

**QUEEN'S UNIVERSITY BELFAST  
SCHOOL OF SOCIAL SCIENCES, EDUCATION & SOCIAL WORK**

**DECLARATION OF ACADEMIC INTEGRITY**

**MEd/ MSc/ MSSc DISSERTATION SUBMISSION**

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**No. of words:** 14.140

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The Perceptions of Pre and In-service Teachers' Self Efficacy Regarding Inclusive Practices: A Systematised Review



by

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**A dissertation submitted as part of the requirements for the  
Degree of Master of Inclusion and Special Educational Needs  
in the School of Social Sciences, Education and  
Social Work,**

**Queen's University, Belfast,**

**September, 2018**

## Abstract

Pre- and in-service teachers' self-efficacy perceptions with regards to mainstreaming practices increase the quality of inclusive education. For this reason, this dissertation's fundamental purpose is to explore pre- and in-service teachers' perceptions of self-efficacy regarding inclusive practices, as assessed through employing the TEIP (Teacher Efficacy for Inclusive Practices) scale. In addition, predictors which affect their self-efficacy have been investigated directly through the results of studies conducted on the subject. This study was conducted by means of a systematised review. As pre- and in-service teachers' self-efficacy can influence the quality of inclusive education, the researcher investigated studies that have addressed this issue in-depth. Eight databases were searched during this study, and 24 peer reviewed articles in which the TEIP scale was used, from 2012 to 2018, were selected for inclusion. The perceptions of pre- and in-service teachers' self-efficacy towards inclusive education were examined through using the TEIP scale's three sub-dimensions, namely efficacy in collaboration (EC), efficacy in managing behaviour (EMB), and efficacy to use inclusive instructions (EII). The results show that the perceptions of pre- and in-service teachers' self-efficacy towards inclusive education are associated with teachers' field experience, age of teacher, level currently teaching, length of training, knowledge of local legislation, confidence in teaching significant interaction with disabled students, gender, level of education, different countries' perspectives, attitude and subject major. Pre- and in-service teachers' self-efficacy perceptions regarding inclusive education were highest in the EII subscale, and lowest in the EC sub-scale. At the end of the research, the most important predictor was found to be field experience for both pre-service and in-service teachers. This statement indicates that an increase in class experience of pre- and in-service teachers with students with special needs also raises their perception of self-efficacy towards inclusive practices.

**Key words:** Inclusive practices, Pre-service teacher, In-service teacher, Self-efficacy

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## **List of Abbreviations**

BRAC: Bangladesh Rural Advancement Committee

EC/CE/PP: Efficacy in Collaboration

EII/IE/II: Efficacy to use Inclusive Instructions

EMB/BE/DB: Efficacy in Managing Behaviour

EPs: Educational Psychologists

LSRT: Learning Support/Resource Teaching

SEN: Special Educational Needs

TEIP: Teacher Self-Efficacy for Inclusive Practices

TTS: Self-Efficacy for the Total Scale Score

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## **Acknowledgement**

I owe special thanks to my supervisor, Dr Sarah Miller, for the great knowledge, patient guidance, encouragement, and advice which she has provided during my dissertation period. I must express my gratitude to Dr Miller, as she cared so much about my study, and responded to my questions and queries rapidly.

Finally, I would like to thank my whole family for always supporting me in every way. Special appreciation goes to my mother, Songul Tumkaya, and my father, Ahmet Tumkaya, for their almost unbelievable support, even from miles away. Nobody has been more important to me in the pursuit of this research than the members of my family. They are the most important people in my world, and I dedicate this thesis to them. I am very grateful to my dear friend Sarah O'Donnell and her husband, John for all their supports. Last but not least, I wish to thank my loving and supportive life partner, Mert Kaval, for his unflagging support.

## **Chapter 1**

### **Introduction**

#### **1.1 Introduction**

Inclusion practice is based on the reality that all children vary in a number of aspects which is not restricted to their handicap and that educational institutions have to adapt their practices according to the children's needs (Kinsella and Senior, 2008; Oliver, 1990). The perspective of inclusion suggests that if a student encounters a challenge, it is related to school practices rather than the child as there are many schools that aim to meet student needs. Implementation of inclusive education requires effort and meaningful improvements in the manner in which teachers practise teaching in the classroom. Inclusive education does not only mean that children who have learning difficulties take lessons in normal education classes. Researchers state that placement is only one aspect of inclusion (Winter, 2006). It is related to the feature of school experience, as well as to what degree students are supported to achieve at school life (DfES, 2004, p12).

Teacher training based programmes are responsible for equipping novice teachers with skills and knowledge to include all students irrespective of individual differences (Winter, 2006). One of the effective ways to determine if pre-service instructors are ready to encounter this hardship is to inquire their conceived self-efficacy to represent inclusive applications.

For Bandura (1997), instructors' conceived efficiency impacts not only the surrounding that instructors generate for the learners but also their evaluations as regards to the multiple teaching approaches they might adopt to enhance student learning. Within the framework of this inclusive teaching scheme, an instructor with higher self-efficacy in representing mainstreaming applications would assume that children with specific requirements might be efficaciously taught in an arranged classroom, compared to a teacher with poor self-efficacy towards inclusive education. This theory indicates that teachers' perceptions of competence are closely related to their attitudes and behaviours towards students with special needs (Tschannen-Moran et al., 1998). Gibson and Dembo (1984) stated that there is a significant difference between the teaching applications of high productive and low productive instructors.

Teachers who have perceptions of high self-efficacy tend to persist with unsuccessful students and use more effective teaching strategies (e.g. more tolerant with false responses, better questioning) that help such low-achieving students to learn more functionally. Instructors having low self-efficacy, on the other hand, tend to spend more effort on non-academic practices and use less efficient teaching strategies, which can restrict student learning. Some other researchers in the related field have also seen that instructors with high self-efficacy are inclined to employ more practical teaching methods (Chan, 2008) and humanistic approaches (Woolfolk Hoy et al., 1990). Thus, the teacher with high efficacy might be considered as an important component necessary to form brilliant inclusive classroom settings. A few researchers have pointed out that it is unlikely for the education reforms to be successful unless they address teacher efficacy (DeMesquita and Drake, 1994; Sarason, 1990).

