comments	51
Reflexivity.....	52
Summary	52
Empirical Research: What staff say about the relationship between their inclusive views and efficacy beliefs, and how their efficacy can be developed.	53
Abstract.....	54
Introduction	55
Self-efficacy	55
Teacher Efficacy	56
Development of Personal TE beliefs	56
Dominant challenges in SE literature.....	57
What is understood about the relationship between TE and inclusive views?.....	58
Summary	59
Aims of the current study	60
Method.....	61
Methodology.....	61
Participants	61
Provision.....	61
Research Design	62
Data collection	62
Data Analysis	63
Findings	63
Analysis.....	63
Discussion.....	82
Findings and Implications for Practice and Research	83
Efficacy beliefs and inclusive views.....	83
Development of efficacy beliefs	84
Self-efficacy as domain specific	87
Social factors	88
Summary	89
Limitations to the research	89
Conclusions	90
References.....	92

Appendix A: Weights of Evidence (WoE)	99
Appendix A: EPPI Centre Weight of Evidence (WoE) tools	99
EPPI Centre Weight of Evidence (WoE) tools as used to evaluate Forlin, Cedillo, Romero-Contreras, Fletcher, & Hernandez (2010).....	99
EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Gao & Magner (2011)	103
EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Linlin (2007).....	107
EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Sari, Celikoz, & Secer (2009)	111
EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Weisel & Dror (2006)	115
EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Ahsan, Sharma, & Deppler (2012)	119
Appendix B: Interview Guide	123
Appendix C: Additional details for each paper used in the literature review	124
Appendix D: Consent form	126

List of Figures

<i>Figure 1: thematic map illustrating what participants said about the relationship between their teacher efficacy beliefs and inclusive views.....</i>	65
<i>Figure 2: thematic map illustrating how participants talked about their efficacy beliefs being supported</i>	70
<i>Figure 3: thematic map illustrating how participants talked about development of their efficacy beliefs being prevented.....</i>	78

List of Tables

<i>Table 1: A Table showing the methodological process of the current review</i>	16
<i>Table 2: A Table showing the general characteristics of the studies used in the review</i>	20
<i>Table 3: A Table summarising the results of the WoE analysis.....</i>	35
<i>Table 4: A Table to show exclusion data for sample school.....</i>	62
<i>Table 5: A Table detailing the six phases of the thematic analysis process.....</i>	63
<i>Table 6: A Table showing how participants' talk corresponds to relevant themes and subthemes (Research Question 1).....</i>	65
<i>Table 7: A Table showing themes and subthemes for Research Question 2</i>	67
<i>Table 8: A table showing themes and subthemes for Research Question 2</i>	68
<i>Table 9: A Table showing how participant's talk corresponds to relevant themes and subthemes (Research Question2).....</i>	71
<i>Table 10: A Table showing how participant's talk corresponds to relevant themes (Research Question 3)</i>	79

Systematic Review: What is the relationship between self-reported views on inclusion and teacher efficacy beliefs?

Abstract

Introduction: Inclusion is placed within the context of the British education system. Factors that affect the inclusion of children with perceived special educational needs are outlined and discussed in light of teachers' views about inclusion (Woolfson & Brady, 2008). Teacher efficacy is presented as a factor that can influence the extent to which teachers promote/resist inclusion (Wertheim & Leyser, 2002). Links between teacher efficacy and inclusive views/practices are highlighted and a literature review examining these links in more detail is justified.

Method: Petticrew and Roberts' (2006) method guided this review and is presented in detail, including a brief rationale for inclusion and exclusion criteria.

Results: The systematic literature review results are presented in tabulated form, to include details about each research study used in the review. Effect sizes calculated by the writer are reported as well as correlations provided in the original research papers, if relevant to the focus of the review.

Conclusions: A relationship between teacher efficacy and inclusive views seems apparent, though causality cannot be inferred. Correlations between efficacious beliefs and the nature of the perceived disability are observed.

Considerations and implications: Theoretical and methodological issues are addressed. Further research, particularly qualitative, into the relationship between teacher efficacy and inclusive views, and what teachers might need in order to enhance their efficacious beliefs, is deemed beneficial and useful to the field.

Glossary:

Inclusion: 'schools accommodat[ing] all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions' (UNESCO, 1994, p. 6).

Inclusive views: 'teachers' understandings of, and approaches to, inclusive...teaching' (Southerland & Gess-Newsome, 1999, p. 132).

Special Educational Needs (SEN): perceived 'needs or disabilities that affect [a child's] ability to learn. For example: behavioural/social, reading and writing, understanding things, concentrating, physical needs or impairments' (DfE, 2013b)

Introduction

Inclusive Education

The idea that education is a basic human right is put forth in the SALAMANCA statement (UNESCO, 1994), and supported by a number of researchers (e.g. Ainscow & Sandhill, 2010; Bentley, 2008). In this context education is a 'movement against all kinds of exclusion' (Petrou, Angelides, & Leigh, 2009, p. 446). Since the birth of the SALAMANCA statement there has been a 'movement' towards inclusive education (Parasuram, 2006, p. 232). Principles of the statement can since be seen in UK government initiatives (Kershner, 2009).

Educational inclusion benefits all children, irrespective of perceived SEN (Jordan, Schwartz, & McGhie-Richmond, 2009). Benefits include greater understanding of difference and diversity, socialisation for the individual identified with SEN, a (re) conceptualisation of the term *friend(ship)*, and a reduction in stereotypical behaviours and judgements (Bentley, 2008). Yet, young people with perceived SEN continue to be isolated in special education classrooms (Bentley, 2008).

Unsurprisingly then, the development of inclusive education presents one of the biggest challenges to worldwide school systems, in which teachers are pivotal (Ainscow & Sandhill, 2010). The place of teachers within this is clear and illustrated by Linlin (2007) who argues teachers are responsible for providing an inclusive environment for children. It is the beliefs, attitudes and actions of teachers (amongst other factors, explored later) that create this inclusive environment in which children learn (Ainscow & Sandhill, 2010).

A reluctance to include?

At some point in their educational careers many children are marginalised / excluded (Petrou et al., 2009). Specific factors (e.g. teachers' attitudes, lack of local authority

support provided to teachers) have been found to influence exclusive practice (Brownell & Pajares, 1999; Linlin, 2007; Woolfson & Brady, 2008). Dominant school cultures objectify, classify, and label perceived differences between children, making it difficult for them to access a mainstream curriculum (Petrou et al., 2009). Objectifying differences is known as the medical model of disability (Lauder, 1999), opposing the social model, which situates differences as perceived: a result of the way we talk about/conceptualise disability and diversity (Shakespeare & Watson, 2002). The social model is revisited later, paying particular attention to the promotion of inclusion.

Reluctance to include can be because of perceived negative effects inclusion has upon the remaining children. Smith and Green (2004, p. 602) report teachers to have said inclusion 'detract(s)' from the other children's learning. A conflict between meeting the needs of the students with perceived SEN and the 'rest of the class' (p.602) is spoken about. *Teaching* children and *including* them are identified as different (Smith & Green, 2004), implying a difficulty for the two processes to co-exist.

Factors affecting inclusive views

Teacher attitudes and knowledge are key to student success (Wertheim & Leyser, 2002). Negative views and attitudes can lead to reduced expectations (and subsequently fewer learning opportunities), thus beginning a cycle of impaired performance and further lowered expectations, by both teacher and child (Campbell, Gilmore, & Cuskelly, 2003). Demographic variables such as gender and previous teaching experience are shown to impact on inclusive attitudes (Earle & Forlin, 2007). Lack of training is also a significant factor (Smith & Green, 2004; Wilczenski, 1991). Here, teachers believe their training does not equip them with skills and knowledge they feel to be necessary to teach children with perceived SEN: teachers do not believe themselves capable of teaching these children. A brief discussion about domain specificity/ generalisability is presented later in the introduction about self-efficacy.

Research into inclusive views often examines teacher views and behaviours in isolation: to make sense they should be looked at in context, together (Smith & Green, 2004). This argument is founded in the idea that SEN is a social construct: the school

acts as a social institution in consolidating the construct (Cremin & Thomas, 2005). This is the social model of disability, mentioned earlier. In contrast, the medical model argues the school plays no part: the difficulty exists irrelevant of how we talk about the difficulty.

Measurement issues

Measuring inclusive views has instigated much debate over recent years (eg. Lau, 2005). In particular, defining and conceptualising inclusivity has been problematic (Berlach & Chambers, 2011). This leads to much confusion throughout the literature about exactly what is meant by the word *views* and distinguishing between constructs of *views*, *attitudes* and *concerns* is problematic to say the least. Inclusive views measurement scales have been critiqued for not eliciting views about benefits of including children with perceived SEN in mainstream classrooms (Sharma, Forlin, & Loreman, 2008). Measurement tools have also received attention for not being relevant to teachers in training (Forlin, Sharma, Loreman, & Earle, 2006), although they continue to be used with this group. Research into inclusive views assumes teachers' views to be representative of their classroom practice (Forlin et al., 2006), leaving no room for espoused theory. Also, many research projects claim to evaluate teachers' sentiments about inclusion using scales such as the Interactions with People with a Disability Scale (Forlin, Jobling, & Carroll, 2001). Such measures only focus on interactions with people perceived to be disabled and subsequently ignore any possibility that the construct of sentiment could be multi-faceted (Forlin et al., 2006).

Self-efficacy

Self-efficacy (SE), as explained in Bandura's (1977, 1986) social learning theory, is a central cognitive belief that helps regulate behaviours. Bandura (1977, 1986) differentiates between two concepts: response outcome expectations (a belief that behaviour leads to desired outcomes) and perceived SE (a belief in one's capability to accomplish a certain level of performance that is necessary to achieve specified outcomes). Individuals will pursue and engage in activities they believe themselves able to complete competently. Where the capability to perform well is doubted situations are avoided (Brownell & Pajares, 1999). SE therefore not only influences the

choices people make but also the effort and perseverance with which tasks are approached (Brownell & Pajares, 1999).

SE beliefs arise from enactive mastery experiences, vicarious experiences, verbal persuasion, and interpretation of physiological and affective states (Bandura, 1997). Mastery is the belief that one has successfully learned and acquired a certain skill or behaviour; vicarious experiences are exposures to modelling as an efficacy enhancing mechanism; verbal persuasion occurs when peoples' beliefs in their capabilities are reinforced through support from significant others; and physiological and affective states relates to reduction in unpleasant emotions subsequently leading to enhanced feelings of capability (Bandura, 1997).

SE is domain specific (Bandura, 1997). Teacher SE, more commonly referred to as teacher efficacy (TE), is the belief that as a teacher you can affect student outcomes in a positive manner (Brownell & Pajares, 1999). TE influences classroom management and teaching strategies (Tschannen-Moran & Woolfolk Hoy, 2001). Teachers' abilities to manage their classrooms and their students is one of the conditions necessary for fostering an effective learning environment (Bandura, 1997). Irrespective of challenging external factors, teachers with high efficacy utilise more instructional strategies associated with positive student engagement and high outcomes (Henemen, Kimball, & Milanowski, 2006).

Conflict exists amongst theorists about the specificity of TE domains. Findings from the most recent research seem to be congruent with Tschannen-Moran & Woolfolk Hoy's (2001) factors of classroom management, instruction, and student engagement (Gibbs & Powell, 2012; Klassen et al., 2009; Tschannen-Moran & Woolfolk Hoy, 2001).

Measurement issues

Instruments used to measure SE have received criticism (Pajares, 1996; Tschannen-Moran & Woolfolk Hoy, 2001). Operationalising psychological constructs is one of the areas seen as problematic (Woolfolk Hoy, Tschannen-Moran, & Hoy, 1998) as well as not following guidance provided by expert efficacy theorists, and implementing tools that lack congruence with SE theory (Woolfolk Hoy et al., 1998). Such assessments are

argued to be insensitive to context, subsequently minimising the significance of teachers' beliefs on instructional practices and student outcomes (Brownell & Pajares, 1999).

One particular tool has received much critical attention: the Teacher Efficacy Scale (TES) (Gibson & Dembo, 1984). Results of studies using the TES have been called 'ambiguous' (Klassen, Tze, Betts, & Gordon, 2011, p. 37) and 'inconsistent' (Woolfolk Hoy et al., 1998, p. 213). The TES is also argued to measure locus of control instead of TE (Klassen et al., 2011). Considering locus of control and TE bear no resemblance to one another (Woolfolk Hoy et al., 1998) doubt is placed over research utilising the TES: findings from 'studies using flawed measures can lead to misleading conclusions' (Klassen et al., 2011, p. 37). Contrastingly, the TSES (Teacher Sense of Efficacy Scale, Tschannen-Moran & Woolfolk Hoy, 2001) has been complimented for drawing explicitly on Bandura's SE work (Klassen et al., 2011), displaying excellent validity across cultures (Klassen et al., 2009), and good reliability and subscale intercorrelations (Duffin, French, & Patrick, 2012).

The link between teacher efficacy and inclusive views

Research highlights a relationship between TE and inclusive views (eg. Wertheim & Leyser, 2002; Woolfson & Brady, 2008, 2009). When inclusive *attitudes* and *concerns* are measured separately, *concerns* show a stronger relationship with TE (Forlin & Sin, 2010). Some research points to TE being the most influential factor in determining the extent to which teachers promote inclusion (Meijer & Foster, 1998; Soodak & Podell, 1993).

Teacher attitudes therefore seem pivotal to successful inclusion (Barco, 2007).

Teachers with positive efficacious beliefs may be more likely to engage in behaviours that indicate attitudes promotional of inclusion: work differentiation and trialling behaviour management techniques, for instance (Wertheim & Leyser, 2002). Primary and secondary teachers with high TE feel able to adapt their teaching style to effectively teach 'learning disabled' students (Barco, 2007, p. iii), though no links are made between any specific dimensions of TE and inclusive views. Woolfson and Brady

(2009) argue teachers with high TE consider themselves effective at making a difference and believe causes of learners' difficulties are oriented around the delivery of the curriculum / teaching methods. These teachers subsequently believe they can influence the learning capacity of the child and are more likely to promote inclusion than those found to possess lower TE beliefs. Interestingly, few studies investigate what teachers think they might require in order for their efficacy beliefs to be enhanced (Brownell & Pajares, 1999; Leyser, Zeiger, & Romi, 2011).

Another proposed reason for non inclusive behaviours is lack of opportunity (Woolfson & Brady, 2009). Over time teachers build experiences and a subsequent skill base that equip them to teach children with perceived SEN. Teachers with more years of experience often feel they have taught enough children considered SEN to have mastered certain skills and be able to 'reach them' (Barco, 2007, p. 178). This notion is supported by Campbell et al. (2003) and Parasuram (2006) who found the greater the extent of teachers' previous experiences with SEN children, the more positive their TE and inclusive views.

The category of children's needs also appears to affect teachers' inclusive views. Teachers feel less inclined to include children with physical needs compared with intellectual, and express most concern about including children with behavioural needs (Forlin, Douglas, & Hattie, 1996; Forlin et al., 2006). Soodak, Podell, and Lehman's (1998) research supports this: teachers feel less favourable about including students with intellectual and / or behavioural needs than those with physical needs.

Summary

A strong body of research links TE and inclusive views (Woolfson & Brady, 2008). The implications of TE upon inclusive views are potentially profound (Leyser et al., 2011). The research reviewed thus far agrees with a notion supported by a number of researchers (eg. Brownell & Pajares, 1999): if teachers can become more efficacious about teaching students with SEN, their willingness to include these children in their classrooms is increased.

The purpose of this review

The 'pace' at which research into the field of TE is being conducted has recently increased (Klassen et al., 2011, p. 38). Some of this research highlights a relationship between inclusive views and TE. The purpose of the current piece is to update previous reviews (eg. Brownell & Pajares, 1999; Smith & Green, 2004; Wertheim & Leyser, 2002), helping to substantiate the nature of the relationship between TE and inclusive views. The question guiding this review is:

What is the relationship between self-reported views on inclusion and teacher efficacy beliefs?

Method

Petticrew and Roberts' (2006) method was used for this review. Details appear below in Table 1.

Table 1: A Table showing the methodological process of the current review

1	Define the question
2	Carry out literature search
3	Screen the references
4	Assess the remaining studies against inclusion / exclusion criteria
5	Data extraction
6	Critical appraisal
7	Synthesis of studies
8	Consider the effects of publication bias and other internal / external biases

Process

Step 1: Define the question

The question, detailed above, was set.

Step 2: Carry out the literature search

A variety of terms, identified using existing literature and a thesaurus were trialled before the following three were decided upon (use of * allows for flexibility with word endings):

effic*
education
inclus*

The following databases were used: MedLine, Ovid, Scopus, PsychInfo, Web of Knowledge, CSA Illumina, EBSCO, FirstSearch, British Education Index, ERIC, and the Australian Education Index.

All searches using the final terms were conducted between September 22nd and October 28th 2011, as well as 7th January 2013. The latter search was carried out to ensure inclusion of the most recent relevant research following an interruption to the writer's studies. The searches resulted in 1125 possible candidate papers, many of which were duplicates or irrelevant (medical in nature, for instance) and so were discarded.

Steps 3 and 4: Screen the references and assess the remaining studies against inclusion / exclusion criteria

The initial screening phase involved reading abstracts from relevant studies. Based on criteria presented by Petticrew and Roberts (2006), the following criteria were used to facilitate this screening stage:

Exclusion criteria:

- Qualitative / mixed methods studies

Inclusion criteria:

- Only teachers and student teachers
- Schools (mainstream or specialist provision) or teacher training institutes. Any countries
- Studies that did not use data collected as part of other research
- Studies that measured SE and inclusive views via separate scales, because these were the key terms
- Studies published in English
- Studies that were published post 2004 in order to update the most recent reviews found

These inclusion criteria refer to a set of conditions that studies needed to meet to be included in the review (Petticrew & Roberts, 2006). After assessing the abstracts using the inclusion criteria 26 papers remained.