The efficiency of instructors is also based on the improvements of the approaches to instructing in inclusive settings. In a previous detailed study about anticipating instructors' approaches to inclusion, Soodak *et al.* (1998) hinted on instructors' self-efficacy as one of the most dominant anticipators of instructors' approaches to inclusion. It was also understood that instructors with poor self-efficacy showed anxiety and were reluctant to include learners with specific requirements. Similarly, Weisel and Dror (2006) inquired the school organisation impact, educational climate, and the perception of self-efficacy by using the Teacher Efficacy scale on teachers' attitudes. The researchers discovered that the conception of instructor self-efficacy was the single best predictor of their attitudes regarding inclusion. Furthermore, instructors who conceived a more positive school atmosphere which entails qualities such as complementary leadership, cooperative planning and self-determination are more likely to develop more positive approaches to inclusion. Almog and Shechtman (2007) found out that there were positive relationships between instructors' democracy perceptions, efficacy, and strategies to cope with learners who show behavioural matters. Many studies, such as Sharma *et al.* (2008), Forlin *et al.* (2009) and Sharma *et al.* (2009) have investigated the many variables that affect pre-service teachers' positive attitudes towards inclusive practices. These variables include the frequency of communication with students with disabilities, information about the local rules and policies, and

esteem level. The researchers highlighted that esteem in instructing in inclusive settings to be the sole best predictor of participants' attitudes.

Studies in different specialisation areas have demonstrated that self-perceptions of individuals' confidence and competence facilitate the link between the training received and how the practitioners utilise the currently attained knowledge and skills (Das et al., 2013; Leyser et al., 2011). Previous research also indicates that teachers' self-efficacy towards inclusion affects learners' success and attitudes, instructors' approaches and their classroom leadership competency (to a great extent) (Ahsan et al., 2012; Gibson and Dembo, 1984; Tschannen-Moran and Hoy, 2001). Recent studies have shown mixed results in terms of the levels of teacher's efficacy beliefs, with both high (e.g. Savolainen et al., 2012; Shaukat et al., 2013) and low levels of efficacy being reported (e.g. Yada and Savolainen, 2017).

Teacher self-efficacy affects the type of setting that instructors generate for the learners, besides the types of instructional strategies they employ in the classroom (Bandura, 1997). It is more probable for teachers having much self-efficacy to create environments that increase learning for all students, spend more time on instruction, and give more assistance when dealing with students (Holzberger et al., 2013), all of which are components which are needed for successful inclusion (Guo et al., 2014; Malinen et al., 2012; Savolainen et al., 2012). As the place of teacher productivity has been discovered to be a significant element in successful inclusion settings (Guo et al., 2014; Savolainen et al., 2012; Malinen et al., 2012), it is crucial to investigate further how to promote teachers' self-efficacy when it comes to preparing teachers for success in inclusive classrooms.

The problem is that although teachers' self-efficacy beliefs have been related to positive student outcomes (Ying et al., 2012) and teacher effectiveness (Gibbs and Powell, 2012), there is still a gap in our understanding of how self-efficacy is built in teachers, and it is necessary that all teachers are prepared to teach and accommodate special needs students in their classrooms (Causton-Theoharis et al., 2011). High teacher self-efficacy levels are a meaningful element for all teachers to have, whether they teach special education or general education (Lee et al., 2011). The specific problem is that the success of general education teachers regarding inclusive practices

may be low. As teachers do not have sufficient self-efficacy levels to provide the success of such a programme (McCray and McHatton, 2011), the inclusion setting is unsuccessful. As a result, students with special needs might not benefit academically in an inclusive educational setting (Sharma et al., 2012).

Inclusive education has become an important trend in recent years. Many developed countries such as the United States of America, the United Kingdom, Australia and Canada have legislation underlining the importance of inclusive education practices for instructing learners with different requirements in classrooms. Likewise, a number of progressing countries have developed legislations which aid the wider principles of inclusive teaching to equip pupils with specific needs (Kuyini and Desai, 2007; Wu-Tien et al., 2008). This transformation in students' needs at the classroom level during this time period has also made it a necessity for higher education to alter their instructor education methods (Nougaret et al., 2005).

In the current project, pre- and in-service teachers' perceptions of self-efficacy towards mainstreaming practices and the factors which influence them will be investigated through a systematised review. It is anticipated that this research - in the context of the presented and discussed data - will be useful in directing future research and providing information about in-service training programmes.

## **Chapter 2**

### **Literature Review**

The literature review starts with a brief definition of special and inclusive education and the historical background of inclusive education. It continues with a discussion of the benefits of inclusive education, the problems encountered in mainstreaming practices, teacher self-efficacy, and the determinants that affect pre- and in-service teachers' self-efficacy towards inclusive learning.

#### **Literature Review**

Inclusive education, which is adopted by the Salamanca Statement and Framework for Action on Special Needs Education, acknowledges the right of all children to education, supporting the fundamental principles of growing attendance, fair-minded acceptance, accessing, award and encouragement, in order to meet the requirements of all learners (UNESCO, 1994). Including students who have different educational needs in mainstream schools plays an important role in terms of education policy and a broad vision around the world.

#### **2.1 Special Education**

According to the Education for Persons with Special Educational Needs (EPSEN) Act, applied in Ireland, special educational needs (SEN) are identified as a restriction in the ability of the individual to take part in and benefit from education. This is due to a lasting physical, sensory, mental health or learning disability. Following the Special Educational Needs and Disability (SEND) Code of Practice (2014), which is implemented in the UK, if a child has a SEN statement and their learning difficulty or disability is supposed to receive special educational provision, his or her educational circumstances will include diversity and additional services compared to his or her peers (Nasen, 2014). According to the Framework for Action on Special Needs Education (1994), schools should embrace all pupils regardless of their physical, mental, social, sensory, linguistic or other conditions. In this regard, the concept of SEN refers to all those pupils and youths whose needs originate in disabilities or learning difficulties (UNESCO, 1994).