Then, a more in depth screening process was carried out. Full articles were reviewed and the final selection was made as according to additional criteria:

Exclusion criteria:

- Studies that discriminated particular aspects of SEN (eg. Autism)

6 papers remained for use in the systematic review.

Step 5: Data extraction (mapping)

The 6 papers were analysed against the research question and study aims, design, method of analysis, data collection and outcomes. This information was synthesised and is displayed in Table 2. The following information was gathered:

- Participants: numbers, ages, gender; if / how they were grouped
- Context: geographical location, type of provision
- Methods/sources of evidence: details about measures used and the reliability and validity of these tools
- Outcomes: outcomes measured, p levels (to determine the significance of the test results), correlations (the nature of the review question requires r)

The author did not calculate any effect sizes herself. The correlation coefficient, r , is a measure of the size of the effect, reported in 5 of the 6 studies. The sixth study reported only means and standard deviations, which cannot be used to calculate r .

Step 6: Critical Appraisal

The quality of the studies was assessed using the EPPI- Centre Weight of Evidence tool (Gough, 2007). Tables detailing this process can be seen in Appendix A and Table 3.

Weights of evidence are based on:

- A. Coherence and integrity of the evidence

- B. Appropriateness of research design and analysis for answering the review question
- C. Relevance of the study focus (sample, measures, design, or other indicators of the study focus) to the review question
- D. An overall weight, considering the above 3 points

(Gough, 2007)

Results

Step 7: Synthesis of studies

General characteristics of studies used

General characteristics of the 6 studies used in the review can be seen in Table 2 overleaf. Additional information about the participants, how groups in each study were defined, and the sampling methods used, is available in the paragraphs following table 2, as well as Appendix C.

Table 2: A Table showing the general characteristics of the studies used in the review

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
Linlin (2007) Investigation into parents' and teachers' beliefs about preschool inclusion in China	Inclusive beliefs Teacher efficacy	<u>For inclusive views</u> My Thinking about Inclusion (MTAI) (Stoiber et al., 1998) Internal consistency of scores within acceptable ranges (Stoiber et al., 1998) (core perspectives $\alpha = .77$; expected outcomes $\alpha = .69$; classroom practices $\alpha = .69$; MTAI $\alpha = .86$) Subscale to scale correlations ranged from .73 to .91 (moderate to high association).	Both groups completed MTAI, demographic survey and Impact of Inclusion on Children with Disabilities (Raffery and Griffin, 2005). Teachers completed	Exploratory factor analysis and confirmatory factor analysis revealed: Teacher's Sense of Efficacy Scale indicated 3 factors;	Non significant correlation between teaching efficacy and overall inclusive beliefs ($r = .1, ns$) Positive correlation between positive inclusive beliefs and teaching efficacy ($r = .5, p < .01$). Non significant correlation between	Goodenough (1981) personal VS public level beliefs Domain general

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
		<p>Cronbach's Alpha= .69</p> <p><u>For self-efficacy</u></p> <p>Teacher Sense of Efficacy Scale (TSES) (Tschannen-Moran and Woolfolk, 2001). Internal consistency of scores on measure were high (SE α=.81; IS α=.86; CM α=.86; TSES α=.90) (Tschannen-Moran and Woolfolk Hoy, 2001).</p> <p>Demographic questionnaire administered</p>	<p>TSES.</p> <p>All surveys completed online.</p>	<p>Efficacy in student engagement, instructional strategies and classroom management</p> <p>My Thinking about Inclusion included 2 factors; Positive Beliefs and Negative Beliefs about</p>	<p>teaching efficacy and negative inclusive beliefs (r=.09,ns).</p>	

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
				Inclusion.		
Weisel & Dror (2006) Examination of the effects of school organisational and educational climate, and a teacher's sense of efficacy, on general education teachers' attitudes	Teacher efficacy Inclusive attitudes School climate	<u>For inclusive views</u> Based partially on the Teacher's Attitudes Towards Inclusion questionnaire by Schechtman et al. (1993). <u>For self-efficacy</u> Teacher's Sense of Efficacy Questionnaire adapted from Teacher Efficacy Scale (Gibson & Dembo, 1984). Translated to Hebrew by Ayalon-Maor (1994). Efficacy related to self-efficacy (internal	All surveys were completed by the entire group	Not examined for efficacy measure. Results from factor analyses carried out by Woolfolk and Hoy (1990) and Ayalon-Maor (1994) quoted: Self efficacy (23.7% of overall	Positive correlation between <i>self-efficacy and attitudes towards inclusion</i> ($r=.37$, $p<0.05$) Positive significant correlation between <i>teaching efficacy and inclusive views</i> ($r=.67$, $p<0.05$) Multiple regression analysis shows contribution of school climate and efficacy to variance of attitudes	Bandura self efficacy. Domain specific

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
towards inclusion.		consistency co-efficients 0.86) and teacher-efficacy (internal consistency co-efficients 0.77) Demographic questionnaire administered		variance) and teacher efficacy (13.5% of overall variance). For attitudes measure only one factor explaining 48% variance was found, so 5 items discarded. 31 Qs instead of 36	towards inclusion: Sense of efficacy contributed 24% to variance of attitudes towards inclusion. School climate = 23%	
Forlin et al	Inclusive	<u>For inclusive views</u>	Both surveys	None tested	No correlation	None provided

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
(2010) Investigating the perceptions of pre-service teachers regarding their dispositions towards inclusion and their self-efficacy in being prepared to engage as	attitudes Teacher efficacy	Sentiments, Attitudes and Concerns about Inclusive Education (SACIE) scale (revised version of Loreman et al's., 2007). Cronbach's Alpha whole scale: $\alpha = 0.72$ Subscales: Sentiments: $\alpha = 0.65$ Attitudes: $\alpha = 0.77$ Concerns: $\alpha = 0.32$ <u>For self-efficacy</u> Teacher Efficacy for Inclusive Practices scale (Sharma, Loreman and Forlin, 2012). Subscales:	were completed by both groups completed both surveys		coefficients reported by the researchers	in study introduction; it focuses only on inclusive education in Mexico. Authors' usage of the TEIP indicates a domain specific view

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
inclusive practitioner s.		<p>Efficacy to use inclusive instructions ($\alpha = 0.78$)</p> <p>Efficacy in managing behaviour ($\alpha = 0.86$)</p> <p>Efficacy in collaboration ($\alpha = 0.87$)</p> <p>Both instruments translated by 2 of the bilingual authors and then back-translated by a third author.</p>				
Sari et al.(2009) Analysis of pre school teachers' and	Teacher efficacy Inclusive attitudes	<p><u>For inclusive views</u></p> <p>Opinions Relative to Mainstreaming Scale (Antonak and Larrivee, 1995) adapted to Turkish by Kircaali-Iftar (1997)</p> <p>Cronbach's alpha 0.80</p>	Both groups completed both surveys	None calculated	<p>Positive correlation between teachers' self efficacy and their attitudes towards inclusion ($r = .07, ns$)</p> <p>Multiple regression</p>	<p>Bandura 's self efficacy theory</p> <p>Domain specific</p>

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
<p>student teachers' attitudes to inclusion and their self-efficacy</p>		<p><u>For self-efficacy</u> Teacher Self-Efficacy Perception Scale (Tschannen-Moran and Woolfolk, 2001) adapted to Turkish by Capa, Cakiroglu and Sarikaya (2005) Efficacy related to guidance, teaching and classroom management Cronbach's alpha 0.93</p>			<p>analysis about extent teacher self efficacy predicts attitudes towards inclusion was non-significant for all 3 subscales: <i>Guidance= (r=.064, p<0.05).</i> <i>Teaching= (r=.17, p<0.05).</i> <i>Classroom management= (r=.1,ns).</i></p> <p>Multiple regression analysis about extent student teacher self efficacy predicts</p>	

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
					<p>attitudes towards inclusion was non-significant for all 3 subscales:</p> <p><i>Guidance= (r=.1, ns)</i></p> <p><i>Teaching= (r=0.87, ns)</i></p> <p><i>Classroom management= (r=0.73,ns)</i></p> <p><i>No correlation between efficacy and inclusive attitudes for student teachers is reported</i></p>	
Gao & Magner (2011)	Attitudes towards inclusion	<u>For inclusive views</u> Attitudes Toward Inclusive Education Scale (Wilczenski, 1995).	All surveys were completed by the group	None calculated	Positive correlations found between PTE and all inclusive attitude subscales:	Bandura's self efficacy theory Domain specific

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
Enhancing pre-service teachers sense of efficacy and attitudes toward school diversity through preparation	Teacher efficacy Beliefs about diversity	Adequate reliability and validity established (Wilczenski, 1995) <u>For self-efficacy</u> Teacher Efficacy Scale (Gibson and Dembo, 1984) 2 independent subscales: general teaching efficacy (GTE) and personal teaching efficacy (PTE) Cronbach's alpha : PTE: 0.80 GTE: 0.65 Demographic questionnaire administered			<i>Physical</i> ($r=.180, p<0.05$) <i>Social</i> ($r=.289, p<0.01$) <i>Academic</i> ($r=.288, p<0.01$) <i>Behavioural</i> ($r=.195, p<0.05$) Positive correlations found between GTE and all inclusive attitude subscales: <i>Physical</i> ($r=.307, p<0.01$) <i>Social</i> ($r=.372, p<0.01$) <i>Academic</i> ($r=.398, p<0.01$) <i>Behavioural</i>	

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
					<i>(r=.236,p<0.01)</i>	
Ahsan et al. (2012) To reveal pre-service teachers' preparedness for inclusive education in Bangladesh	Teacher efficacy Inclusive attitudes and concerns Concerns about inclusion	<u>For inclusive views</u> <i>Concerns and attitudes</i> subscales from the SACIE (Loreman, Sharma, & Forlin, 2007) Cronbach's alpha: Concerns = 0.63 Attitudes = 0.60 <u>For self-efficacy</u> TEIP (Sharma, Loreman, & Forlin, 2011) Reliability = 0.89 Cronbach's alpha = 0.85	All surveys were completed by all participants	Not tested	Significant positive correlation found between <i>teaching efficacy and concerns about inclusion</i> ($r=.24, p<0.01$). Items reverse coded so figures indicate strong correlation). A significant positive correlation was found between pre-service teachers' perceived	Bandura's self efficacy theory Domain specific

Article and purpose	Dependent variables	Instruments	Procedure	Factorial structure	Results/ effect size	Self-efficacy theoretical framework
		Alpha coefficients: Efficacy to use inclusive instructions = 0.93 Efficacy in collaboration = 0.85 Efficacy in managing behaviour = 0.85 Instruments translated to Bangli Demographic questionnaire administered			<i>teaching-efficacy and attitude scores. (r=.196, p=0.01)</i>	

Research designs of studies used

The majority of participants across all studies were female. 4 of the 6 studies reported the number of male / female participants. Sari et al. (2009) presented gender statistics as per group as opposed to overall sample (female participants in group 1=99%; group 2=100%). Ahsan et al. (2012) did not provide this information so I calculated it myself: 61.1% female. Four sets of researchers reported to have gathered demographic data (Ahsan et al., 2012; Gao & Magner, 2011; Linlin, 2007; Weisel & Dror, 2006).

Linlin's (2007) participant groups were parents and teachers. Her sampling method was not specified. Weisel and Dror's (2006) research did not involve separating participants into groups: they were all qualified teachers. A random sampling method was used. Forlin et al's (2010) participants were split into groups: teachers in training, 75% of whom were studying to teach mainstream children, and 25% who were studying a special education programme. Forlin et al.(2010) used a convenience sample. Sari et al. (2009) study used pre-school teachers; some qualified and some still in training. Statistics for this information are not provided. Sari et al.(2009) used a cluster sample. Gao and Magner (2011) participants were teachers in training. No sampling method was detailed in the published study, though sufficient enough information was provided to allow me to judge the process as stratified sampling. Ahsan et al.(2012) did not separate participants into groups. The sampling method was not specified.

Whether teachers were fully qualified or still in training, and areas they were trained to teach were detailed in all six studies. Studies were conducted in different countries, covering three continents. All studies, apart from Gao and Magner (2011), used translated measurement tools. Two sets of authors carried out translations themselves (Ahsan et al., 2012; Forlin et al., 2010). (Linlin, 2007) provided no details about the translation process. The remaining studies (Sari et al., 2009; Weisel & Dror, 2006) used previous translations.

Two articles (Ahsan et al., 2012; Linlin, 2007) provided no sampling information. (Gao & Magner, 2011) did not explicitly identify a sampling method used but provided

sufficient information for the review author to interpret and conclude stratified sampling.

Diversity in measurement tools used produced diversity in the conceptualisation of variables manipulated. Measurement tools in two studies (Linlin, 2007; Sari et al., 2009) used the term inclusive *views*; in the remaining four (Ahsan et al., 2012; Forlin et al., 2010; Gao & Magner, 2011; Weisel & Dror, 2006) it was inclusive *attitudes*. Ahsan et al.(2012) utilised a separate subscale to measure teachers' inclusive *concerns* as well as their *attitudes*. Additional dependent variables were measured in two studies: school climate (Weisel & Dror, 2006) and beliefs about diversity (Gao & Magner, 2011).

Gao and Magner (2011) investigated the effects of an intervention but did not use a pre and post test design. Differences between participants' scores at different stages of the intervention were examined to determine if the intervention affected variables over time, but with no pre test scores or control group. The research did not include a follow up study that might have helped determine differences in the same participants' scores after the intervention had ended. This not only lacks rigour but also poses threats to internal validity (maturation) and external validity (regarding generalisability of findings) (Cole, 2008).

Factorial structures for TE were tested in one study (Linlin, 2007), which revealed the following: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. This author also found two factors for inclusive views: positive and negative views. Weisel and Dror (2006) revealed only one factor for inclusive views: attitudes.

Apart from Linlin (2007) and Forlin et al.(2010) all research was couched within Bandura's (1997) SE theory. Linlin's (2007) research was guided by Goodenough's (1981) personal VS public level beliefs, conceptualised by Linlin (2007) as SE. Forlin et al.(2010) provided no theoretical framework.

Outcomes

Two of the studies reviewed showed a positive relationship between overall TE and overall inclusive views:

Weisel and Dror (2006): $r=.37$, $p<0.05$ (inclusive attitudes); $r=.67$, $p<0.05$ (inclusive views)

Ahsan et al.(2012): $r=.24$, $p<0.01$

Of the remaining four studies reviewed, Linlin (2007) correlation was not significant ($r=.10$, ns), and neither was Sari et al.'s (2009): ($r=.07$, ns) for teachers. It should be noted here that in the published article, Sari et al.(2009) claim their correlation to be significant. No p level is reported, however. When checked against a table of critical values, the reviewer found it to be non- significant. Sari et al.(2009) also reported no correlation for student teachers. Gao and Magner (2011) reported no correlation for *overall* TE: the construct was separated into general teaching efficacy (GTE) and personal teaching efficacy (PTE) from the outset. Similarly, inclusive views were split by nature of SEN (i.e. social / behavioural / academic / physical). Forlin et al.(2010) report no correlations.

Additionally, Linlin (2007) noted a correlation between TE and positive inclusive *attitudes* ($r=.5$, $p<0.05$) but no relationship between TE and negative inclusive *views* was found ($r=.09$, $p>0.05$).

One study provided correlations between the nature of the disability and TE. Of the four categories utilised in the scale used by (Gao & Magner, 2011) inclusive views about academic and social needs correlated most highly with PTE and GTE.

Two papers investigated the relationship between TE dimension and inclusive views. Both sets of authors (Ahsan et al., 2012; Forlin et al., 2010) reported only means and standard deviations in the published articles. It is not possible to calculate correlation coefficients using this limited data. Had the authors calculated correlations and reported them in their articles, additional information to include in this literature review would have been available. Both Ahsan et al's (2012) study and that of Forlin et al.(2010) could have provided data that would have allowed the present reviewer to evaluate which TE dimensions (managing behaviour, using inclusive instructions, or

collaborating with other professionals) correlate the strongest with either *concerns* and / or *attitudes* about inclusion.

Multiple regression analyses revealed mixed findings. According to Weisel & Dror (2006), a sense of efficacy was found to contribute to 24% of the variance in inclusive views, slightly higher than school climate, which was reported to contribute to 23% of the variance. Both TE and the more general construct of SE were found to contribute significantly to the variance of inclusive views (13.5% and 23.7% retrospectively); interestingly the latter more than the former. Sari et al.(2009) found no significance of TE as a predictor of inclusive views.

Step 8: Effects of publication bias and/or internal/external biases

Weight of Evidence (WoE)

Using the criteria specified in the WoE tool (Gough, 2007) each study was attributed weights of evidence regarding perceived quality. A summary appears below in Table 3, with a more detailed description in Appendix A. Weight was given to information about validity/reliability and research (design) rationale.

Clearly many of these elements are relative, for example trustworthiness. Evaluation was therefore difficult and subjective. A different researcher evaluating the same 6 papers may have weighted factors differently. It was based upon only the information provided in each article, which is information chosen for inclusion by each set of researchers. Bias is therefore apparent.

Table 3: A Table summarising the results of the WoE analysis

Study	A: trustworthiness of study in answering study question	B: appropriateness of research design and analysis for answering question	C: relevance of particular focus of study for answering this systematic review	D: overall weight of evidence
Sari et al.(2009)	Moderately trusted	High	Medium	Medium
Gao & Magner (2011)	Moderately trusted	Low	Low	Low/medium
Forlin et al.(2010)	Moderately trusted	Low	Low	Low
Linlin (2007)	Trusted	High	Medium	Medium/high
Ahsan et al.(2012)	Moderately trusted	High	Medium	Medium/high
Weisel & Dror (2006)	Moderately trusted	Medium	Medium	Medium

Table 3 reveals two studies (Ahsan et al., 2012; Linlin, 2007) provided a medium/high overall weight of evidence, primarily because at least one of the research questions asked in each paper involved identifying a relationship between efficacy and inclusive views. Queries arose through the evaluation of the papers: purely high weights of evidence were not deemed appropriate.

Linlin (2007) conducted analyses about underpinning TE structures, adding weight to the validity of her study. Her research is an unpublished thesis, meaning the possibility of publication bias (Thornton & Lee, 2000) is void. The review author maintained reservations about translation of measurement tools, and how participants were sampled (affecting external validity).

For Ahsan et al's (2012) article, construct validity was questioned because no factor analyses were carried out, and only one limitation to their research was noted.

Two studies (Sari et al., 2009; Weisel & Dror, 2006) were seen as providing medium weights of evidence. Examining the relationship between TE and inclusive attitudes was the main aim of these studies but reliability and / or validity were questioned. These queries are outlined, each study in turn. Sari et al.(2009) relied on earlier translations of surveys and did not test the construct validity of the efficacy measure used. Also, the authors reported the correlation as significant but the reviewer found it to be non-significant. Turning to Weisel & Dror (2006), one of the measurement tools used (TES, Gibson & Dembo, 1984) has received a substantial amount of criticism; more recent tools are argued to measure TE more accurately (Woolfolk Hoy et al., 1998).

One study (Gao & Magner, 2011) was weighted overall as low/medium. Gao and Magner (2011) examined the relationship between TE and inclusive attitudes but this was not their main aim. No attempts were made to enhance construct validity or internal validity: the study lacked a pre/post design or the use of a control group. Additionally, explicit sampling information was absent, questioning external validity, and reliability of measurement tools was not assessed.

One study (Forlin et al., 2010) was seen as exhibiting low quality. The aim of the research differed from that of this review (i.e. it was not a correlation between efficacy and inclusive attitudes) and no statistics of relevance to the current review were reported. Additionally, there was no conceptual framework for SE detailed and no attempts to test the construct validity or enhance internal validity were evidenced. The authors failed to recognise any limitations to their research.

The comparison of studies was challenging. A variety of instruments were used across studies to measure the same features. As table 2 highlights, the only scale to be utilised in full by more than one set of researchers (Linlin, 2007; Sari et al., 2009) was the TSES Perception Scale (Tschannen-Moran & Woolfolk Hoy, 2001). The TES (Gibson & Dembo, 1984) was used in full by Gao & Magner (2011) and in part by Weisel and Dror (2006), who only used one questionnaire from the full scale. They reported the validity of the full scale to have been tested by both Woolfolk & Hoy (1990) and

Ayalon- Maor (1994) via factor analysis but no scores for the questionnaire utilised were provided.

Discussion

Results of the review

Despite not reporting sufficient data to determine an overall correlation between efficacy and inclusive views, Gao and Magner's (2011) and Forlin et al's (2010) research both fit the inclusion criteria set for the current review. Of the four articles that did report correlations, two revealed the relationship between TE and inclusive views to be positive (Ahsan et al., 2012; Weisel & Dror, 2006). This is congruent with previous research (Leyser et al., 2011; Meijer & Foster, 1998; Soodak & Podell, 1993; Wertheim & Leyser, 2002).

When considered alongside other factors, such as seniority, autonomy, and workload, TE possessed the strongest correlation with teachers' inclusive views. However, only two studies (Forlin et al., 2010; Weisel & Dror, 2006) compared efficacy to other variables, and results from a third study were not significant (Linlin, 2007).

Nevertheless, when interpreted alongside previous research findings (Brownell & Pajares, 1999; Leyser et al., 2011) inclusive views did seem to correlate most strongly with efficacy beliefs.

Results about managing behaviour were varied. This variable was only controlled in two studies (Gao and Magner, 2011; Sari et al, 2009) and Gao and Magner (2011) conceptualised it as classroom management. Variable results could be due to the participants being student teachers: near the beginning of their training, teachers do not distinguish between the dimensions of TE (Duffin et al., 2012). Thus, the usefulness of separating the underlying factors of TE for student teachers seems questionable.

This review provides no details about the relationship between individual factors of TE and inclusive views, but does support previous research, which found the underpinning factors of TE dimensions to be behaviour / classroom management, and use of instructions (Tschannen-Moran & Woolfolk Hoy, 2001). Only one of six studies

used in this review carried out screening tests for underlying factors (Linlin, 2007), so these findings cannot be deemed conclusive.

One of the articles reviewed (Linlin, 2007) reported a significant positive correlation between TE and positive teacher attitudes and a non significant correlation between TE and negative inclusive views. This appears to suggest two things: that there is either a fundamental difference between teacher views and attitudes, or TE is a stronger factor when views / attitudes are positive compared to negative. However, another article found only one factor: attitudes. This illuminates the lack of clarity amongst the literature about the difference between inclusive views, attitudes, and concerns. This area requires attention, particularly investigations into the differences between these constructs.

The nature of the perceived SEN (e.g. physical / emotional etc.) was associated with inclusive views and efficacy beliefs. Academic and communication SEN showed the strongest correlation with TE but only one study reported relevant correlations, denying any possibilities of comparability. Earlier research found behavioural SEN to correlate strongest (Forlin et al., 1996; Forlin et al., 2006). Further investigation is required to enhance understanding of the relationship between SEN origin and TE.

The study that used separate subscales for inclusive *concerns* and *attitudes* (Ahsan et al., 2012) found all three dimensions of TE to correlate more strongly with the former. When interpreted alongside Forlin and Sin's (2010) findings, which reported that as teachers' efficacy beliefs increased their concerns about inclusion decreased, it seems plausible that concerns have a more powerful relationship with TE than attitudes.

Results from one study in the review (Weisel & Dror, 2006) confirmed teachers' TE to predict inclusive views. Interestingly, Forlin and Sin (2010) found that as TE increased so did positive attitudes about inclusion, suggesting questions about the causality of this relationship might be interesting and beneficial to inclusion agendas.

Interestingly, this review found student teachers' TE did not predict inclusive views. A possible reason for this could be that, near the beginning of their training, teachers do not distinguish between the dimensions of TE (Duffin et al., 2012). Thus, the

usefulness of separating the underlying factors of TE for student teachers seems questionable. Further exploration is required in order to enhance understanding of any causal relationship between TE and inclusive views, and why this may differ for student teachers. Implications for future research are discussed later.

TE seems complex, with a number of the factors contributing to overall efficacy beliefs. One paper in the review highlighted organisational climate (Weisel & Dror, 2006) as crucial, a notion corroborated by recent research (Gibbs & Powell, 2012), which found teachers with positive feelings about collective efficacy felt more efficacious about their own teaching abilities. More research is needed in order to understand the complexities of TE.

Limitations of the review

A rigorous literature review process was followed, with specific inclusion and exclusion criteria. The author reviewed the literature and evaluated articles independently, undoubtedly biasing selection and weighting of articles and conclusions drawn. Variability exists amongst questions asked by articles reviewed, participants (some used teachers, others used teachers in training), efficacy and inclusive views measures, and data analysis procedures. This affects not only the generalisability of the findings but also the comparability of the studies.

Conclusions

The current review aimed to update previous reviews (Brownell & Pajares, 1999; Smith & Green, 2004; Wertheim & Leyser, 2002), which found teachers who possessed more positive beliefs about their capabilities were more likely to include children perceived as having SEN in their classrooms. The results of the current review appear ambiguous and inconclusive.

The number of papers used in this review was small and the specific questions being asked by the different researchers varied. Not all correlations were strong / significant enough to exclude the possibility of statistical chance. Four articles provided correlations that answered the review question. Of these two were significant and

positive. Two were not significant, and two did not answer the review question. When interpreted alongside previous reviews the results appear to present evidence for a relationship between TE and inclusive views across cultures. It might be interesting to explore the relationship between TE and inclusive views across cultures by searching non-English journals to broaden the cultural / ethnic diversity of articles found. This would also help overcome the problem of publication bias; published research biased toward results that reveal significance (Cole, 2008).

Depending on the scale used, inclusive attitudes seemed to demonstrate a stronger relationship with classroom management / managing behaviour than other teaching dimensions surrounding pupil engagement, collaboration, or efficacy using instructions. Even though only one study tested the underlying structures of TE, the findings agreed with the most recent research (eg. Gibbs & Powell, 2012), i.e. engagement, classroom management, and instructional strategies. Exactly what each of these means to teachers is not known and poses implications for future research, considered later.

The literature review has highlighted a relationship between TE and inclusive views, which supports earlier reviews. This review found only six articles that satisfied inclusion / exclusion criteria: two of these revealed a non- significant correlation and two did not answer the review question. Taken alongside other factors including sample size and variability in research design and questions, the strength attributed to the relationship in this review can be said to be low.

Enhancement in TE seems to positively affect inclusive attitudes and reduce concerns about inclusion. Further exploration into this relationship is required before conclusions about causality can be drawn. The nature of the children's perceived needs appears to influence the extent to which teachers want to include them.

Future directions

None of the studies reviewed investigated TE sources, and if any source(s) influence TE more than others. Research into the sources of efficacy beliefs is missing from present research. One possible avenue for future research would be to correlate the sources

of SE areas with Bandura's (1977) three dimensions of PTE: classroom management, instruction, and student engagement. This could enrich teacher training courses (Woolfolk Hoy et al., 1998). Another consideration for future research could be to investigate enhancing TE as a possible mechanism for increasing inclusive practice, already briefly explored by Klassen et al. (2011). A logical step forward then, would be an exploration into how practitioners (Educational Psychologists, for instance) might help enhance TE. Identifying the conditions that teachers think facilitate TE growth might facilitate this, and help broaden the understanding of how to enhance inclusive practice (Soodak & Podell, 1993). Qualitative research would allow teachers to openly explore their cognitions and feelings, thus helping further the understanding of the TE / inclusive views relationship.

The above future directions could help teachers enhance their efficacy, thus develop the agenda of inclusion, and lead to significant development in, or add weight to, Bandura's (1977) original theory of SE.

Bridging Document

Abstract

This middle piece aims to form a link between the systematic literature review and the empirical research. A story is told about my initial interest in the research area, i.e. teacher efficacy and teacher views about inclusion. This story includes life before the Doctorate. My understanding of my world and how reality and knowledge are defined and created is used to explain my approach to the empirical research and some of the decisions made. These considerations include my method, data analysis, and theoretical influences, which inevitably implicated the interpretation of my data and the reported findings. A critical lens is used to focus a discussion about methodological considerations, and to illustrate that I acknowledge the sustenance of reflexivity. A description about a reflexive analysis is provided as well as the ethical concerns I faced.

Introduction

Research projects should illustrate coherence between methods, methodology, and epistemology (Holloway & Todres, 2003). The aim of this middle chapter is to outline where this need for coherence impacted and elucidate how it has been achieved. A story is told about my interest in the research area and how the systematic review led to the empirical study; some of the decisions made and challenges faced. The importance of the research paradigm, ethics, and reflexivity, the influence each had upon methodological decisions made, and the interlocking relationship between them are presented.

The empirical research reports a complex causal relationship between teacher efficacy (TE) beliefs and inclusive views, possibly multifaceted and interactionist in nature. It illuminates the importance of discourses upon what facilitates and inhibits development of TE. A re-conceptualisation of Bandura 's (1997) SE theory is supported.

My journey

My first experiences of the EP role were some years before applying for the Doctoral training. At the time I was employed in an infant school as an 'Inclusion Assistant'. I would engage individual or small groups of children in targeted work inside and outside of the classroom. Since this point in my career the concept of inclusion and its diverse meanings to different people / institutions has fascinated me. My ontology (introduced later) influences my inclusive views: if no child were considered different could all children not be educated together in mainstream provision, each with the same opportunities?

Inclusion has been a recent area of government drive, for example the Inclusion Development Programme: Supporting Pupils with Behavioural, Emotional and Social Difficulties (DCSF, 2010) and localising services, placing them more centrally to communities, to enhance accessibility and include families construed as harder to reach (DfE, 2011b). These recent government agendas have contributed to my curiosity in inclusive practice and I have subsequently become interested in how this might be facilitated.

Additionally, the current coalition government has been explicit in its aims to ‘remove the bias towards inclusion’ (DfE, 2011a, p. 29), prevent the closure of special schools, and use staff from special schools to educate those in mainstream (DfE, 2011a). This research provides a way for a group of special school staff’s knowledge to be explored and presented in a way that allows others to learn from them. At a time when demand for special school teachers could increase, this research is pertinent in furthering understanding of how teachers construct the relationship between their efficacy beliefs and inclusive views, so exclusion of children and young people might be prevented. Understanding how teachers might be able to develop their efficacy beliefs is likely to lead to enhanced inclusion at a time when pathways to exclusion could be eased.

What teachers say about the relationship between their inclusive views and efficacy beliefs, and how these efficacy beliefs might be developed, were explored via the empirical study. Whilst promoting a model of specialist provision the government also advocate the opening and running of Academies and privately run Free schools, where school leaders, staff, and parents are encouraged to make decisions independently and move away from the Local Authority (DfE, 2013a). This is happening at a time when resources of specialist services are being drastically reduced. Research into the development of TE is, within this context, of benefit to mainstream staff as well as those working in special schools. Considering this political context, a literature review into the relationship between TE and inclusive views, and further investigating this relationship empirically, seemed appropriate.

My focus

The literature review paved several possible avenues for future research. The following main points were highlighted: a relationship between TE and inclusive views, with the possibility that an increase in the former cases the latter to become more positive; perceived behavioural difficulties have a stronger relationship with TE than perceived difficulties of a different origin; and factors of TE are consistent with Bandura ‘s (1997) personal TE. Existing research into efficacy beliefs seemed

dominated by quantitative methods identifying high / low values. There seemed to be an assumption that by enhancing efficacy beliefs, inclusion would be promoted. Upon close analysis of the literature, it did not seem evident that this relationship had ever been confirmed. I therefore wanted to enrich existing data by exploring the relationship between efficacy beliefs and inclusive views to further understanding, and investigate how efficacy beliefs might be enhanced. This, alongside my epistemology, led me to a qualitative research design.

Theoretical influences

A number of different psychological theories influenced the direction of the research and how I approached it. These are presented, each in turn.

Social Cognitive Theory

Social cognitive theory (Bandura, 1997) provides the framework for self-efficacy theory. Human beings are social animals and we continue to learn from one another in a variety of situations through life. Visible here is the notion of humans as cognizing agents: our cognitions, and ability to make sense of these, are unique to the human race. My ontology and epistemology are strongly influence by the importance I place on the cognitive capacity of humans. This is explained further later.

Social cognitive theory acknowledges the significance of interactions between the individual (cognitive, affective, and biological) factors and their surrounding environment (Tschannen Moran & Woolfolk Hoy, 2007). It states that the interpretation of psychological experiences (self-efficacy sources) can be affected by: global self- beliefs, contextual factors, perceptions of expended effort, capabilities to self-monitor while reconstructing experiences, and perceptions of how we develop over time (Bandura, 1997). Awareness is raised then, to the possibility of a number of interactions occurring in my research and the idea that the results are affected by a number of factors.

Symbolic Interactionism

Interactionism is an idea also significant to my psychological and social understanding of the world. Symbolic interactionism (Blumer, 1986) views the world in terms of

personal and environmental interactions. One's response is not dependent upon internal factors such as personality, but is instead viewed as a response to the interaction occurring between them and the object / individual with whom they are interacting. This influences my own epistemological stance, and inevitably that of the research: the issues discussed are only real issues because I, the researcher, raised them as that, within the interview context. I co-constructed them with the participants, and the interactions between myself and the interviewees guided the direction of the interviews.

Ecological Systems Theory

The impact of various systems, and the relationships between these systems, surrounding an individual, as in Bronfenbrenner's (1989) ecological systems theory, influenced the analysis of the empirical research data. This is well illustrated in the thematic map for research question 2 in particular, where overarching themes of *personal, relationships, and community* could be identified as meso / macro / exo systems (p.54). Factors at different systemic levels were talked about by participants to impact their efficacious beliefs, and could thus be utilised to facilitate a growth in these beliefs.

Research paradigm

'Research paradigm is a perspective about research held by a community of researchers that is based on a set of shared assumptions, concepts, values, and practices' (Johnson & Christensen, 2012, p. 31). The question being asked and how it is being answered reflects the paradigm the research sits within (Willig, 2008). The current research did not aim to test hypotheses or theories. It aimed to explore what individuals say: about a certain relationship, and how a set of their beliefs might be enhanced. The paradigm is therefore not an essentialist one.

Ontology and epistemology

Ontology refers to views about existence (Gruber, 1993). For me, these views include individuals constructing interpretations of their experiences. The world is thus interpreted differently by each of us. Conversation, dialogue, and the use of language are central to this process of interpretation (Burr, 2003). As the world is different for each of us, there is not just one truth but various *knowledges*. How knowledge is

created is defined as epistemology (Willig, 2008). My interpretation of the participants' experiences, made real through the interviews and the linguistic processes therein, is shaped by my own beliefs and understanding of the world. Reflexivity, described later, is subsequently important.