## **2.2 Inclusive Education**

The movement of inclusive education has been approved internationally by UNESCO's Salamanca Statement (UNESCO, 1994), and represents the United Nation's global strategy of 'Education for All' (Farrell and Ainscow, 2002). According to Article 24 of the Convention on the Rights of Persons with Disabilities, inclusive education is based on the principle that all children should learn together, wherever possible, regardless of their differences (Lattanzio et al., 2015). Inclusive education is one of the important issues that should be investigated in today's world, as it has the potential to make a positive contribution to all students, teachers and families. According to the Northern Ireland Audit Office, the number of individuals with special needs in Northern Ireland has increased by 13% since the period 2011 to 2012. The percentage of children with SEN has grown from 16.1 percent in 2011 to 17.4 percent in 2016, as a proportion of total school enrolments in Northern Ireland, whereas in England the percentage continues to decline from 17.8 percent in 2011 to 11.6 percent in 2016. According to the Department for Education's (England) statistical release in 2015, the reason for the decrease in numbers in England might be a result of the 2010 Ofsted SEND review, which found that a quarter of all children identified with SEN, and half of the children at School Action, did not have SEN (NIAO, 2017).

Alongside an increased awareness of special education, inclusive education is spreading rapidly, and has been established as an important policy with regards to respecting children with disabilities, in order to accommodate increased access to regular or mainstream schools (Thorpe and Azam, 2010). Declarations and reports from United Nations agencies (United Nations Educational, Scientific and Cultural Organization, 2005; United Nations Children's Fund, 2000) and other international agencies (e.g. European Agency for the Development of Special Needs Education, 2006) have motivated countries all around the world to revise their education policies in line with inclusive education and to address exclusion and marginalisation.

### *2.2.1 Historical Background of Inclusive Education*

Initially, the movement of inclusive education was centred principally on individuals with learning difficulties and disabilities. This is reflected in the literature,

and lots of legislative documents. Recently, the notion of inclusion has been extended to include those in danger of marginalisation or exclusion on any grounds. It may be considered as an approach which refers to ‘obstacles to learning and attendance’, and ensures the use of ‘resources in order to promote learning and attendance’ (Ainscow et al., 2006). This support is seen as all activities, including those which are considered to be either superfluous or co-curricular, raising the school’s capacity to cater for diversity (Booth and Ainscow, 2002). Some of these causes of exclusion are related to gender, ability, ethnicity, language, race, socioeconomic and care status, sexuality, disability or religion (Gerschel, 2003). Many of these elements affect each other, and may eventuate in marginalisation or exclusion. Concentrating on a single issue, such as disability in isolation, has the potential to result in erroneous assumptions (Topping and Maloney, 2005), by means of leaving aside other marginalised groups such as students with low economic status or international students in the class. In this regard, inclusion policies should not be limited purely to pupils’ defined as having SEN (Booth and Ainscow, 1998). This standpoint is represented in Ofsted’s suggestion to schools in the UK, in which attention is focussed on a great number of vulnerable or at risk groups. This signpost points out that inclusion in an educational setting involves more than dealing with one group of children such as those having been - or who are as likely as not to be - marginalised from school. It is associated with equal opportunities for all pupils and youths regardless of their age, gender, ethnicity, attainment or background (2000, p1). The Additional Support for Learning Act, enacted in Scotland in 2004 (Scottish Executive, 2004), has also embraced this broad definition of inclusion and changing the restricted SEN concept, as well as ‘additional support for learning’. The viewpoint is that any or all learners can be in need of some form of additional support for a range of different reasons at some point in their school career. Some authors, however, are wary of this approach, and have stated concerns that this wide notion of inclusion is liable to result in the needs and requirements of SEN pupils and other at risk groups being overlooked (Farrell, 2004). It is important to note that the cumulative proficiency advanced in the field of special education does not disappear in this all-encompassing approach (Norwich, 2002). The counter-argument is that pupils and youths are not described only by their SEN; other aspects of their lives, such as social disadvantage, family background, gender or ethnic group, also play an important role in understanding

a child's needs and supporting the whole child (Farrell, 2003). Slee considers what is symbolised as the SEN agenda, requires to articulate throughout all forms of educational exclusion to reconsider the requirements for inclusive schools of the future. He suggests that 'the discussion of inclusive schooling must therefore reconnect itself to the educational policy environment writ large and to an understanding of the specificity of schools and their communities' (2001, p118). He also states that inclusive education is not only for the students with special needs, but it also for all students (2001). Inclusive education, supported by legislation and the successful implementation of special education services, has many benefits for typically developing children, their families and teachers as well as the students with special needs.

### *2.2.2 Benefits of Inclusive Education for Children with Special Educational Needs*

Participating in similar activities as their peers can increase the desire of students with special needs to be successful in various fields (La porta et al., 1996, cited in Şahbaz, 1997), and can help children with special needs acquire behaviour that enhances their social acceptance (Atay, 1995). Moreover, if students with special needs and typically developing individuals are all together in the same environment, this situation will positively contribute to the development of special needs individuals and their socialisation skills (Metin, 1992). This is because the most important factor that negatively affects the social competence of children with special needs is that these children receive segregated special education. As a result, these children are deprived of age-appropriate social experiences, since they do not experience appropriate peer models (Tirella et al., 2006). Research has shown that the interactions among children with disabilities and typical development have facilitated their understanding of other children's thoughts, feelings and intentions (Innes and Diamond, 1999). Inclusive education offers opportunities for children with learning disabilities by observing their developmentally advanced peers, and it can be effective in achieving social competence and minimising problem behaviours (Guralnick, 1990). Thus, the social interaction of children with special needs with their peers will increase their ability to make friendships (Guralnick, et al., 1995).

### *2.2.3 Benefits of Inclusive Education for Typically Developing Children*

Inclusive education is also helpful for children with typical development, as well as for those with special needs. By virtue of inclusive education, typically developing children learn positive information about their peers with special needs (Kırcaali-İftar, 1998), get along well with them, and accept their individual differences more easily (Eripek, 1986; Metin, 1992; Şahbaz, 1997). Furthermore, inclusive education not only provides typically developing students with the ability to become leaders, but it also helps to develop the moral sentiment of normally developing children towards their peers with disabilities (Darıca, 1992). This is because students with normal development may learn to respect individual differences via inclusive education. Thence, they can become aware of their own inadequacies and try to compensate by accepting them. Moreover, typically developing children might show a decrease in aggression, jealousy, and the lack of self-confidence. The understanding of unconditional acceptance, tolerance and assistance towards people with disabilities develops. Finally, typically developing students' leadership skills will also increase as they help their peers with special needs (Arslan, 2010).