The construction of the research emphasises linguistic and social processes but also participants' thoughts. Language is seen as a product of culture, history, and the context at the time of the given conversation. I believe people do have thoughts and beliefs, but they fluctuate as do the (social, interactive) contexts in which we find ourselves. The epistemology of this research is therefore relativist though not radical in terms of the importance of social processes. We live in a social world but continue to think within it. Social constructivism is moulded by such beliefs.

Social constructivism

Social constructivism sits within a relativist ontology (Gelanty, 1997): there is no concern about whether an objective world or truths exist- emphasis is instead placed upon different constructions. Categories and constructs we use to interpret and understand our worlds are shaped by our culture and history; thus, our realities and perceived truths are culturally and historically defined (Burr, 2003). We are agents, actively exploring our social worlds. In turn we create knowledge that becomes our *truth*, and for each of us this varies.

Little has been written about social constructivism as an epistemology; it is difficult to label and writers' interpretations vary (Gergen, 1997). It shares similar beliefs to social constructionism, but with one significant difference: constructionism does not stress the cognitive capacity of social agents (human beings) and the influence these cognitions have upon the meanings we make of our experiences / realities (Gelanty, 1997). Secondly, whilst constructivism acknowledges the importance of discourses it does not argue language is all there is (Burr, 2003).

Due to the similarities between these two epistemologies, and given the lack of literature about constructivism, some of the cited materials used herein were written with constructionism in mind (though relate to constructivism).

Discourses

Influential to the process of truth-constructing are discourses; a 'frame of reference, a way of interpreting the world and giving it meaning that allows some objects to take shape' (Burr, 2003, p. 105). Discourses are shaped by language and those who use it, medium, purpose, and prior discourses, and these factors in turn shape discourses (Johnstone, 2008). There are a number of different discourses surrounding any event, each offering an alternative way of constructing it.

Discourses influence institutional and social practices, which affect our actions, behaviours of those around us, and the decisions we make (Burr, 2003). This is because of the relationship between power and discourse: power sways people to listen to, and act upon, truth claims (Willig, 2008). Power is thus awarded to people sympathetic of global truths, subsequently discriminating the idea of individual constructions.

My research acknowledges the significance of discourses as well as personal social histories and the manner in which possibilities and restrictions intrinsic to our personal worlds might contribute to the creation of our constructions (Cromby & Nightingale, 1999).

Finally, I felt it important to remain mindful of the ethical implications of my epistemology, explored later in the section about ethics.

Methodology

The exploratory research questions about teachers' inclusive views and efficacy beliefs, and the development of these beliefs, and the constructivist research paradigm led to a qualitative study. Assuming the existence of objective truths, rather than knowledge being constructed, is what renders experiential methods discordant with social constructivism (Gergen, 2009). The methodology in my research placed people as individuals who make sense of their experiences and construct their realities using social, cultural, and discursive processes.

Sampling

I visited the school, met with the staff, and explained that the research study was exploring what staff say about the relationship between efficacy beliefs and inclusive views. I also outlined what would be expected (both from participants and me). Staff were left with a sheet of paper for them to sign up for participation in the research, and my contact details should they have any enquiries about the project. During this period I maintained communication with the Head Teacher. It was decided no other visits to the provision were necessary until the interviews. By the time of the interviews 7 staff members had volunteered.

Process

Consideration was given to videoing the teachers once they had each been interviewed, to look for discrepancies between what they said they believe and their practice. TE research largely relies upon self-report measures (Wheatley, 2005), where teachers may over or under estimate their beliefs (Wyatt, 2012). Studies into the inclusive practice of teachers (as opposed to just views) is lacking (Klassen et al., 2011). Critical and interpretive perspectives are called for (Labone, 2004). I agreed with the idea that the cumulative body of efficacy research should be more relevant to practice (Woolfolk Hoy et al., 1998), and felt examining their inclusive practice might serve as a way to enhance their efficacious beliefs. However, this would require a pre-/post design, which would be more (longitudinally) time consuming. It would have significantly broadened the research questions and shifted the emphasis from the original focus.

Data Analysis

A number of different methods to analyse data were researched and contemplated. Interpretative Phenomenological Analysis could not be used due to its realist epistemology. Grounded Theory was not possible because I had already begun to form a knowledge base about TE at the time of data collection / analysis. Discursive Psychology, Narrative Analysis, and Foucauldian Discourse Analysis were not appropriate because in these methods text is seen as the object for analysis where-as I sought a method of analysis that, whilst attending to discourses, would use text as a proxy for experience (Bernard & Ryan, 1998). Inductive, or data driven, thematic

analysis facilitates exploratory research questions and fits with a social constructivist epistemology (Braun & Clarke, 2006; Guest, MacQueen, & Namey, 2012).

Ethics

This research has been carried out in line with the British Psychological Society's (BPS, 2009) and Health Professions Council's code of ethics and conduct (HPC, 2008, 2010). I outline how I met these standards.

Evident through my chosen sampling technique, I did not want staff members to feel it was compulsory for them to participate, or that the only gains / purposes of the research were for myself. I was hopeful that findings would reveal information useful for enhancing TE and help staff understand the importance of doing this within the context of inclusion. Written and oral information about right to withdraw and / or refusal to answer questions was aimed to help augment the participants' sense of agency within the research project and minimise power differentials that inevitably exist between researchers and interviewees (Morrow, 2005; Opie, 1992).

I felt ethics should be contemplated from an epistemological perspective too. Seeing participants as social actors with whom I co-construct realities in a given time and context means I think once I have interacted within a given milieu that milieu is forever changed (Burr, 2003).

Finally, at the close of each interview a de-brief was given, where aims of the research, right to withdraw, and consent issues were all re-iterated. This time was also used to check the interviewees felt at ease with the progress of the interview and were happy to return to work. Had anyone not been comfortable a plan was in place to consult the Head Teacher and consideration would be given to postponing / terminating the remaining interviews.

Critical methodological comments

Being the first large piece of research I've engaged in there are a number of factors that require attention and reflective thought. Thematic Analysis has been critiqued by a number of researchers (e.g. Stone, 1997) for representing only the beginning stages of analysis and subsequently not analysing thoroughly enough. Because themes are

constructed by the researcher subjectivity is unavoidable: a different researcher would have constructed alternative themes. This last point also applies to the method of semi-structured interviewing: another researcher would have asked different questions, which would have produced varying data, themes, and results.

Reflexivity

Reflexivity is an explicit consideration about how a researcher affects their research (Willig, 2008). As mentioned earlier, the findings of the study were influenced by my stance and interpretations. I have also aimed to be epistemologically reflexive, retaining attentiveness of the impact of my epistemology on my reaction to the context, data, and overall construction of the research study, and how this influenced findings. I tried to enhance reflexivity not only through awareness of these factors but by remaining open to the possibility that additional research questions may come to light when analysing data. This indeed happened (research question 3). The first two research questions were somewhat fixed at the point of designing the research, because the empirical study is required to be a continuation of the literature review, and these questions seemed a logical next step.

Summary

This middle chapter has explained the bedrock of the empirical piece; from how my own personal interest in the area of TE and inclusion developed, to the theoretical, ontological, and epistemological foundations that guided the research. My ontological and epistemological stances influenced the research methodology, as well as the lack of qualitative data in the field of TE. Thematic analysis was chosen to analyse the data as it most appropriately responded to the research questions and aims, paid attention to discourses whilst generating themes, and allowed a constructivist epistemology. This helped identify a range of implications for practice and research including a re-conceptualisation of Bandura's (1997) original theory.

Empirical Research: What staff say about the relationship between their inclusive views and efficacy beliefs, and how their efficacy can be developed.

Abstract

Aims: Following a systematic literature review that confirmed a correlation between teachers' efficacy beliefs and their inclusive views, this empirical research aimed to investigate how teachers talk about this relationship. It set out to analyse how teachers talk about the development of their efficacy beliefs and what facilitates or prevents these processes.

Method: Semi-structured interviews were used with a group of staff from provision educating young people with statements of special educational needs of a social, emotional and behavioural orientation. Herein this is referred to as SEBD, with the D abbreviating 'difficulties'.

Data Analysis: Thematic Analysis led to a co-construction of data driven themes that indicated the relevance of discourses surrounding teachers as individuals and part of wider systems.

Conclusion: The research illuminates the importance of social processes to Bandura's (1997) theory, and suggests a re-conceptualisation may update his theories and make them more relevant to teachers practicing in today's world.

Implications: The significance of using a social constructivist paradigm to further enrich the understanding of teacher efficacy is considered. Social constructivism can acknowledge the influence of discursive processes whilst acknowledging teachers as cognizing agents, able to interpret, think about, and make sense of their surroundings in relation to their efficacy beliefs.

Educational Psychologists are identified as being prominent to working with teachers to heighten awareness of the implications of discourses to their efficacy beliefs and subsequent inclusive views and practices.

Introduction

Self-efficacy

Self-efficacy (SE) refers to a 'set of beliefs in one's capabilities to organise and execute...action required to produce given attainments' (Bandura, 1977, p. 3). SE beliefs are pivotal to social cognitive theory (Bandura, 1986). This transactional framework positions cognitive, affective and biological factors as interacting bidirectionally with patterns of behaviour and environmental factors to influence human agency and SE (Bandura, 2000). SE affects the efforts with which we approach tasks, therefore guiding and motivating our actions (Bandura, 1997). Perceived information is filtered, weighted, selected, and integrated to build SE (Woolfolk-Hoy, Tschannen-Moran, & Hoy, 1998). Thus, some experiences are emphasised in the mind (Wyatt, 2012) whilst others are ignored, unable to affect the individuals' efficacy (Labone, 2004).

SE sources are conceptualised as psychological experiences (Bandura, 1997). There are four SE sources. This first is enactive mastery experiences, which are concrete experiences of successfully performing a task. When we engage in tasks and interpret the actions, we use the interpretations to develop beliefs about our capabilities to engage in such tasks thereafter, and act in accordance with the beliefs created. Hence, if we interpret the task as successfully mastered our efficacy beliefs are raised (Pajares, 2002a). Secondly, vicarious experiences are exposures to someone else performing a given task. When we observe others we form a mental construction of how certain tasks are performed, and in the future, when we want to execute the task, this mental construction acts as a guide (Bandura, 1977). Verbal persuasion, the third, is being told by another individual that you succeeded / will succeed at a given task. 'Persuaders...cultivate people's beliefs in their capabilities while at the same time assuring that the given success is attainable' (Pajares, 2002a). Lastly, physiological and affective states, perceiving information about our capabilities through our senses, means that people's negative emotional experiences affect the interpretation of our physical being, and by reducing these negative emotional experiences, our efficacy beliefs can be enhanced (Bandura, 1994).

Teacher Efficacy

Teacher efficacy (TE) refers to teachers' beliefs in their capabilities to achieve future outcomes (Tschannen-Moran & Woolfolk Hoy, 2001). TE beliefs are domain specific (Bandura, 1977; Dellinger, Bobbett, Olivier, & Ellett, 2008) though the level of specificity is unclear: are beliefs specific to teaching maths, algebra, or quadratic equations? (Tschannen-Moran & Woolfolk Hoy, 2001, p. 790). Domains commonly recognised amongst TE researchers are: classroom management, engagement, and instructional strategies (Gibbs & Powell, 2012).

Mastery has been found to be the most powerful source of TE (Bandura, 1997).

Research elsewhere suggests the relevance of additional TE sources, namely, personality characteristics, e.g. positive stance and humour; capabilities or skills, e.g. flexibility in teaching choices; and motivation, e.g. desire(s) to improve the teaching task (Poulou, 2007). These findings influenced the argument: 'experiences alone do not affect cognitive processing...experiences allow teachers to construct knowledge and belief structures that influence cognitive processing' (Fives & Alexander, 2004, p. 4).

Development of Personal TE beliefs

Broadening the understanding of how to develop TE beliefs could enhance inclusion and reduce exclusion (Gibbs, 2007). Considering the potential powerfulness of TE it is surprising that explorations into understanding the processes that build TE beliefs is lacking (Henson, 2001). Current TE literature understands TE beliefs as fluid and continually developing as teachers perceive and respond to new experiences (Fives, 2003). The development of TE beliefs is likely to be linked closely to efficacy sources (Goddard, Hoy, & Woolfolk Hoy, 2000), yet, interestingly, Bandura (1997) argued TE was difficult to influence: feedback that challenges current beliefs is the only likely way to develop them. Teachers are perceived as being more malleable earlier in their careers (Tschannen Moran & Woolfolk Hoy, 2007), which helps explain why most research into TE has been conducted with student teachers (Wyatt, 2012). When grouped, however, student teachers commonly over estimate their beliefs (Tschannen Moran & Woolfolk Hoy, 2007), misleading research results (Henson, 2001).

Woolfolk-Hoy, Tschannen-Moran, & Hoy (1998) proposed that TE beliefs develop in a cyclical nature. Consequences of TE, cognitions, SE sources, and the context specificity of the teaching task in relation to perceptions of competence are linked. Efficacy building experiences are cognized, and affective resources such as knowledge and skills (Wyatt, 2012) are contemplated. It is questionable whether knowledge and skills can be described as affective resources; Bandura's (1977, 1997) theory suggests the term affective refers to emotional states whereas knowledge is something we possess in a cognitive capacity. This model, however, leaves no room for the possibility of negative TE motivating teachers to overcome difficulties, leading to personal development and enhancement of TE (Wheatley, 2002). Literature about how TE beliefs develop is lacking and that which does exist appears contentious (Wyatt, 2012). To date, further training (Barco, 2007; Jordan et al., 2009), professional development (Henson, 2001), and supporting emotional well-being (Pajares, 2002b) have been identified as possible mechanisms for developing TE. The latter appears to be supported by the notion that teacher burnout (a result of stress, which, in Bandura's SE terms is an affective state) can deplete TE (Brown, 2012). Considering the emphasis placed upon the sources of SE, the small amount of research suggesting ways to enhance TE has surprisingly not discussed results in terms of SE sources.

Enabling factors influence SE beliefs (Bandura, 1997); of particular relevance to TE is *group enablement*: sharing responsibilities, also relevant to collective efficacy (CE), defined as 'people's shared beliefs in their collective power to produce desired results' (Bandura, 2000, p. 75). Research into CE has excelled recently (e.g. Gibbs & Powell, 2012; Ross, Hobaboam-Gray, & Gray, 2004). Schools where teachers feel more influential over decisions have been shown to demonstrate high CE (Goddard, Hoy, & Hoy, 2004), which could positively affect TE (Gibbs & Powell, 2012), especially if a vision is shared amongst staff (Ross et al., 2004).

Dominant challenges in SE literature

TE research is inherent with 'dilemmas': measurement (Henson, 2002, p. 137), application, and construct (Wyatt, 2012). At a measurement level, authors whose work is based upon Bandura's (1997) theoretical framework often cite pre-1997 literature, ignoring Bandura's critique of this body of data (Wyatt, 2012). Pre-1997 evidence receives criticism (Henson, 2002) for measuring locus of control (Rotter,

1966) rather than SE. With regards to the construct criticisms, much of the literature confuses current understandings of SE (Henson, 2002). Additionally, almost half of the research published between 1998 and 2009 has been described as conceptually inadequate, with 'misleading conclusions' (Klassen et al., 2011, p. 37), leading to flawed applications (Wyatt, 2012).

Additionally, earlier definitions of efficacy have been referred to as agent-ends conceptualisations (Skinner, 1996); outcomes are measured by the individual / teacher. Agent-ends conceptualisations do not adequately reflect the complex multiplicity of the teaching role (Wyatt, 2012). Quantitative studies, which dominate TE research (Labone, 2004), usually adopt an agent-ends definition (Wyatt, 2012). An agents-means definition, (Wheatley, 2005) however, refers to teachers' beliefs in their abilities to take action. Research questions should adopt an agent-means definition, focussing on what teachers believe they *will*, as opposed to *can*, do (Klassen et al., 2011).

Following these debates, various researchers have proposed a re-conceptualisation of TE (eg. Wheatley, 2005). It should acknowledge teacher's fluid constructions of their complex roles, with agent-means as well as agent-ends components, and recognition of the importance of domain specificity (Wyatt, 2012), as well as the isolation that can occur within the teaching role (Critchley & Gibbs, 2012).

What is understood about the relationship between TE and inclusive views?

The literature review preceding this empirical study discovered a correlation between TE beliefs and inclusive views. Bandura (1997) suggested that teachers with low efficacy beliefs locate low student ability as the main reason why many youngsters are perceived difficult to teach. TE has been found to influence whether teachers construe learning challenges to be because of their own practice or the students' perceived special educational needs (SEN) (Woolfson & Brady, 2009). Constructing disabilities around a within child model means teachers use causal attributions for children struggling in the classroom. Such a view is associated negatively with efficacy beliefs (Woolfson & Brady, 2009): teachers with low TE believe little can be done to help raise

the achievement of these children. Such a view is believed to act discordantly with the notion of enhancing inclusion (Gibbs, 2007) but research confirming such claims is lacking.

Numerous factors have been identified as influential over TE and inclusive practice (Wertheim & Leyser, 2002). Those teachers who have been practicing longer, females, and teachers of older students have all been found to possess higher TE alongside more positive inclusive views (Barco, 2007). If qualified to teach children classified as SEN, TE is higher than if qualified to teach mainstream children (Leyser et al., 2011). This piece of research was not conducted in the UK, where all qualified teachers are able to educate all children, whether identified with SEN or otherwise. Teachers in the UK are able to work in mainstream settings or specialist provision: an additional qualification is not required. Teachers with high efficacy perceive themselves as more successful at including children with perceived SEN in mainstream classrooms (Brownell & Pajares, 1999). Discourses about inclusion implicating extra work for teachers and 'dumbing down' lessons for students perceived more able also seemed apparent (Barco, 2007, p. 1).