### *2.2.4 Benefits of Inclusive Education for the Families with a Child with Special Needs*

The success and failure of a child affects the behaviours and anticipations of the family members towards the special needs child. For this reason, the expectation level of the family of the child with special needs begins to develop in conformity with the capacities of the children (Battal, 2007).

When we consider the benefits of inclusive education for families who have a child with special needs, it can be seen that parents can have a better understanding of their children's interests and needs, as they will have an idea of how to help their children with well-organised inclusive education. As inclusive education influences families' expectations regarding their children with special needs in a positive way, families' expectations of children with special needs begins to be consistent with the capacities of their children (Battal, 2007). Thus, with inclusive education, parents will know the characteristics of their children and accept them as they are. Finally, inclusive education helps families to communicate and collaborate with the families of other

special needs children (Uğurlu, 1987). In this way, they may enjoy cooperation with their children's cognitive and social skills needs.

#### *2.2.5 Benefits of Inclusive Education for Teachers*

Teachers working with children with special needs can take advantage in terms of meeting the needs of typically developing children by applying special education techniques (Şahbaz, 1997). In an effective inclusive practice, direct instruction teaching, discovery learning and collaborative learning are methods which play an important role. With the use of these methods, a teacher contributes to the development of positive attitudes among children towards each other by conducting group work. Moreover, teachers practicing mainstreaming tend to be more successful in terms of unconditional acceptance, tolerance, patience and respect for students with special needs and their normally developed peers (Göksu, 2004). Finally, inclusive education may contribute to teachers' development of their own teaching skills, professional experience, and acceptance of individual differences (Akkoyun, 2007). This is because teachers can improve their student assessment methods in order to become more successful in preparing and implementing individualised training programmes. Additionally, it will be quite helpful for teachers in terms of their development of behaviour regarding unconditional acceptance, tolerance, patience, and respect for individual traits.

#### *2.2.6 The Problems Encountered in Mainstreaming Practices*

The problems experienced in inclusive education practice affect both teachers' perceptions of self efficacy and the success of inclusion. Firstly, the inadequacy of teachers' pedagogical knowledge and classroom management can cause some problems, not only for teachers but also for all students. Pedagogical knowledge refers to how teachers perceive themselves as adequate in designing learning tasks to integrate students with disabilities in the classroom, using many assessment strategies in accordance with the level of the children, supplying appropriate challenges from student to student, or providing an alternative explanation or example in accordance with the age and level of children (Sharma et al., 2012). Besides pedagogical knowledge, classroom management also plays an important role in effective inclusive practice. Classroom management techniques that teachers can utilise include: providing classroom arrangement, organising the physical environment of the class, preparing a

daily schedule, determining teaching methods, making a plan to reinforce appropriate behaviours, determining and applying class rules, and finally knowing and using appropriate forms of communication (Sucuoglu et al., 2004). Secondly, the teacher needs to know the individual requirements and differences of the learners in order to create an effective inclusive environment in this framework. Moreover, the number of students in the class, the range of different ages and levels, preparation and implementation of individualised education programmes (IEP), the physical structure of the school, and the difficulty of getting in touch with family and the school principal also play an important role in terms of teachers' perceptions of self efficacy to achieve effective mainstreaming practices in the classroom by including all learners (Karasu and Mutlu, 2014).

### *2.2.7 The Effective Factors in Successful Mainstreaming Practices*

‘An inclusive school is a place in which people belong, are accepted, supported by their counterparts, and other school community members throughout having their educational needs met’ (Stainback and Stainback, 1990). Teachers' perceptions regarding their responsibilities for student learning appears to be an important factor that impacts inclusion, and might differ across general and special education teachers. Additionally, several studies have suggested that training in and experience of the philosophy of inclusion, special education in general, and practices with regards to inclusive education positively correlate to teachers' attitudes (e.g. De Boer et al., 2011). Teachers' perceptions of self-efficacy, which are related to their ability to teach in inclusive settings, seem to be similarly correlated. Teachers generally report that a deficiency of training (both pre-service and in-service) leads to their lack of self-confidence (Wilkins and Nietfeld, 2004). In contrast, teachers who feel confident in their ability to include all students frequently identify their experiences and training in special education as factors that gain favour in this positive attribution (Lohrmann and Bambara, 2006).

## **2.3 Self-Efficacy**

Self-efficacy perception has a significant role in the success of mainstreaming practices. For Bandura, self-efficacy is the provision of an ability to realise a performance asked for (2006b). Social cognitive theory which self-efficacy is based on

argues that individuals can control their self-improvement and life conditions, although several items depend on chance to some extent (Bandura, 2006a). In the past decade, instructors' efficacy assumptions have become important as an issue of self-efficacy inquiry, and Klassen *et al.* (2011) reported a considerable upgrade in the the number of research on teacher self-efficacy conducted between 1986 and 2009. An important basis of this issue might be its cyclical characteristics: greater self-efficacy beliefs are regarded as a consequence of major practices by teachers, which in response contributes to more efficient performances that provide data for forming higher efficacy measures. Research points out that teacher self-efficacy is a multi-faceted practice regarding a variety of cultural contexts. Teacher self-efficacy facets have often been associated with teaching, student motivation, and classroom management, and recently, collaborating with other teachers in diverse studies (Tschannen-Moran *et al.*, 1998).

Forlin (2004) has argued that teachers' sophistication and competence, along with their attitudes and beliefs, are crucial in terms of developing inclusive practices, and, in many cases, teachers feel underprepared to cope with matters of diversity in their classrooms. It is suggested that teachers' beliefs and attitudes have an important place in the success of inclusive education and practice (Sharma *et al.*, 2008). According to Bandura (1993), perceived self-efficacy beliefs affect individuals' thoughts, motivations, emotions and choices. Following Bandura (1997), teachers' self-efficacy beliefs influence both the learning environment which they create for their students and their evaluations of the different activities that their students will undertake to facilitate their learning. From this point of view, it is expected that teachers with a high level of competence in mainstreaming practices will believe that SEN students can learn effectively in general education classes with their normally developing peers (Lindsay, 2003). On the contrary, teachers with low belief and competence with regards to inclusive education may think that there is limited ability to involve SEN students in the classroom. As a consequence, teachers might ignore special needs students and not include them in learning activities. Hence, teachers' beliefs in regard to mainstreaming can be an important variant of mainstreaming practices. Since qualification is an enhanceable feature, with the training and support provided to teachers (Al-Darmaki, 2004), the studies which have been done related to this subject can be considered essential.