In spite of these findings highlighting an apparent relationship between TE and inclusive views, the most recent research in this area found no association between personal efficacy beliefs and numbers of pupils excluded (Gibbs & Powell, 2012). Little supportive / contradictory evidence could be found: the authors acknowledge a lack of research into the influence of TE beliefs on management of behaviour. This research does point towards the significance of CE beliefs within the context of inclusion, however. Additionally, the research literature seems to suggest the importance of culture on achieving inclusion, specifically, helping to develop a shared vision amongst staff (Pearce & Forlin, 2005; Tripp, Rizzo, & Webbert, 2007).

Summary

Social cognitive theory (Bandura, 1986) provides a framework for SE, and subsequently TE beliefs, that allows acknowledgement of transactions between personal (cognitive, affective and biological) factors, environmental factors, and our behaviours. The multifaceted model explains the influences of these transactions on the beliefs we

construct about our perceived capability to execute certain actions (Bandura, 2000). TE beliefs are specific to the context in which teachers find themselves, but there seems to be confusion about the level of specificity (Tschannen-Moran & Woolfolk Hoy, 2001). Literature suggests a relationship between TE and inclusive views, setting forth the argument for enhancing TE to accelerate inclusion (Gibbs, 2007). Nevertheless, little is known about the connectedness of the TE / inclusive views relationship or how to develop TE beliefs.

Aims of the current study

The literature review highlighted a relationship between teachers' efficacy beliefs and their views about inclusion: if one were positive the other was also likely to be positive. No inferences about causality were made. When compared to other areas of perceived difficulty, TE in the domain of behaviour management was found to possess the highest correlation with inclusive views. Therefore, through consideration of gaps in the literature, previous research findings, and a desire to expand earlier findings, the current research therefore aimed to:

- Explore what staff say about the relationship between their inclusive views and behaviour management TE beliefs, and
- Explore what staff say about how behaviour management TE could be supported

Subsequently, the research questions for the current study were:

1. What do a group of staff from SEBD provision say about the relationship between their teacher efficacy beliefs and inclusive views?
2. What do a group of staff from SEBD provision say about what helps support their teacher efficacy beliefs?
3. What do a group of staff from SEBD provision say about what prevents growth of their teacher efficacy beliefs?

Method

Methodology

This research adopted a qualitative design, reflective of the researcher's constructivist epistemology. Bandura's (1977) theory of SE guided this research, though symbolic interactionism (Blumer, 1986) shaped the process and analysis. The research aimed to explore teachers' understandings of their experiences whilst acknowledging the interpretative role the researcher plays in co-constructing the knowledge and subsequent findings from the data. This theoretical influence presents notable differences to previous research into TE, which has generally adopted the view that TE is measurable, quantifiable, and a universally consistent truth. The present research acknowledges the role linguistic processes and contexts play in forming reality and the construct of TE, therefore advising against generalisability. Truth is viewed as multiple and subjective (Taylor & Usher, 2001).

Participants

Participants were 7 school-staff members; 6 teachers and 1 one non-teaching staff; 3 male, 4 female. 4 of the participants, including the non-teaching staff member, formed the Senior Management Team. The other 3 members of the senior management team were qualified teachers; 2 continued to teach daily. The opportunity sample comprised no support assistants.

Provision

The provision is identified as a school for Key Stage 3 and 4 pupils who have statements of SEN for social, emotional and behavioural difficulties. At the time of the research there were 48 youngsters on roll. The Head Teacher was appointed in 2010 when the school was in Special Measures. Table 4 compares exclusions data from when the Head Teacher first started leading the school to the time the research was conducted.

Table 4: A Table to show exclusion data for sample school

	At time of Special Measures	At time of research
Number of exclusions*	181	120
Number of individual young people excluded	29 (spring term '09)	12 (summer term '13)
Average length of exclusion	>3 days	<3 days
Days lost through exclusion	293.5	122.5
Money spent on alternative educational provision	£250,000	£110,000

*exclusions range from 1 to 7 days.

Research Design

Semi structured interviews were used for this exploratory study. They provided the researcher with the flexibility to explore points of interest that arose throughout the interview, while allowing the interviewees the freedom to explain thoughts and highlight areas of interest / expertise (Horton, Macve, & Struyven, 2004). Semi structured interviews complimented the researcher's constructivist epistemology (Salue, 2000).

Data collection

All staff members were interviewed using the same guide (Appendix B). Semi structured interviews allowed exact wording and order of questions across interviews to vary depending on the direction of the participants' responses. Written consent was gained at the beginning of each interview (Appendix D shows a sample consent form) as was permission to audio record the interviews. Interviewees and transcripts were numbered to retain anonymity. The process of transcription was shared between the researcher and a professional third party. All transcripts were checked against recordings by the sole researcher.

Data Analysis

After researching numerous analytic methods, the researcher concluded Thematic Analysis (TA) (Braun & Clarke, 2006) would most appropriately fit with answering the research questions. TA agreed with the researcher's epistemological stance of social constructivism whilst acknowledging the meaning that cognizing individuals construct from their own experiences, and the impact of the wider social context (Braun & Clarke, 2006).

Findings

Analysis

Details of the six phases of TA (Braun & Clarke, 2006) are outlined in table 5.

Table 5: A Table detailing the six phases of the thematic analysis process

Thematic analysis phase	Description of phase
1. Familiarising yourself with the data	Transcribing the interviews; repeated reading of transcripts; searching for meanings and patterns; taking notes/marketing ideas/making a list of what is interesting about the data (for coding)
2. Generating initial codes	Group (i.e. code) features of data interesting to you (analyst); keep surrounding text- do not lose context; retain contradictory codes
3. Searching for themes	Sort/combine codes into potential overarching themes; table/mind map can help; consider relationship between codes, themes, levels of themes; discard nothing
4. Reviewing themes	Refine themes: consider combining/omitting if data too diverse or insufficient Level 1: Read all collated extracts for each theme to check a coherent pattern has formed.

	<p>Create new/omit existing themes if required.</p> <p>Level 2: re-read data set to check if themes and data set marry; code additional data in themes missed in previous coding phases</p> <p>Repeat levels 1 and 2 until satisfied with thematic map. Should have clear vision of relationship between themes and overall story being told about data.</p>
5. Defining and naming themes	<p>Themes should not be too diverse or complex. Write a detailed analysis for each theme that tells story of each theme but also story of whole data set. Create subthemes to structure complex themes and give meaning hierarchy. Should be able to describe scope and content of each theme in couple of sentences.</p>
6. Producing the report	<p>Demonstrate that the analysis provides ‘a concise, coherent, logical, non-repetitive, and interesting account of the story the data tell-within and across themes’ (Braun & Clarke, 2006, p.23)</p>

Research Question 1: What do a group of staff from SEBD provision say about the relationship between their teacher efficacy beliefs and inclusive views?

Because only a small, specific part of the data was relevant to research question 1 the construction of the thematic map was relatively simple. Refining codes and themes was not deemed necessary. The thematic map can be seen in Figure 1.

Each participant was asked for their thoughts about inclusion, so as to identify any conceptual ambiguities across the data set. All 7 participants stated inclusion to be about educating young people amongst their peers in a classroom, preferably within

their local mainstream school. The relationship between TE and inclusive views was talked about in different ways, and quotes corresponding to each theme / subtheme can be seen in Table 6. 1 staff member reported to have not previously thought about any such relationship and therefore felt unable to answer the question. Data corresponding to this question is subsequently based upon the remaining 6 participants' responses.

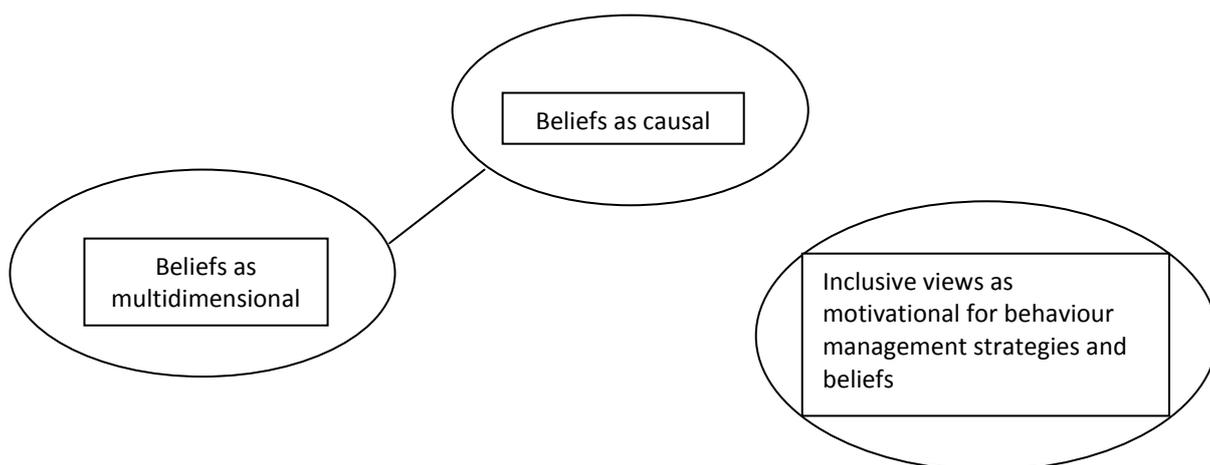


Figure 1: thematic map illustrating what participants said about the relationship between their teacher efficacy beliefs and inclusive views

Table 6: A Table showing how participants' talk corresponds to relevant themes and subthemes (Research Question 1)

Numbers in brackets refer to, in order of appearance; interviewee number, page number, line number.

Theme	Participant's responses
Beliefs as causal	<ul style="list-style-type: none"> • “if you can handle the behaviour and you feel you know how to approach it then therefore you would be able to handle them in a whole group together...one feeds the other: you have to be able to be confident to um deal with that behaviour in order to be able to put them into an

	<p>inclusive classroom” (2/3/7-12)</p> <ul style="list-style-type: none"> • “if I had a class and I felt confident about being able to manage behaviour in my class then there’s the greater the chance for inclusion of anyone who’s got any behavioural issues. If on the other hand I don’t feel I didn’t feel confident than as many mainstream teachers don’t that’s why you get kids going down the the the path where they get permanently excluded” (1/27/12-28/1) • “teachers in mainstream have not been able to cope with them or deal with the behaviours they’ve been throwing out...I don’t think they do [sit side by side] actually....teachers, you’re getting on the job and you try and make the best that you can of it. And the whole point is that you try to include as many kids that you can ...they say ‘oh no, I’m not going to deal with that behaviour’ they put down a barrier to it [inclusion]” (6/25/2-4_14_19-21_26/14-15)
Beliefs as multidimensional	<ul style="list-style-type: none"> • “they do [have a relationship], they go hand in hand” (4/23/2) • “that relationship I think...it sort of interacts” (7/5/9-10)
Inclusive views as motivational for behaviour management strategies and beliefs	<ul style="list-style-type: none"> • “it [favourable inclusive views] made me more determined that I was going to crack it” (5/6/7-8) • “inclusion is important...I believe in it quite strongly...when I came here I just thought do you know what I can tackle you the same way as I would have done any other difficult group...I was determined to get them to engage more” (5/7/16-21)

The first theme, *causal*, is about the relationship between TE beliefs and inclusive views. A positive belief in the staff’s own capabilities to manage behaviour was said to lead to positive inclusive views. One staff member felt unable to answer this question. Of the remaining 6 all apart from 1 (whose talk is detailed in the paragraph below)

spoke about the relationship in this causal way. There was also a clear sense that TE not only affects their inclusive views but also their inclusive practice. Many staff members generalised their views to be relevant to teachers in mainstream settings, and drew on their own previous experiences of both mainstream and special school teaching when doing so. This causal relationship was further reinforced when staff talked about low TE leading to increased exclusions.

A second theme, *beliefs as multidimensional*, was linked to *beliefs as causal*. A smaller number of staff spoke about this theme, but because of the new data offered it was considered valuable. *Multidimensional* has been used to name this theme because some of the staff suggested the causal relationship is complex and suggestive of an ‘interaction’ (7/5/9-10) between TE and inclusive views.

The theme *inclusive views as motivation for behaviour management strategies and beliefs* illustrated only one teacher’s talk. A commitment to inclusive practice (and therefore positive inclusive views) provides motivation to enhance behaviour management strategies. This teacher explicitly stated that TE beliefs were not of significance here.

Research Question 2: What do a group of staff from SEBD provision say about what helps support their teacher efficacy beliefs?

Question 2 was complex and the analytic process was more labour intensive. After finishing the first three phases of the analysis there were six themes. This is shown in Table 7.

Table 7: A Table showing themes and subthemes for Research Question 2

Theme	Subtheme
Team support	<ul style="list-style-type: none"> • Learning • Shared whole school ownership • Trust • Community

Things about me	<ul style="list-style-type: none"> • Personal characteristics • Skills • Classroom management • Life experiences
Relationship with child	<ul style="list-style-type: none"> • Knowing them • Liking them • Respect • Trust • Empathy
Systems/policies	<ul style="list-style-type: none"> • Shared ownership • Communication • Behaviour policy • Clear support routes
Collective efficacy	<ul style="list-style-type: none"> • Communication • External agencies
Ethos	<ul style="list-style-type: none"> • Supportive • Academic

In phase 4 of the TA, when themes were reviewed, codes were re-organised to ensure they only appeared once in the thematic map. Themes were altered accordingly to reflect the new coded content and this can be seen in table 8. There were then 4 overarching themes.

Table 8: A table showing themes and subthemes for Research Question 2

Themes	Subthemes
Team	<ul style="list-style-type: none"> • Collective efficacy • Learning • Information

	sharing <ul style="list-style-type: none"> • Community • Shared ownership
Personal	<ul style="list-style-type: none"> • Characteristics • Skills • Experiences • Classroom management
Relationships	<ul style="list-style-type: none"> • External agencies • Parents • Children
Systemic	<ul style="list-style-type: none"> • Ethos • Policies • Shared ownership

Following this, codes were again withdrawn due to insufficient supporting data or because they occurred twice ('policies' and 'shared ownership' in the systemic theme). Some merged to form a new theme. 'Ethos' from the 'systemic' theme, and 'shared ownership' from the 'team' theme, collapsed to form *culture as aspirational and supportive*. 'External agencies' and 'learning' fused into the subtheme *structured support routes*. 'Collective efficacy' and 'community' combined to form *colleagues as supportive*. 'Skills' and 'classroom management' joined to form *approach to teaching*.

The final thematic map for Research Question 2 can be seen below in Figure 2.

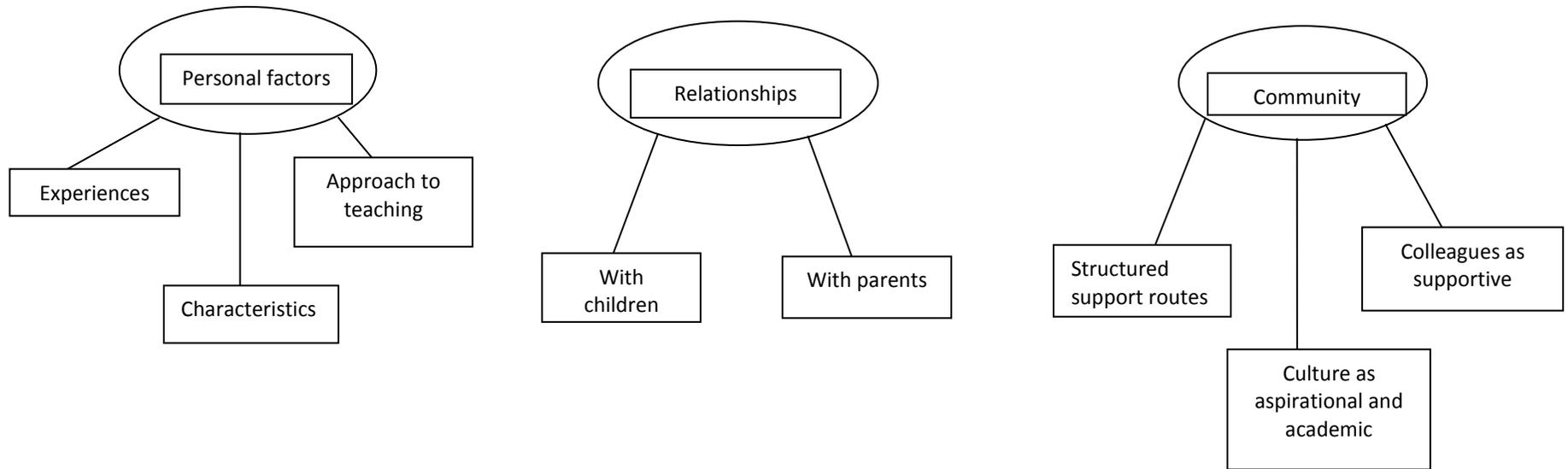


Figure 2: thematic map illustrating how participants talked about their efficacy beliefs being supported

Table 9 shows examples from participant's responses in relation to each theme and subtheme for Research Question 2.