## **2.4 Teacher Self-Efficacy in General Related to Inclusive Practices**

Teacher self-efficacy refers to a teachers' assumptions as to their own skills to arrange and perform required actions to fulfil successfully a specific educational task (De Oliveira Fernandez et al., 2016; Tschannen-Moran et al., 1998). Teacher self-efficacy identifies the quantity of effort and time which teachers need to spend, and how she or he overcomes obstacles, challenges and failures (Almog and Shechtman, 2007; Klassen et al., 2009; Tschannen-Moran and Woolfolk Hoy, 2001). Self-efficacy of teachers is also associated with teachers' beliefs in her or his abilities in order to impact students' learning in a positive way (Bandura, 1997; Guskey and Passaro, 1994; Klassen et al., 2009), besides teachers' beliefs in the inspectability and revisability of the environment (Almog and Shechtman, 2007). Teacher self-efficacy influences teachers' instructional practices, behaviour, commitment, persistence and enthusiasm (Skaalvik and Skaalvik, 2007; Tschannen-Moran and Woolfolk Hoy, 2001; Wolters and Daugherty, 2007). Woolfolk Hoy and Spero (2005) state that teacher efficacy is shaped early in pre-service experience and the first years of teaching, and afterwards it remains constant.

There are several advantages of powerful teacher self-efficacy (Ross and Bruce, 2007; Tschannen-Moran and Woolfolk Hoy, 2001). Teachers with strong self-efficacy aim for higher targets both for themselves and their students, and strive to achieve these purposes. Additionally, they insist upon challenges compared to teachers who have low self-efficacy (Ross and Bruce, 2007; Tschannen-Moran and Woolfolk Hoy, 2001). Teacher's persistence leads to increased student achievement, motivation and self-efficacy (Bandura, 1997; Ross and Bruce, 2007; Skaalvik and Skaalvik, 2007; Tschannen-Moran and Woolfolk Hoy, 2001; Wolters and Daugherty, 2007). Teachers who have high self-efficacy build mastery experiences for their students (Bandura, 2005), and participate better in terms of low ability learners' needs (Ross and Bruce, 2007).

In other respects, teachers' low self-efficacy might be associated with a pessimistic opinion of student learning, and teachers with low self-efficacy can experience more challenges with student misbehaviour besides experience, lower degrees of occupational contentment, and higher degrees of occupational stress (Bandura, 1997; Caprara et al., 2003; Caprara et al., 2006; Klassen et al., 2009; Lee et al., 1991).

Teachers with low self-efficacy with regards to achievement will avoid expending effort, as failure after striving mightily is dangerous for self-esteem (Ross and Bruce, 2007; Tschannen-Moran and Woolfolk Hoy, 2001).

Self-efficacy expectations are centered upon on four major sources of information: performance accomplishments or mastery experiences; vicarious experience or social modeling; verbal or social persuasion; and physiological or physical and emotional states (Bandura, 1977, 2012). Mastery experiences symbolise individuals' own achievements. Building resilient self-efficacy through mastery experiences requires dealing with different difficulties through permanent effort, as effortless progress might risk getting easily discouraged by failures and setbacks (Bandura, 2012). Vicarious experience (social modeling) means monitoring others similar to oneself performing threatening activities, and that observation might enhance the beliefs in the observer's own capabilities (Bandura, 1977, 2012). Social (verbal) persuasion occurs when people are convinced to believe in themselves, which can make them more persistent when they encounter obstacles (Bandura, 2012). Bandura (1977) suggests that efficacy expectations derived from one's own achievements are stronger than those that develop from modeling and verbal persuasion. Physical and emotional states as sources of self-efficacy may strengthen efficacy beliefs by building physical strength and stamina and reducing anxiety and depression (Bandura, 2012). In light of the four principle sources of self-efficacy (Bandura, 1977), the significance of each source can be diversified at different times of a person's career and in diverse cultures (Klassen et al., 2011). Tschannen-Moran and Woolfolk-Hoy (2007) state that mastery experiences are the most effective factors among the four resources of instructors' self-efficacy. Nevertheless, there are some variations between inexperienced teachers and experienced instructors. For example, for inexperienced teachers, when minor mastery experiences exist, positive modelling and social encouragement from other people in the teaching context might be particularly necessary for developing self-efficacy (Tschannen-Moran and Woolfolk Hoy, 2007). In Tschannen-Moran and Woolfolk Hoy's (2007) study, contextual elements such as interpersonal support and teaching resources have a place in unpractised teachers' self-efficacy beliefs in comparison to experienced teachers' self-efficacy beliefs. When the mastery experience of teachers increases, the other three self-efficacy sources will improve as well.

Klassen *et al.* (2009) found out that to build teachers' self-efficacy, opportunities should be provided for teachers in terms of accomplished experience, positive modelling from successful peers and verbal encouragement. Leyser *et al.* (2011) state that for pre-service teachers, a combination of teaching experience associated with constructive feedback, recommendations and collaboration with teachers, and university supervisors and peers, is the most substantial baseline from which to develop self-efficacy. Yet, cognitive functions and reflective thinking are required in the interest of any experience to impact one's self-efficacy (Bandura, 1977). Tsakiridou and Polyzopoulou (2014) argue that teachers should take part in decision making processes with regards to the educational policies of schools in order to enhance teachers' efficacy.