Table 9: A Table showing how participant's talk corresponds to relevant themes and subthemes (Research Question2)

Theme	Subtheme	Participant's responses
Personal factors	<ul style="list-style-type: none"> • Our experiences 	<ul style="list-style-type: none"> • "I had quite a lot of worldly experience before" (1/1/4) • "...because I use my own experiences" (2/7/14) • "I use my own experiences. I've had lots of experiences as a child where I've had to deal with lots of things, I've had lots of issues and I'm very open with my pupils and I'm completely happy to share the experiences that I've had and I tend to be able to tune in and recognise behaviours that maybe I've either encountered myself or had to deal with or just my experiences of working with these sorts of children" (3/7/14-19)
	<ul style="list-style-type: none"> ○ Our characteristics 	<ul style="list-style-type: none"> ○ "it's really important to know how you're feeling and be able to recognise the affect that you're having on whatever situation that you're in" (4/2/7-9)

		<ul style="list-style-type: none"> ○ “I think it’s a case of resilience...it’s pretty much you, as a character” (6/18/14_16) ○ “I think it’s also down to you as a person as well” (5/8/12-13)
	<ul style="list-style-type: none"> ❖ Approach to teaching 	<ul style="list-style-type: none"> ❖ “you’ve got to make the lessons dynamic, engaging and differentiated for each of them to be able to access” (5/8/10-11) ❖ “I think it’s just down to my routine. I keep them in a routine: we’ve got clear starter, middle and plenary. I usually do the positive points on the board and I do that quite regimented every 5 minutes” (4/9/1-5) ❖ “behaviour is a lot better managed in a situation where you know exactly what you’re doing, literally minute by minute, and you deliver it in small chunks and in as varied way as possible” (6/14/9-12)
Relationships	<ul style="list-style-type: none"> • With children 	<ul style="list-style-type: none"> • “in a setting like this you get to know the kids really well, so the key issue here is to form good relationships with the kids” (6/8/3-4) • “if you can’t build a relationship that’s based on trust and respect then you can’t get anywhere with them,

		<p>and that's why some people don't make it in this environment" (4/10/1-3)</p> <ul style="list-style-type: none"> • "because I build good pupil relationships...I don't get as many behaviour issues in the classroom as some people" (7/1/13-14)
	With parents	<ul style="list-style-type: none"> ○ "more communication with parents, so if they had a bad night or something happened over the weekend, if our relationships were a little better I think we could, maybe, pick those kids up at the door" (7/9/4-8) ○ "the tighter you can be with the parent the easier it's going to be when it comes to handling the behaviour in school" (2/5/9-10) ○ "and if we can tie parents into that as well, then um, that's a really supportive network for that pupil" (1/14/13-14)
Community	<ul style="list-style-type: none"> • Structured support routes 	<ul style="list-style-type: none"> • "The fact that we have systems here with behaviour support. There's quite a clear system of what we do if it's that bad" (5/11/15-16) • "we look at it and we analyse it. Why is this

		<p>happening? Is there a pattern? Is it happening in the morning, is it happening in the afternoon? Certain members of staff? Because we've looked at data" (2/17/15-17)</p> <ul style="list-style-type: none"> • "and that's what transition's for, so pupils don't go straight into a main class where they're not swamped by 8 pupils or whatever, but they're coming to a transition group. It's very small. It's very intimate. It can be on a part time basis. So we get to know them and they get to know us." (3/7/12-16)
	<ul style="list-style-type: none"> ○ Culture as aspirational and academic 	<ul style="list-style-type: none"> ○ "right, it was a shift from it being like a youth club to an education establishment...that...when we shifted the focus and got the kids to be aspirational, staff here were not aspirational about what the kids could achieve academically...making the kids and staff believe the kids could actually achieve and that they didn't just come to school to arse about and be friends with people but they actually came to learn and achieve and be able to move on to do things in college that they wanted to do at a level they wanted

		<p>to do. There was a huge reduction in behavioural incidents” (1/21/3-12</p> <ul style="list-style-type: none"> ○ “access to GCSEs and different qualifications...we do that most we can to make sure they have a full educational life...and I think that’s something, over the last couple of years, that we’ve really tried to push, to try and make it into as much a typical mainstream experience as we can” (4/21/16-21/1) ○ “They want to achieve, they want to get the GCSE. If
	<ul style="list-style-type: none"> ❖ Colleagues as supportive 	<p>they’re a 4a now they want a 5c next time. They weren’t like that when I first came in at all” (5/6/18-19)</p> <ul style="list-style-type: none"> ❖ “being able to talk openly about any problems that you might have and then you’re not gonna be judged” (2/4/4-5) ❖ “I think even just the odd comments. Just, and it doesn’t even have to be anything structured as such. Just, ‘you’ve done really well.’ But I think we do get that, sometimes, as the whole staff. But sometimes

		<p>it feels like that's said because they've read a management book and that's a good thing to do. It doesn't feel like it's genuine. And I think it would be nice just to get the odd comment, even just in passing, individually, that 'you've done really well'" (4/14/19-15/5)</p> <ul style="list-style-type: none">❖ "It's having the support of the TAs and the other people around to do that as well...you couldn't just do it on your own, in the classroom . It's got to be the whole lot, yeah, what to do in your classroom but it's got to be what's going on around the school as well: everybody in with the same ethos of supporting each other, on that. You can't do it on your own. It's got to be together" (5/12/3-5_12-15_19)
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The theme *personal factors* was talked about in terms of what the staff said they possessed: factors construed as personality, interpretations of lived experiences, and their attitudes toward / strategies used to teach.

The second theme *relationships* was used to illustrate the significance the staff placed on relationships with the young people with whom they worked, and also their parents. The *relationship with parents* was problematic for some staff, presenting what they termed barriers to both their TE beliefs and the inclusion of the young people.

The final theme *community* encompassed *structured support routes, culture as aspirational and academic, and colleagues as supportive*. *Structured support routes*, which consisted of social learning and communication, were generally talked about positively, although some staff felt they needed to improve. *Colleagues as supportive* included elements such as staff making cups of tea for each other and providing a listening ear. If staff talked about being unable to access support from other staff they said they felt forced to seek it externally. *Culture as aspirational and academic* was talked about as being set by the Head teacher and senior management. Nurturing the young people and telling them the sky is the limit was spoken about; decisions were talked about as being made collaboratively amongst all staff wherever possible.

Research Question 3: What do a group of staff from SEBD provision say about what prevents growth of their teacher efficacy beliefs?

The researcher's interaction with the transcripts led to the construction of a third research question. Devising themes was relatively straight forward; the first thematic map was not revised. It can be seen in Figure 3.

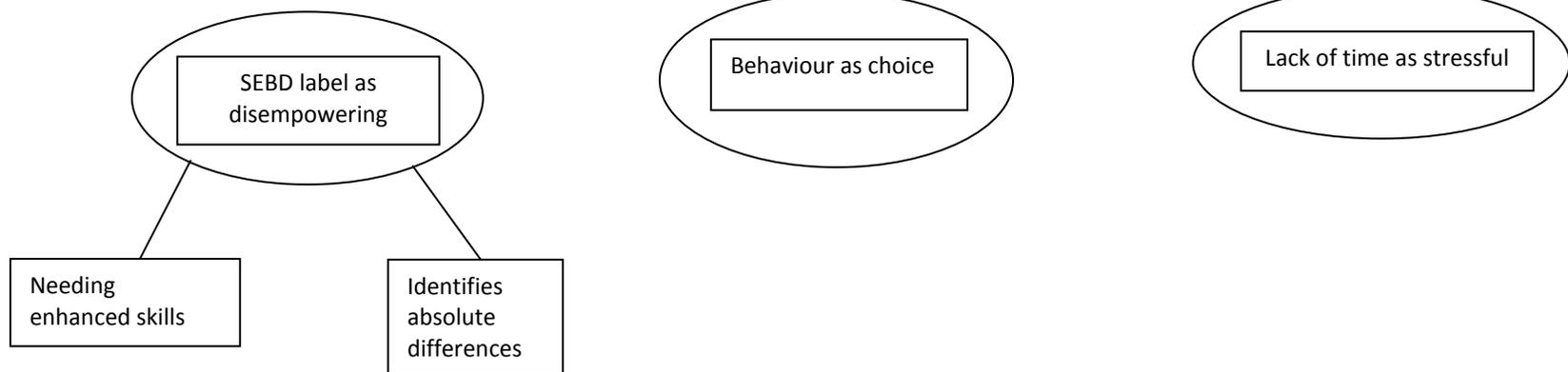


Figure 3: thematic map illustrating how participants talked about development of their efficacy beliefs being prevented

Examples of responses for each theme and subtheme for Research Question 3 can be seen in table 10 below.

Table 10: A Table showing how participant’s talk corresponds to relevant themes (Research Question 3)

Theme	Subtheme	Participant’s responses
SEBD label as disempowering	<ul style="list-style-type: none"> • Needing enhanced skills 	<ul style="list-style-type: none"> • “I’m a lot more skilled now...I think I’ve got the skills now..to bring them round” (7/7/18_20) • “it’s just so, so difficult, sometimes, to get the help that they need. Specific help that we can’t , we’re not trained. We can’t really deal with the right things...so, yeah, we use outside agencies, I would say, as much as we can or is available to us.” (5/16/5-7_14-15) • “I’m just trying to cast my mind back to a mainstream setting...you’re going to get some teachers that just, if there’s a behaviour issues, in their own mind, they just can’t hack that or they don’t, maybe they don’t have the skill, maybe, to deal with that” (6/25/14-15_26/2-4)
	<ul style="list-style-type: none"> ○ Identifies absolute differences 	<ul style="list-style-type: none"> ○ “We’ve got kids here and I think if you were to come into the classroom I think who would probably seem very EBD” (2/26/19-20) ○ “ that consistency with EBD children is so important cuz it’s the only way cuz they’re so black and white, EBD kids, very rare do you get the grey area”

		<p>(2/14/11-13)</p> <ul style="list-style-type: none"> ○ “We have a difficult job so just that’s why I did the session on morals and values, so that to really make people think more consciously about the types of children we teach” (2/19/12-14)
Behaviour as choice		<ul style="list-style-type: none"> ● “behaviour kick offs are not really possibly and hardly ever due to me as a teacher” (6/9/3) ● “she was completely in control of what she was doing, and basically I didn’t have any answers” (3/13/16-17) ● “they’re all messing around, it’s not my fault, they’ve just decided they’re going to do that and I’ll talk to them about it. They might listen, they might not listen.” (4/18/16-17)
Lack of time as stressful		<ul style="list-style-type: none"> ● “we have professional reviews ever year and it very much seems to be ‘we do it because we have to’ kind of approach. So I’ll see my line manger every 12 months. We’ll sit and come up with some targets for my own professional development. But then those are just forgotten about until the next 12 months when we look at those. Have you reached them? Yes. No. And it’s very much a pen to paper exercise. There’s not really much that goes on in-between, which is a bit of a shame. But I think that’s just down to people, like my line manager, being so stretched for time that there’s just no time. I think, and that’s partly down to the stress of this place, that you kind of, by the time it gets to 3 o’clock, you just want to go home” (4/7/17-8/7)

		<ul style="list-style-type: none">• “It’s difficult because we could all send out emails to everybody every night, but it’s getting the time in the day to actually read the notice....it’s not always possible because we get rushed off somewhere else” (7/11/4-6_13)• “Sometimes, at the end of the day or before the day or at break in the playground or something sometimes, if you’ve had...you can verbally support each other: oh thanks for that, yes it was pretty bad wasn’t it? Sort of talk about it then. But it’s quite tough to do that because you don’t get, or I don’t get, a lot of free time to do that.” (5/13/10-15)
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The SEBD label as disempowering is the first theme and refers to the implications of the SEBD label. It is separated into two separate discourses, or subthemes:

- *Needing enhanced skills*: staff spoke about needing further training and support from perceived experts in order to believe themselves capable of managing the behaviour of youngsters construed as SEBD (both in mainstream and in SEBD provision).
- *Identifies absolute differences*: use of this discourse meant youngsters were talked about in a way that inferred objective differences from individuals not construed SEBD, subsequently affecting expectations placed upon the youngsters and teaching they receive.

Behaviour as choice seemed debilitating to the staff, whose talk supported a within child model of disability. Talking about the youngsters as able to choose their behaviour meant there was a sense of teacher powerlessness with regards to managing behaviour because the staff could not make the decisions for them.

Lack of time as stressful was talked about negatively. Working in EBD provision heightened stress, the impact of which was less time devoted to staff development; a process perceived as capable of enhancing efficacy beliefs.

Discussion

This research aimed to explore what a group of staff say about the relationship between their behaviour management efficacy beliefs and inclusive views. The intention was to investigate what staff members say about how efficacy beliefs can be promoted. Additionally, throughout the process of analysis a third question was generated, surrounding what staff say about what prevents the development of their efficacy beliefs. To follow, results from the qualitative study and implications for future research and practice are considered.

Findings and Implications for Practice and Research

Efficacy beliefs and inclusive views

Findings suggest staff talked about the relationship between efficacy beliefs and inclusion as a causal construction: increasing efficacy beliefs positively impacts upon inclusive views. It was suggested by a small number of staff that this relationship could be multifaceted, as is TE: the relationship, as they spoke about it, is likely to be more complex than merely causal. This advances previous literature that suggested a possible link between the two factors and identified the relationship as likely to be causal (eg. Gibbs, 2007): this research adds new understanding that other factors could affect the interaction between TE and inclusive views. Identifying these factors requires further investigation.

One teacher talked about a commitment to inclusion motivating an improvement in behaviour management techniques, and subsequently TE. This is contrary to the purpose motivation serves in Bandura's (1997) SE theory, where the efficacious belief influences motivation. Using Bandura's (1997) theory, the motivation to include young people would be underpinned by efficacy beliefs but the teacher in the current study disagreed. Had she been questioned further about what influences her commitment to inclusion, perhaps efficacious beliefs would have been mentioned. More inquiry is needed into how teachers talk about motivation, TE, and inclusion to further understand this relationship.

The theme of *culture as aspirational and academic* included descriptions staff gave of collaborative decision making and the removal of power differentials when such decisions were made. The importance of sharing responsibilities seems parallel to Bandura's (1997) construct of *group enablement*. Schools where teachers feel more influential over decisions tend to indicate high CE (Goddard et al., 2004). Gibbs & Powell (2012) recently illustrated that high CE seems to impact positively on SE, and in schools where a vision is shared amongst staff the collective is more influential over the individual (Ross et al., 2004).

Enhancing understanding of the interactions between CE, culture of provision (focussing specifically on responsibility sharing / removing power signs), and individual efficacy beliefs could facilitate inclusion of young people. It might be beneficial for

Educational Psychologists (EPs) to facilitate staff understandings of the development of efficacy beliefs (and any links with culture) to enhance productivity of the school and inclusion of marginalised pupils. Future research could also couple evidence from the current study, i.e. what staff say about what prevents development of TE beliefs, with recent conclusions about CE (Gibbs & Powell, 2012), and explore in greater depth whether discourses such as those identified in this study are relevant in schools where CE appears higher. A greater understanding of this relationship could lay paths for further growth of TE and CE in schools, thus promoting inclusion.

Additional to further research that should be carried out by EP's, there are implications for their daily practice. Findings from this thesis can be used:

- To deliver training to help staff understand the importance of enhancing their efficacy beliefs
- For the facilitation of whole staff workshops intending to enhance their efficacious beliefs
- In a consultative capacity with other professionals aiming to reduce behavioural incidents within schools
- To design and deliver training in a multi agency context about how to develop efficacious beliefs and avoid diminishing this development
- To help understand factors that might be preventing the development of TE beliefs when working consultatively with school staff
- To deliver workshops to school staff, other professional agencies, and EP colleagues, to enhance understanding of the importance and implications of discourse

Development of efficacy beliefs

Sources of SE are fundamental in the development of individual efficacy beliefs (Goddard et al., 2000). The subtheme *experience* included participants' talk about personal, life, and teaching experiences, which adds weight to previous findings that mastery is one of the most powerful SE sources (Critchley & Gibbs, 2012). Staff used their own careers and longitudinally increasing TE beliefs to illustrate this. However,

experience was part of a larger theme, *personal factors*, which included *characteristics* and *approach to teaching*, and these have no connection with the current conceptualisation of SE sources. Additionally, whilst participants talked about mastery of the skills they felt necessary to manage behaviour, they also spoke of other skills, some of which they had mastered in other areas of their life, not just teaching. Participants spoke about mastery of parenting skills and also learning from the experiences from their own childhoods. The *experiences* subtheme found in this research supports Bandura's (1977) mastery source but suggests the current understanding could be too simplistic.

The importance of the *experiences* subthemes also critiques current theoretical understandings that efficacy beliefs are cognized before affective and cognitive resources, such as skills and knowledge (Tschannen Moran, Woolfolk Hoy, & Hoy, 1998).

Stress as a construct that is unhelpful to enhancing efficacy beliefs adds to Bandura's (1997) source of affective states: whilst helping the development of efficacy beliefs affective states can also hinder them. Supporting emotional well-being can improve efficacy beliefs (Pajares, 2002b) and this may be an objective EPs can assist schools in achieving. If teachers are not positive about their efficacy, stress can be detrimental, leading to detachment from their jobs and burnout (Brown, 2012). This research agrees with Bandura's (1977) notion that affective states act as a source for SE beliefs, but only within the context of teacher stress. More research is required in order to develop this understanding.

The *structured support routes* subtheme poses similarities to the SE source vicarious experiences. Examples of structured support routes include training, classroom observations, and management delivering briefing sessions and allowing classroom observations. Of these, training is the only example that can provide vicarious experiences. This study suggests vicarious experiences may not be a broad enough source.

The fourth SE source of verbal persuasion is also supported by the findings from this study. Conversations that take place after observations, and briefing and de-briefing sessions, were described as sometimes consisting of verbal persuasion. During these times, staff are talked to by SMT and colleagues about effective behaviour management and teaching strategies. Often, the talk serves the purpose of trying to persuade staff to use these strategies that have already been deemed successful by other teachers. Similarly, some staff were talked about as not believing themselves capable of implementing reactive, positive handling, strategies effectively. Members of SMT were said to talk to the staff in a persuasive manner, trying to help them increase their TE beliefs, with regards to these strategies.

This study introduces the possibility that TE may be developed by numerous mechanisms within any one SE source. Classroom observations provide modelling and performance feedback opportunities, while de-briefs foster social learning surrounding dialogue. Performance feedback forms a part of this dialogue but staff talked about other learning that took place, for instance verbal persuasion, which was independent of feedback. Whilst findings from this study seem to concur with previous research that identified training (a vehicle for verbal persuasion and vicarious experiences) as instrumental for developing TE (Jordan et al., 2009), it also indicates vicarious experiences and verbal persuasion may not be understood as separable. Performance feedback could be considered relevant to more than one efficacy source, depending upon the context. This study challenges Bandura's (1997) argument that feedback is the only way to significantly alter TE.

'Parental support' in their children's education is more likely to be 'invite[d] and support[ed]' by efficacious teachers (Bandura, 1997, p. 246). The current study does not have enough scope to comment on whether teachers' espoused efficacy beliefs translate to their classroom realities, or whether they sought parental engagement, but through the theme *relationships with parents* it does support the importance placed upon parental involvement. Staff talked about these relationships as crucial in developing TE beliefs. Important to note is the difference in constructions here: Bandura (1997) centring on *engagement* of parents; the staff in this study talking about *relationships*. With regards to enhancing TE, this study suggests teacher /

parent relationships to be of importance so emphasises the significance of parents engaging with their children's learning.

High achievement standards permeate the efficacious school milieu (Bandura, 1997). Although CE was not measured in this study, the importance of the *culture as aspirational and academic* supports the idea that aspiring academically facilitates the development of TE. Staff spoke of culture as delineated by the Head Teacher, which agrees with the idea that strong leadership fosters the commitment of teachers (Bandura, 1997; Gibbs, 2007). Interestingly, no theme(s) about leadership were constructed. The school used in the present study experienced a recent change in leader and Bandura (1997) indicates the significance of leadership style to efficacy beliefs.

This study partly supports Bandura's (1997) efficacy sources, though suggests some adaptation may be beneficial. More recent SE sources are argued to surround attitudes and skills (Wyatt, 2012). Flexible teaching (Poulou, 2007) appears similar to the *approach to teaching* subtheme generated in this study. These new SE sources may sit alongside Bandura's (1997) original sources, as opposed to being secondary to them, as suggested by Wyatt (2012), who argued flexible teachers may be more amenable to verbal persuasion than inflexible colleagues. Participants in the present study spoke of *personal factors* as a theme clearly demarcated from any others, conflicting with Wyatt's (2012) ideas. Further research could explore this issue, clarifying current understandings of SE sources, and the relationships and interactions between them. Researching how teachers talk about transforming their TE knowledge into action could enrich our understanding of these processes (Wyatt, 2012).

Self-efficacy as domain specific

Although some similarities with existing understandings of domain specificity can be seen, themes created in the current study are broader than those usually associated with TE. The theme *approach to teaching* encompasses the recognised TE construct *classroom management* (Gibbs & Powell, 2012), alongside other new constructs, such as creativity, flexibility, and child-centred teaching. These constructs were talked about as separate from classroom management: in the current understanding of

domain specificity there is no scope for them to sit alongside. Bandura's (1977, 1997) theories are dated and perhaps this research calls for updated characterisations of TE beliefs.

Social factors

The researcher interpreted participants' talk in terms of discursive processes. The *EBD label as disempowering* and *construing behaviour as choice* place the process of pathologising as unhelpful to staff efficacy beliefs. Within child factors seem inherent to the discursive practices and psychology of the staff. This, when considered alongside the *culture* theme, poses potential possibilities for an interactionist model that could heighten staff's awareness of the interactions between social and psychological processes and the implications these might have on their constructs and TE beliefs. These findings might be of particular interest to EPs, who could work with staff and institutions to challenge existing unhelpful psychological and social constructs. EPs could work with teacher training institutions to move away from disabling and disempowering discursive practices.

The *SEBD label identifies absolute differences* discourse prohibits development of TE. This adds a social dimension to Bandura's (1997) idea that those with depleted TE believe low ability is the reason why many students cannot be taught. Bandura's (1997) idea suggests raising TE beliefs might lead to processes that can enhance inclusion. The present study indicates that something might be happening before the TE belief, i.e. discourses. It might be of interest to TE researchers to further explore the notion that discourses might prevent development of TE, and that this might affect the extent to which teachers feel able to include students.

In social cognitive terms, beliefs are described as occurring within our minds. Themes in the current study highlight the importance of social as well as psychological processes. A new framework that emphasises the importance of these factors and challenges ontological reductionism should be considered. TE requires re-conceptualisation and further scrutinising. A devoted discourse analysis would facilitate deeper understanding of how staff talk about their efficacy beliefs, which

may in turn build and open new doors for creative EP practice around using and / or eroding discourses to enhance inclusion of pupils in mainstream education.

Summary

This study has tried to expand the understanding of the relationship between teacher efficacy beliefs and inclusive views. Staff in the sample spoke of a relationship that is causal but that might be more complex than this, suggesting an interaction between efficacy beliefs and inclusive views. The study has also tried to extend previous literature about how efficacy beliefs might be promoted, in conjunction with what inhibits such growth. Themes found in this study substantiate claims linking TE beliefs to inclusive views, and enrich existing data on SE sources and domain specificity, whilst challenging the essentialist paradigm Bandura's (1997) theory sits within.

Limitations to the research

Unfortunately, it is debatable whether interview questions were worded in a way that would allow them to be conceptualised as enquiring about TE, as Bandura (1997) theorised. This has clear and significant implications for the relevance of the findings.

The study used a small sample of staff from SEBD provision in a small suburban area. Although the research design did not aim for transferability of results, it would be helpful to carry out other research of a similar nature in other provisions and geographical locations to substantiate / challenge these findings. The sampling and data collection methods used means the research was reliant on self-reports and the possibility of self-selection bias (Wainer, 2000) is apparent. Additionally, the staff may have had an ulterior agenda. Three participants were from the Senior Management Team (SMT); one could question if it is surprising that they spoke positively about their institution/efficacy. There were no support staff in the sample so results cannot be said to be representative of the whole staff. However, one participant was not a qualified teacher yet one of the SMT. There is no understanding about whether TE is relevant to non-teaching members of school staff.

The choice of setting could also be considered a limitation. The perceptions and realities of mainstream teachers talking about young people identified with behavioural needs are likely to differ from the realities of special school teachers, as used in the present study.

Future research should consider the use of unstructured interviews for data collection and discourse analysis for data analysis, in particular Foucauldian Discourse Analysis (FDA). This would open doors to more open research questions where participants can wholly construct their talk relevant to the current time and place. FDA would allow an evaluation of the extent to which discourses used outside of the institution affect those used inside, and the implications this has upon perceptions of practice/efficacy/inclusion. It would facilitate a process whereby the role of society in consolidating these discourses could be considered. FDA acknowledges that discourse surrounds each of us: it would result in findings and implications very accessible to the staff of the setting(s) used in the sample.

Conclusions

This study has highlighted how a group of staff talk about the relationship between their efficacy beliefs and inclusive views. A complex causal relationship was suggested that might be multifaceted and interactionist in nature. The study illuminated different psychological and social ways the staff feel supported in their behaviour management efficacy beliefs, and what inhibits the development of these beliefs. Implications for practice include EPs challenging discourses and devising interventions for use in mainstream schools to enhance TE and in turn reduce exclusion rates. Future research should aim to trial and measure the effectiveness of such interventions, explore alternative constructions of efficacy, and aim to understand in greater depth the relationship between self- and collective efficacy, and motivation.

Even though Bandura's (1997) theory of SE is shown to be relevant to this group of staff, it perhaps does not bear as much significance as one might imagine. This study suggests re-visiting SE's theoretical foundations, with additional research aiding the

understanding of exactly how some of the conceptual issues uncovered in this study might be addressed.

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Appendix A: EPPI Centre Weight of Evidence (WoE) tools

EPPI Centre Weight of Evidence (WoE) tools as used to evaluate Forlin, Cedillo, Romero-Contreras, Fletcher, & Hernandez (2010)

<p>Are there ethical concerns about the way the study was done? <i>Consider consent, funding, privacy, etc.</i></p>	<p>No Study sample comprised of teachers and materials were used as according to guidance. However, tool not yet published so not been used previously.</p>
<p>Were students and/or parents appropriately involved in the design or conduct of the study? <i>Consider your answer to the appropriate question in module B.1</i></p>	<p>Yes. Inclusion of student teachers but parents not applicable to research question</p>
<p>Is there sufficient justification for why the study was done the way it was? <i>Consider answers to questions B1, B2, B3, B4</i></p>	<p>Yes Yes materials chosen were evidence-based. SE tool not yet published so not yet evaluated/reviewed.</p>
<p>Was the choice of research design appropriate for addressing the research question(s) posed?</p>	<p>Yes, quantitative data using 2 surveys was collected.</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data collection methods or tools? <i>Consider your answers to previous questions:</i> <i>Do the authors describe any ways they have addressed the reliability or repeatability of their data collection tools and methods (K7)</i></p>	<p>Yes Study used standardised measures. Cronbach's Alpha Internal reliability= .72 for SACIE and .65, .77, .32 for subscales .90 for TEIP. .87, .86, .78 for the TEIP subscales</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of</p>	<p>A little</p>

<p>data collection tools and methods? <i>Consider your answers to previous questions:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of their data collection tools/ methods (K6)</i></p>	<p>Study used standardised measures. ANOVA showed main effects of 6 independent variables.</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? (L7)</i></p>	<p>Yes The data analysis procedures are detailed. ANOVAs and Bonferroni's post hoc analyses each significant t test obtained for independent variables.</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of data analysis? (L8, L9, L10, L11)</i></p>	<p>Unknown- no details provided</p>
<p>To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study? <i>e.g. (1) In an evaluation, was the process by which participants were allocated to, or otherwise received the factor being evaluated, concealed and not predictable in advance? If not, were sufficient substitute procedures employed with adequate rigour to rule out any alternative explanations of the findings which</i></p>	<p>A little Issues around accuracy of translation could exist and applicability of survey to chosen culture is not explored. Also, cultural/societal factors between 3 different cities not explored. Likenesses between course structures/contents not explored. Effects could have been mediated by researcher's briefing of study.</p>

<p><i>arise as a result?</i></p> <p><i>e.g. (2) Was the attrition rate low and, if applicable, similar between different groups?</i></p>	
<p>How generalisable are the study results?</p>	<p>The participants were pre-service in the final 2 semesters of an initial teacher training programme in Mexico. 85% female.</p> <p>The study results are generalisable to that population only.</p>
<p>In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study?</p> <p><i>Please state what any difference is.</i></p>	<p>No</p>
<p>Have sufficient attempts been made to justify the conclusions drawn from the findings, so that the conclusions are trustworthy?</p>	<p>Some- demographics used to explain variability in data. Authors failed to recognise limitations to research.</p>
<p>Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)?</p> <p><i>In some studies it is difficult to distinguish between the findings of the study and the conclusions. In those cases, please code the trustworthiness of these combined results/conclusions.</i></p>	<p>Moderately- good external validity</p>
<p>Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this</p>	<p>Low- no correlation between attitudes and efficacy calculated. Only means and standard deviations provided. Construct</p>

specific systematic review.	validity not tested.
Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for addressing the question of this specific systematic review	Low - no conceptual framework
Weight of evidence D: Overall weight of evidence <i>Taking into account quality of execution, appropriateness of design and relevance of focus, what is the overall weight of evidence this study provides to answer the question of this specific systematic review?</i>	Low - no conceptual framework, no limitations

EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Gao & Magner (2011)

<p>Are there ethical concerns about the way the study was done? <i>Consider consent, funding, privacy, etc.</i></p>	<p>No Study sample comprised of student teachers and materials were used as according to guidance and had been previously been used</p>
<p>Were students and/or parents appropriately involved in the design or conduct of the study? <i>Consider your answer to the appropriate question in module B.1</i></p>	<p>Yes. Student teachers used. Parents not applicable to research question</p>
<p>Is there sufficient justification for why the study was done the way it was? <i>Consider answers to questions B1, B2, B3, B4</i></p>	<p>Yes Yes materials chosen were evidence-based. Data analysis appropriate for answering research question</p>
<p>Was the choice of research design appropriate for addressing the research question(s) posed?</p>	<p>Yes, quantitative data using 4 surveys was collected. However, no control group or pre/post design</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data collection methods or tools? <i>Consider your answers to previous questions:</i> <i>Do the authors describe any ways they have addressed the reliability or repeatability of their data collection tools and methods (K7)</i></p>	<p>Some Study used standardised measures. Cronbach's Alpha Internal reliability= .80 for one scale on the TES and .65 for the other. For the ATIE 'adequate' reliability and validity are said to have been reported in a previous study</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of</p>	<p>No</p>

<p>data collection tools and methods? <i>Consider your answers to previous questions:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of their data collection tools/ methods (K6)</i></p>	<p>Study used standardised measures. Validity for ATIE reported to be 'adequate' from a previous study (Wilczenski, 1995). Nothing reported for TES though.</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? (L7)</i></p>	<p>Yes The data analysis procedures are detailed. One way ANOVAs and post hoc Scheffe's tests were carried out.</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of data analysis? (L8, L9, L10, L11)</i></p>	<p>Unknown No details about are provided</p>
<p>To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study? <i>e.g. (1) In an evaluation, was the process by which participants were allocated to, or otherwise received the factor being evaluated, concealed and not predictable in advance? If not, were sufficient substitute procedures employed with adequate rigour to rule out any alternative explanations of the findings which</i></p>	<p>Moderately Effects could have been mediated by researcher's briefing of study. No control group used- unknown whether differences are due to training programme or other factors. This is N/A to review Q.</p>

<p><i>arise as a result?</i></p> <p><i>e.g. (2) Was the attrition rate low and, if applicable, similar between different groups?</i></p>	
<p>How generalisable are the study results?</p>	<p>The participants were pre-service teachers in the United States all studying the same programme. The majority of them were white females; mean age =19.4.</p> <p>The study results are generalizable to that population only.</p>
<p>In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study?</p> <p><i>Please state what any difference is.</i></p>	<p>Not identifiable- no overall efficacy score given (which is what this review is concerned with). Both GTE and PTE split into positive and negative- this review not focussing on that</p>
<p>Have sufficient attempts been made to justify the conclusions drawn from the findings, so that the conclusions are trustworthy?</p>	<p>A little</p> <p>The authors recognise some limitations of their study in their discussion but only about sample size and pre-existing inclusive views of teachers. How to overcome these not mentioned</p>
<p>Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)?</p> <p><i>In some studies it is difficult to distinguish between the findings of the study and the</i></p>	<p>Moderately- low construct and internal validity. No info about external validity</p>

<p><i>conclusions. In those cases, please code the trustworthiness of these combined results/conclusions.</i></p>	
<p>Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review.</p>	<p>Low- efficacy tracked through training programme (not relevant to review Q), belief of diversity scale included in correlation between efficacy and inclusive attitudes so effect sizes calculated</p>
<p>Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for addressing the question of this specific systematic review</p>	<p>Low- no name given to sampling method; no post intervention tests/study lacks follow up design, no control group (internal validity low), no factorial structures analyses yet 4 questionnaires used (construct validity low)</p>
<p>Weight of evidence D: Overall weight of evidence <i>Taking into account quality of execution, appropriateness of design and relevance of focus, what is the overall weight of evidence this study provides to answer the question of this specific systematic review?</i></p>	<p>Low/medium</p>

EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Linlin (2007)

<p>Are there ethical concerns about the way the study was done? <i>Consider consent, funding, privacy, etc.</i></p>	<p>No Study sample comprised of teachers and parents and materials were used as according to guidance and had been previously been used</p>
<p>Were students and/or parents appropriately involved in the design or conduct of the study? <i>Consider your answer to the appropriate question in module B.1</i></p>	<p>Yes. Inclusion of students not applicable to research question and parents appropriately briefed</p>
<p>Is there sufficient justification for why the study was done the way it was? <i>Consider answers to questions B1, B2, B3, B4</i></p>	<p>Yes Yes materials chosen were evidence-based and justified in terms of testing hypotheses</p>
<p>Was the choice of research design appropriate for addressing the research question(s) posed?</p>	<p>Yes, quantitative data using 3 surveys was collected.</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data collection methods or tools? <i>Consider your answers to previous questions:</i> <i>Do the authors describe any ways they have addressed the reliability or repeatability of their data collection tools and methods (K7)</i></p>	<p>Yes Study used standardised measures. Cronbach's Alpha Internal reliability= .69 for one tool and .95 on the other. TSES scores were from another study.</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data collection tools and methods? <i>Consider your answers to previous questions:</i> <i>Do the authors describe any ways they have addressed the validity or trustworthiness of</i></p>	<p>Yes Study used standardised measures. Construct validity investigated via Factor Analysis using Varimax Rotation.</p>