For Tschannen-Moran and Woolfolk Hoy (2007), the school climate can also be associated with teacher self-efficacy. Additionally, following Skaalvik and Skaalvik (2010), teacher self-efficacy is mutually and positively related to teachers' relationships with parents. Moreover, the school principal's leadership has been linked with teacher self-efficacy. In schools where the principal was capable of giving inspiration to the teachers and where there was little student disorder, teacher self-efficacy tended to be greater. In addition, being able to be involved in the decision making processes that influence teachers' work conditions affects teachers' self-efficacy beliefs (Tschannen-Moran and Woolfolk Hoy, 2007).

#### *2.4.1 Pre-service Teachers' Sense of Domain-Specific Self-Efficacy Relates to Inclusive Practices*

Several studies have been carried out in order to understand how teacher preparation programmes are effective in promoting teaching skills for pre-service teachers in inclusive education settings. Research shows that a single course focussed on inclusion seems to be the most widespread delivery model (Gao and Mager, 2011; Harvey *et al.*, 2010; Holland *et al.*, 2008; Lancaster and Bain, 2010; Voltz, 2003). Since this is the prevalent instructional delivery format, it is important to explore the impression such courses leave on pre-service teachers' sense of self-efficacy with regards to teaching in an inclusive classroom. It has been suggested that teacher preparation programmes should deal with building positive approaches to inclusion and learners having specific needs (Forlin *et al.*, 2009; Shippen *et al.*, 2005). A positive

attitude is a vital characteristic for pre-service teachers to possess in order to educate students with disabilities effectively, whereas it has also been stated that positive attitudes generally do not result in feeling prepared to teach in an inclusion setting (Alghazo et al., 2003; McHatton and McCray, 2007; Peebles and Mendaglio, 2014; Shippen et al., 2005). Even though most pre-service teachers believe that inclusion is a useful placement for students, they continue to be anxious about their own capability to work in an inclusive classroom (McHatton and McCray, 2007), demonstrate apprehension about educating students with disabilities (Jobling and Moni, 2004; Shippen et al., 2005), and report that their preparation was not enough for them to teach in such an environment (Cook, 2002; Lancaster and Bain, 2010). Despite the fact that teacher preparation programmes usually impact pre-service teachers' self-efficacy beliefs in respect of inclusion, such preparation does not seem to be sufficient for them to feel ready to teach in an inclusive setting (van Dinther et al., 2011). A feasible cause for this finding is that preservice teachers report that many single introductory inclusion courses are inclined to highlight theory over practice (Lancaster and Bain, 2010; Peebles and Mendaglio, 2014). To better understand how an introductory special education course impacts preservice teachers' self-efficacy beliefs toward teaching in an inclusive class, further exploration should be carried out on other factors that influence preservice teachers' self-efficacy development.

## **2.5 Factors that Influence Preservice Teachers' Sense of Self-Efficacy**

With the purpose of better comprehending the improvement of pre-service teachers' self-efficacy with regards to teaching in an inclusive classroom, many researchers have proposed studying the personal and instructional factors. These studies referred to pre-service teachers in order to reveal a better understanding of how these elements impact preservice teachers' self-efficacy beliefs (Tschannen-Moran et al., 1998). Broadly, the findings across these studies have resulted in inconsistent results. According to Leyser *et al.* (2011), these inconsistencies might be attributed to cultural, programmatic and sampling variations in teacher preparation programmes and between studies. In order to understand how such elements affect preservice teachers' sense of self-efficacy regarding teaching in an inclusive classroom, teacher preparation programmes need to accommodate instruction that encourages self-efficacy development. The following factors are discussed due to their prevalence in the self-

efficacy and pre-service teacher literature: gender, major, academic achievement, prior experiences regarding people with disabilities, and coursework.

### *2.5.1 Gender*

Some studies have found that male teachers maintain less positive attitudes with regards to teaching students with disabilities in an inclusive setting (Garriott et al., 2003; Park and Chitiyo, 2011; Romi and Leyser, 2006; Shippen et al., 2005). On the contrary, El-Ashry (2009) investigated the perspectives of 1,625 Egyptian elementary and secondary preservice teachers' towards disabled students. He stated that male pre-service teachers have more positive attitudes with regards to the inclusion of students with special needs compared to female pre-service teachers. Moreover, a study conducted by Forlin *et al.* (2009) regarding a pre- and post-training comparison study involving general education preservice teachers from Australia, Canada, Hong Kong and Singapore, used a pre- and post-survey design to show that even though males began with more negative attitudes, at the end of the course they had more positive attitudes compared to females. Other researchers suggest that there is not a statistically meaningful difference between males and females when it comes to their attitudes regarding inclusion or students with disabilities (Alghazo et al., 2003; Parasuram, 2006). In conclusion, the evidence from different studies has shown mixed results in terms of the gender factor.

### *2.5.2 Major*

Many researches have discovered that secondary pre-service instructors had more adverse feelings toward inclusion and students with disabilities compared to their elementary and special education counterparts (Alghazo et al., 2003; Avramidis et al., 2000; McHatton and McCray, 2007). One longitudinal study, conducted with 193 Australian secondary pre-service teachers, revealed that the teachers possessed positive attitudes related to inclusion, but their positive attitude dramatically decreased as they progressed through their years of study. One potential explanation for this is that as the pre-service teachers progressed in their programme, they gained experience and knowledge concerning the teacher's responsibilities, and actualised the inadequacies in their training (Costello and Boyle, 2013).

### 2.5.3 *Prior Experience*

A partially consistent finding in the literature is that preservice teachers with prior mastery or vicarious experiences with people having disabilities feel more efficacious in the sense of working in an inclusive setting (Forlin et al., 1999; Forlin et al., 2010; Hamre and Oyler, 2004; Romi and Leyser, 2006; Tait and Purdie, 2002). There are several studies indicating the positive influence of prior experience on pre-service teachers' self-efficacy beliefs toward inclusion, whereas another study conducted by Forlin *et al.* (2009) revealed that prior experience does not affect pre-service teachers' degree of comfort in terms of contact with people who have disabilities. In a similar vein, Lancaster and Bain (2007, 2010) found that there are exceptions to the idea that prior experience with disabled people makes a huge contribution to pre-service teachers' self-efficacy beliefs toward inclusion. For instance, Marshall *et al.* (2002) found no meaningful relationship between pre-service teachers' prior experience and their approaches with regards to students with disabilities. Similarly, Alghazo *et al.* (2003) noted that pre-service teachers were negatively affected by any amount of contact with people with disabilities. They stated that the overall attitudes regarding disabled students were unfavourable, which is an incompatible finding in comparison to similar studies.

### 2.5.4 *Previous Academic and Clinical Experiences*

Some research has found that inclusion centred upon coursework positively impacts pre-service teachers' approaches and sense of self-efficacy in respect of working with learners with specific needs in an inclusive classroom (Ajuwon et al., 2012; Brownell and Pajares, 1999; Lancaster and Bain, 2007; Leyser et al., 2011; Shade and Stewart, 2001; Taylor and Ringlaben, 2012). Woodcock *et al.* (2012) suggested that preservice teachers who have more information about inclusion are most likely to hold positive attitudes toward inclusion. Courses providing direct experiences regarding students with disabilities have also indicated a positive influence on pre-service teachers' attitudes and self-efficacy towards teaching in an inclusive classroom (Campbell et al., 2003; Freytag, 2001; Lancaster and Bain, 2007; Leyser et al., 2011; Peebles and Mendaglio, 2014; Romi and Leyser, 2006). Furthermore, through a review of the literature on teacher efficacy with respect to inclusion, Avramidis and Norwich

(2002) stated that teachers indicated that they mostly preferred three effective inclusive methods, namely direct experiences regarding students with disabilities, in-service training, and participating in university courses. In an attempt to prepare well for inclusive education, Peebles (2012) reported that there are important variations between the various kinds of direct experiences, and numerous studies do not ensure accurate descriptions of these direct experiences. While the majority of studies on pre-service and in-service teacher self-efficacy have demonstrated a positive connection between coursework and clinical experiences containing inclusion, there are others that have present a different point of view.

In contrast to similar studies, Tait and Purdie (2000) pointed out that changes in pre-service teachers' attitudes toward disability were minimal following a year-long teacher training course. Freytag's (2001) study stated that pre-service teachers' self-efficacy on teaching was not influenced dramatically by the number of courses taken in an undergraduate teacher preparation programme. Surprisingly, Romi and Leyser (2006) noted that preservice teachers in their third and fourth year of study were more likely to possess negative feelings towards inclusion in comparison to their first and second year peers. Moreover, Forlin and Chambers (2011) conveyed the finding that direct experiences with regards to people with disabilities in the scope of a social context heightened pre-service teachers' concerns in terms of having students with disabilities included in their classes.

## **2.6 Conclusion**

As a result of the literature review, it has been understood that pre- and in-service instructors' perceptions of self-efficacy related to inclusive applications have a considerable effect on the success of inclusive practices. It has been reported that the self-efficacy perceptions of both groups were not at the expected level in terms of inclusive practices. It is also stated that there are many different factors affecting this situation, such as experience and training courses. Taking into account the results of the literature review, the self-efficacy perceptions of pre- and in-service teachers in relation to inclusive practices, and the factors affecting them, were considered as research questions in this study. The following chapter presents a detailed account of the methodology employed for this study.

## Chapter 3

### Methodology

This chapter sets out the Teacher Self-Efficacy for Inclusive Practices (TEIP) scale, research questions, scientific procedure, inclusion and exclusion criteria for the systematised review, search strategy, data extraction, and study selection.

#### **3.1 Teacher Self-Efficacy for Inclusive Practices (TEIP) Scale**

The TEIP scale, which was developed by Sharma *et al.* (2012), contains 18 questions investigating various dimensions of self-efficacy for readiness to teach in inclusive settings. Three dimensions of teaching efficacy- efficacy to use inclusive instruction (EII), to efficacy in collaboration (EC) and to efficacy in managing behaviour ( EMB) are evaluated by this 18 item scale. Each dimension covers six items in that the scale employs the following ranking: 1= strongly disagree, 2= disagree, 3= disagree somewhat, 4= agree somewhat, 5= agree, and 6= strongly agree. Sharma *et al.* (2012) reported the reliability coefficient (Cronbach's alpha) of the overall scale  $r=0.89$ . The total score value may range from 18 to 108. When TEIP is considered, teachers' self-efficacy perceptions, which can be classified as high, moderate and low, are determined by the arithmetic mean. Higher scores on the TEIP suggest that a respondent is slightly more effective when teaching students with diverse learning needs in an inclusive classroom. Teachers' replies on the three components supply an overview on their teaching efficacy from the point of all their students. In an attempt to comprehend how productive an instructor is in teaching a student (e.g. one with significant learning needs), the scale might be employed by considering the learning requirements of a specific student when reacting to every item (Loreman et al., 2013). That no qualitative data were gathered was a limitation of the scale, since the most significant objective was to form a scale for quantitatively measuring instructing productivity (Sharma et al., 2012).

A teacher's ability to encourage inclusion in early childhood classrooms is a significant element which directly contributes to the teacher's effectiveness, although many teachers view themselves as inadequately prepared to support children's learning in inclusive settings (Darling-Hammond, 2006; Dozier and Berlotti, 2000). With the TEIP scale (Sharma et al., 2012), this aspect of teacher self-efficacy is measured by items related to the EII scale. Some sample items in the sub-scale that measures efficacy

in instruction (e.g. ‘I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated; I can accurately gauge student comprehension of what I have taught’).

Another sub-scale measured by the TEIP scale (Sharma et al., 2012) is EMB. This sub-scale represents the perception that teacher’s self-efficacy with regards to inclusion structures learners’ success and behaviours just like instructors’ behaviours and classroom leadership (Ahsan et al., 2012; Gibson and Dembo, 1984; Tschannen-Moran and Hoy, 2001). The items in the sub-scale that measure efficacy in managing behaviour (e.g. ‘I can control disruptive behaviour in the classroom; I am confident in my ability to prevent disruptive behaviour in the classroom before it occurs’) concern mainly with a conceived competency to block and deal with disruptive learner attitude. It is necessary to be aware that solely one item in the instruction and leadership attitude sub-scales hints somewhat on instructing learners with specific needs. The other items in these two sub-scales display applications that could be the component of any general evaluation of teacher self-efficacy. That’s why several inclusive education applications are highly common methods that are practical with respect to all learners from diverse educational settings (Mitchell, 2008).