<p><i>their data collection tools/ methods (K6)</i></p>	
<p>Have sufficient attempts been made to establish the repeatability or reliability of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? (L7)</i></p>	<p>Yes</p> <p>The data analysis procedures are detailed. Descriptive statistics, one way random effects ANOVA were used.</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of data analysis? (L8, L9, L10, L11)</i></p>	<p>Yes</p> <p>Statistically significant chi square values for confirmatory factor analyses; total variance explained by two factors via exploratory factor analyses was 54.32%.</p>
<p>To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study?</p> <p><i>e.g. (1) In an evaluation, was the process by which participants were allocated to, or otherwise received the factor being evaluated, concealed and not predictable in advance? If not, were sufficient substitute procedures employed with adequate rigour to rule out any alternative explanations of the findings which arise as a result?</i></p> <p><i>e.g. (2) Was the attrition rate low and, if applicable, similar between different groups?</i></p>	<p>A little</p> <p>Issues around accuracy of translation could exist and applicability of survey to chosen culture is not explored.</p> <p>Effects could have been mediated by researcher's briefing of study.</p>

<p>How generalisable are the study results?</p>	<p>The participants were mainly female teachers from 16 pre-schools in 2 provinces in Northern China. Both provinces have similar cultures and represents middle/upper income, education and expense.</p> <p>The study results are generalizable to that population only.</p>
<p>In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study?</p> <p><i>Please state what any difference is.</i></p>	<p>Not applicable (no difference in conclusions)</p>
<p>Have sufficient attempts been made to justify the conclusions drawn from the findings, so that the conclusions are trustworthy?</p>	<p>High trustworthiness</p> <p>The authors recognise the limitations of their study in their discussion and include a great deal of detail about how they tried to minimise reliability/validity risk factors.</p>
<p>Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)?</p> <p><i>In some studies it is difficult to distinguish between the findings of the study and the conclusions. In those cases, please code the trustworthiness of these combined results/conclusions.</i></p>	<p>trusted</p> <p>Good internal and construct validity.</p> <p>External validity- limited sample population</p>
<p>Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review.</p>	<p>High- one of the research Qs looking at relationship between efficacy and inclusive attitudes</p>

<p>Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for addressing the question of this specific systematic review</p>	<p>medium</p>
<p>Weight of evidence D: Overall weight of evidence <i>Taking into account quality of execution, appropriateness of design and relevance of focus, what is the overall weight of evidence this study provides to answer the question of this specific systematic review?</i></p>	<p>Medium/high</p>

**EPPI Centre Weight of Evidence (WoE) tool as used to evaluate
Sari, Celikoz, & Secer (2009)**

<p>Are there ethical concerns about the way the study was done? <i>Consider consent, funding, privacy, etc.</i></p>	<p>No Study sample comprised of teachers and materials were used as according to guidance and had been previously been used</p>
<p>Were students and/or parents appropriately involved in the design or conduct of the study? <i>Consider your answer to the appropriate question in module B.1</i></p>	<p>Yes- student teachers used</p>
<p>Is there sufficient justification for why the study was done the way it was? <i>Consider answers to questions B1, B2, B3, B4</i></p>	<p>Somewhat Yes materials chosen were evidence-based. Different sampling used for teachers and student teachers- no rationale given</p>
<p>Was the choice of research design appropriate for addressing the research question(s) posed?</p>	<p>Yes, quantitative data using 2 surveys was collected.</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data collection methods or tools? <i>Consider your answers to previous questions: Do the authors describe any ways they have addressed the reliability or repeatability of their data collection tools and methods (K7)</i></p>	<p>Yes Study used standardised measures. Cronbach's Alpha Internal reliability= .80 for ORMS and .93 for the TSEPS</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data collection tools and methods? <i>Consider your answers to previous questions: Do the authors describe any ways they have addressed the validity or trustworthiness of</i></p>	<p>some Study used standardised measures. No factor analysis/screen testing carried out for TSEPS</p>

<p><i>their data collection tools/ methods (K6)</i></p>	
<p>Have sufficient attempts been made to establish the repeatability or reliability of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? (L7)</i></p>	<p>Yes</p> <p>The data analysis procedures are detailed. Independent t-tests and regression analyses were used.</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of data analysis? (L8, L9, L10, L11)</i></p>	<p>No details provided</p>
<p>To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study? <i>e.g. (1) In an evaluation, was the process by which participants were allocated to, or otherwise received the factor being evaluated, concealed and not predictable in advance? If not, were sufficient substitute procedures employed with adequate rigour to rule out any alternative explanations of the findings which arise as a result?</i></p> <p><i>e.g. (2) Was the attrition rate low and, if applicable, similar between different groups?</i></p>	<p>A little</p> <p>Issues around accuracy of translation could exist and applicability of survey to chosen culture is not explored. No justification provided for differing sampling techniques employed with the 2 groups. Effects could have been mediated by researcher's briefing of study.</p>

<p>How generalisable are the study results?</p>	<p>The participants were pre-school education teachers enrolled in pre-school education department in X Faculty at X University in Turkey. All were female; mean age =33.4. The study results are generalizable to that population only.</p>
<p>In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study? <i>Please state what any difference is.</i></p>	<p>Yes- authors infer causality but reviewer found low correlation to be non significant</p>
<p>Have sufficient attempts been made to justify the conclusions drawn from the findings, so that the conclusions are trustworthy?</p>	<p>little Results justified with theory but the authors do not recognise the limitations of their study in their discussion.</p>
<p>Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)? <i>In some studies it is difficult to distinguish between the findings of the study and the conclusions. In those cases, please code the trustworthiness of these combined results/conclusions.</i></p>	<p>Moderately- authors infer causality but low correlation</p>
<p>Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review.</p>	<p>High- Even though no correlation for student teachers provided, the correlation for teachers was reported- positive- therefore sufficient to answer review question.</p>
<p>Weight of evidence C: Relevance of particular focus of the study (including conceptual</p>	<p>Medium- different sampling methods used for teachers and students. No rationale.</p>

<p>focus, context, sample and measures) for addressing the question of this specific systematic review</p>	<p>Translation issues??</p>
<p>Weight of evidence D: Overall weight of evidence <i>Taking into account quality of execution, appropriateness of design and relevance of focus, what is the overall weight of evidence this study provides to answer the question of this specific systematic review?</i></p>	<p>medium</p>

EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Weisel & Dror (2006)

<p>Are there ethical concerns about the way the study was done? <i>Consider consent, funding, privacy, etc.</i></p>	<p>No Study sample comprised of teachers and materials were used as according to guidance and had been previously been used</p>
<p>Were students and/or parents appropriately involved in the design or conduct of the study? <i>Consider your answer to the appropriate question in module B.1</i></p>	<p>Inclusion of students and/or parents not applicable to research question</p>
<p>Is there sufficient justification for why the study was done the way it was? <i>Consider answers to questions B1, B2, B3, B4</i></p>	<p>Yes Yes materials chosen were evidence-based</p>
<p>Was the choice of research design appropriate for addressing the research question(s) posed?</p>	<p>Yes, quantitative data using 2 surveys was collected though TES received many crits</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data collection methods or tools? <i>Consider your answers to previous questions:</i> <i>Do the authors describe any ways they have addressed the reliability or repeatability of their data collection tools and methods (K7)</i></p>	<p>Yes Study used standardised measures. Cronbach's Alpha Internal reliability= .97 for one tool and .86 and .77 for the subtests on the other. Consistency co-efficients 0.79 in Hebrew (Ayalon-Maor, 1994), and 0.86 present study.</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data collection tools and methods? <i>Consider your answers to previous questions:</i> <i>Do the authors describe any ways they have addressed the validity or trustworthiness of</i></p>	<p>Some Study used standardised measures. Construct validity quoted from 2 earlier studies (Woolfolk and Hoy, 1990; Ayalon-Maor, 1994).</p>

<p><i>their data collection tools/ methods (K6)</i></p>	
<p>Have sufficient attempts been made to establish the repeatability or reliability of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? (L7)</i></p>	<p>Yes</p> <p>The data analysis procedures are detailed. Pearson's correlation co-efficient and Regression Analyses were used.</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data analysis? <i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of data analysis? (L8, L9, L10, L11)</i></p>	<p>No details given</p>
<p>To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study?</p> <p><i>e.g. (1) In an evaluation, was the process by which participants were allocated to, or otherwise received the factor being evaluated, concealed and not predictable in advance? If not, were sufficient substitute procedures employed with adequate rigour to rule out any alternative explanations of the findings which arise as a result?</i></p> <p><i>e.g. (2) Was the attrition rate low and, if applicable, similar between different groups?</i></p>	<p>A little</p> <p>Issues around accuracy of translation could exist and applicability of survey to chosen culture is not explored.</p> <p>Effects could have been mediated by researcher's briefing of study.</p>

<p>How generalisable are the study results?</p>	<p>The participants were female teachers from schools serving middle/high socioeconomic status families in Israel.</p> <p>The study results are generalizable to that population only.</p>
<p>In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study? <i>Please state what any difference is.</i></p>	<p>No</p>
<p>Have sufficient attempts been made to justify the conclusions drawn from the findings, so that the conclusions are trustworthy?</p>	<p>yes</p> <p>The authors recognise the limitations of their study in their discussion.</p>
<p>Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)? <i>In some studies it is difficult to distinguish between the findings of the study and the conclusions. In those cases, please code the trustworthiness of these combined results/conclusions.</i></p>	<p>Moderately- construct validity: special needs construct not explored; diversity amongst SEN not acknowledged.</p>
<p>Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review.</p>	<p>Medium- no factors of self efficacy examined</p>
<p>Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for</p>	<p>Medium- external validity questionable (all female sample). Added variable of school climate.</p>

<p>addressing the question of this specific systematic review</p>	
<p>Weight of evidence D: Overall weight of evidence <i>Taking into account quality of execution, appropriateness of design and relevance of focus, what is the overall weight of evidence this study provides to answer the question of this specific systematic review?</i></p>	<p>medium</p>

EPPI Centre Weight of Evidence (WoE) tool as used to evaluate Ahsan, Sharma, & Deppeler (2012)

<p>Are there ethical concerns about the way the study was done? <i>Consider consent, funding, privacy, etc.</i></p>	<p>No Study sample comprised of student teachers and materials were used as according to guidance and had been previously used. University approved ethical guidelines followed</p>
<p>Were students and/or parents appropriately involved in the design or conduct of the study? <i>Consider your answer to the appropriate question in module B.1</i></p>	<p>Inclusion of student teachers- appropriately briefed</p>
<p>Is there sufficient justification for why the study was done the way it was? <i>Consider answers to questions B1, B2, B3, B4</i></p>	<p>Yes Yes materials chosen were evidence-based</p>
<p>Was the choice of research design appropriate for addressing the research question(s) posed?</p>	<p>Yes, quantitative data using 2 surveys (plus demographics) was collected.</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data collection methods or tools? <i>Consider your answers to previous questions:</i> <i>Do the authors describe any ways they have addressed the reliability or repeatability of their data collection tools and methods (K7)</i></p>	<p>Yes Study used standardised measures. Self efficacy measure (TEIP): Reliability = 0.89 Cronbach's alpha = 0.85 Efficacy to use inclusive instructions = 0.93 Efficacy in collaboration = 0.85 Efficacy in managing behaviour = 0.85 Inclusive views measure (SACIE): (Cronbach's alpha) Concerns = 0.63 Attitudes = 0.60</p>

<p>Have sufficient attempts been made to establish the validity or trustworthiness of data collection tools and methods?</p> <p><i>Consider your answers to previous questions:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of their data collection tools/methods (K6)</i></p>	<p>A little</p> <p>Study used standardised measures.</p> <p>No details provided about factors / validity etc.</p>
<p>Have sufficient attempts been made to establish the repeatability or reliability of data analysis?</p> <p><i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? (L7)</i></p>	<p>Yes</p> <p>The data analysis procedures are detailed. Regression Analysis used for demographic variables as predictors of self-efficacy, attitudes and concerns. Models have small effect sizes</p>
<p>Have sufficient attempts been made to establish the validity or trustworthiness of data analysis?</p> <p><i>Consider your answer to the previous question:</i></p> <p><i>Do the authors describe any ways they have addressed the validity or trustworthiness of data analysis? (L8, L9, L10, L11)</i></p>	<p>Unknown</p> <p>No details provided</p>
<p>To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study?</p> <p><i>e.g. (1) In an evaluation, was the process by which participants were allocated to, or otherwise received the factor being evaluated,</i></p>	<p>A little</p> <p>Issues around accuracy of translation could exist and applicability of survey to chosen culture is not explored. Also, cultural/societal factors between 6 different geographical areas/public and private educational institutes not acknowledged.</p>

<p><i>concealed and not predictable in advance? If not, were sufficient substitute procedures employed with adequate rigour to rule out any alternative explanations of the findings which arise as a result?</i></p> <p><i>e.g. (2) Was the attrition rate low and, if applicable, similar between different groups?</i></p>	<p>Differences in length of training courses outlined but not course content.</p> <p>Effects could have been mediated by researcher's briefing of study.</p>
<p>How generalisable are the study results?</p>	<p>Details</p> <p>The participants were pre-service in the final term / year an initial teacher training programme in Bangladesh. 61.1% female. Participants were attending different lengthed courses (some 4 years, some 1)- representative of pre-service teachers in Bangladesh</p>
<p>In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study?</p> <p><i>Please state what any difference is.</i></p>	<p>Not applicable (no difference in conclusions)</p>
<p>Have sufficient attempts been made to justify the conclusions drawn from the findings, so that the conclusions are trustworthy?</p>	<p>some</p> <p>The authors recognise one limitation to their study in their discussion.</p>
<p>Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)?</p> <p><i>In some studies it is difficult to distinguish between the findings of the study and the conclusions. In those cases, please code the</i></p>	<p>Moderately- limited validity information</p>

<p><i>trustworthiness of these combined results/conclusions.</i></p>	
<p>Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review.</p>	<p>High- concerns subscale provides additional information about teacher’s inclusive views. Additional correlations could have been calculated (i.e.origin of SEN with efficacy beliefs) but this was not specifically a review question- could have been included in results though</p>
<p>Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for addressing the question of this specific systematic review</p>	<p>medium- no factorial exploration into self efficacy. Good external validity</p>
<p>Weight of evidence D: Overall weight of evidence <i>Taking into account quality of execution, appropriateness of design and relevance of focus, what is the overall weight of evidence this study provides to answer the question of this specific systematic review?</i></p>	<p>Medium/high</p>

Appendix B: Interview Guide

Hi. Thanks for volunteering to participate in my research. I have a consent form for you to read and sign if you agree to everything it says. (Give form to participant.)

I will type up the interview and keep it with the recording in a locked cabinet in the LA offices.

You can withdraw your participation from the research at any time throughout the process.

Be assured that if this happens your data will be destroyed and not contribute to the study in any way. If you let me know once you're ready you can hand the form back and we'll start the interview. (Take form from participant)

If I could begin by asking you to state your job title please and any additional responsibilities you have within the organisation.

Question 1:

How do you feel about your ability to manage young people's behaviour in the classroom?

Question2:

Think of a time you felt able to manage a young person's behaviour well.

What helped you feel able to manage it?

Did anything from that experience lead to you feeling more able to manage behaviour now?

Question 3:

What helps you feel supported in managing young people's behaviour?

Question4:

Think of a time when you've not feel able to manage a young person's behaviour.

What happened?

What was it about the experience that contributed to you feeling unable?

Alternative question if any difficult to answer or generating repeated answers / examples:

If ever you've felt young people's behaviours in your class weren't as well controlled as you might like what has helped you become more successful?

Thank you for participating. Please remember you can withdraw your interview from the research at any stage.

Appendix C: Additional details for each paper used in the literature review

Paper	N	Groups	Sampling method
Linlin (2007)	346 teachers (336 female; 10 male) 16 pre-schools in 2 provinces in Northern China	Parents (N=597) Teachers (N=346)	Not specified
Weisel and Dror (2006)	139 teachers (100% female) 17 elementary schools, Israel	Grade school teachers	Random sample
Forlin (2010)	286 pre-service teachers (85% female) 3 cities in Mexico	Pre-service school teachers (75% studying regular school education programme; 25% enrolled in special education programme. All in final 2 semesters)	Convenience sample
Sari et al. (2009)	264 pre school teachers (99% female) 198 senior class pre-school teacher students (100% female) mean age 33.4 nursery schools/ primary school nursery classes,, Turkey	Pre-school education teachers pre-school education student teachers	Cluster sample
Gao and Magner (2011)	168 pre -service teachers female n=160	Pre-service teachers	Stratified sampling

	caucasian n=156 mean age 19.4 one inclusive teacher education programme, USA		
Ahsan, Sharma, & Deppeler (2012)	1, 623 final year / term pre-service teachers from primary (n = 890, 54.8%) and secondary (n = 733, 45.2%)	N/A	Not specified

Appendix D: Consent form

Following a conversation with Sarah-Jane Wooton, Trainee Educational Psychologist from Newcastle University, I agree to participate in her Doctoral research, which was explained in full orally. As a participant I will be asked about my views about managing children's behaviour in the classroom. The interview will be tape recorded. Recordings will be stored in a securely locked cabinet in the Local Authority offices, where they will remain until the final written project has been examined and approved.

I understand my right to withdraw from the research at any time and that my details and responses/ideas will remain anonymous. Confidentiality will be maintained at all times during any conversations Sarah-Jane may have with her research supervisor, or during the write up of the study. All results and implications will be fed back to the staff in a written report. I understand internal and external examiners will read a report of the research and that the finally approved thesis will become a publicly accessible document but that the thesis will not contain any information that could be used to identify any participants.

..... (signature)

..... (name)

..... (date)