The third sub-scale in the TEIP scale is EC. Collaboration between pre-service teachers validates and expands their knowledge of content and pedagogy, factors that enhance teachers’ perceptions of self-efficacy (Guo et al., 2011). From the three TEIP sub-scales, EC is most closely linked to students with special needs. Most of the items in this sub-scale involve SEN pupils (e.g. ‘I can assist families in helping their children do well in school; I am confident in my ability to get parents involved in school activities of their children with disabilities’). It also requires participants to judge their efficacy to coordinate with families, coworkers and other professionals when instructing pupils requiring special needs.

### **3.2 Research Questions**

In this dissertation, the aim is to investigate systematically the self-efficacy of teachers and teacher candidates (undergoing initial teacher education) in mainstreaming practices using the TEIP scale (Sharma et al., 2012). The review will examine the following research questions:

1-What is the level of self-efficacy perceptions of pre-service teachers with regards to inclusive practices?

2-What is the level of self-efficacy perceptions of teachers with regards to inclusive practices?

3-What are the variables that determine the self-efficacy of in-service and pre-service teachers in inclusive practices?

### **3.3 Scientific Procedure**

Social scientists use a mixture of different methodologies, creating problems for researchers who are attempting to review the cumulative results of all studies. These are evidence-based reviews. A typology of reviews involves terms or phrases such as in review of the evidence (Davies, 2007; Rossall et al., 2008), comprehensive review (Ward et al., 2008), literature review (Hall and Walton, 2004), overview (Boulos et al., 2007) and systematic review (Ankem, 2006; Weightman and Williamson, 2005). Given the importance evidence-based practice places on appropriate information retrieval, such diverse terminology could, if unchecked, perpetuate a confusion of indistinct and misapplied terms. The most known review type, a systematic review, looks into systematically searching for, appraising and synthesising research evidence, often adhering to the guidelines on the conduct of a review provided by the Cochrane Collaboration (Higgins and Green, 2008) or the NHS Centre for Reviews and Dissemination (CRD, 2009).

A systematic review is a review of an obviously formulated question that uses systematic and explicit methods to describe, distinguish, and appraise relevant research critically, and to collect and analyse data from studies that are included in the review. Statistical methods (meta-analysis) might or might not be used to analyse and summarise the outcomes of the included studies. Meta-analysis attributes the use of statistical techniques in a systematic review for putting together the results of the included studies (Moher et al., 2009). Systematic reviews differ from traditional narrative reviews, such as systematised reviews, in different ways. Narrative reviews are inclined to be more phenomenological, do not cover a planned inquiry of the literature, and therefore frequently centre upon a subset of studies in an area selected on the grounds of availability or author selection. Thus, narrative reviews, while informative,

might often involve a factor of selection bias. They might also cause a confusion at times, especially given that same studies have variant consequences. Systematic reviews, as the name implies, usually consist of a detailed and comprehensive plan and search strategy derived a priori, with the aim of minimising bias by describing, appraising, and synthesising all relevant studies on a particular topic. In general, systematic reviews contain a meta-analysis facet, which requires employing statistical ways of data collection to synthesise the data from various research items into a sole quantitative measure or summary impact size (Petticrew and Roberts, 2006). Restricting studies for inclusion to a single study design, such as randomised controlled trials, may limit the application of this methodology to provide insights about effectiveness rather than seeking answers to more complex search questions; for instance, why a particular intervention is effective (Grant and Booth, 2009).

Systematised reviews undertake an enterprise to comprise one or more components of the systematic review process while stopping short of claiming that the resultant output is a systematic review. For the most part, the search stage possesses more easily defined factors of systematicity, and an author can conduct a comprehensive search; however, the researcher can do little more than simply cataloging included studies. On the contrary, the author may only search one or more databases, and then code and analyse all of the retrieved results in a systematic manner. The resulting output 'models' the systematic review process and helps the author to demonstrate an awareness of whole process and technical proficiency in the component steps. Such a review, however, necessarily falls short of being able to claim the comprehensiveness so basic to the systematic review method. For such reviews, quality assessment and synthesis might be less definable. This means that these processes are not identified, that they are modeled using a small set of eligible articles, or that they are missing completely. While the attempt at systematicity is to be well-received, such reviews do possess a greater likelihood of bias than those that stay connected most certainly to guidelines on the conduct of systematic reviews (Grant and Booth, 2009).

This study was conducted relying on a systematised review which focused on a number of articles, in respect of the research questions. One advantage of conducting a systematised literature review is that only relevant articles were chosen for the study in order to increase the validity of the research project. Systematized review tend to

involve components of the systematic review process while stopping short of a systematic review. This specifically refers to reviews compiling evidence from multiple reviews into one accessible and usable document (Grant and Booth, 2009, p95).

This review is reported according to the PRISMA guidelines for the conduct and reporting of systematised reviews. The aim of the PRISMA statement is to help authors improve the reporting of systematic reviews and meta-analyses. PRISMA is an evidence-based minimum set of items for reporting in systematic reviews and meta-analyses. On the other hand, the PRISMA checklist is not a quality assessment instrument used to gauge the quality of a systematic review (Moher et al., 2009). In this study, however, PRISMA has been used since the first step of the systematic review, taking into account the fact that it is a much more accurate approach to fulfilling the requirements of the research methodology.

### *3.3.1 Inclusion and Exclusion Criteria*

#### *3.3.1.1 Inclusion Criteria*

Reports eligible for inclusion in the review were limited to peer-reviewed journal articles, reported in the English language, and published between January 2012 and June 2018. As the TEIP scale was published in 2012, the articles included in the study were selected starting from 2012. Participants were limited to pre-service and in-service teachers, and no age, gender, level of professional degree, area of training or level of teacher education programmes (or level currently teaching) factors were considered for exclusion. Some studies have also discussed other variables such as teachers' attitudes or behaviours regarding inclusive practices, apart from the variable of teachers' self-efficacy perceptions towards inclusive practices. In this case, only those parts that have predicted the self-efficacy perceptions of teachers towards inclusive education were included in the research.

#### *3.3.1.2 Exclusion Criteria*

As this study did not allow for doing a wider search of the grey literature, due to the time, resources and word limitation of the dissertation, qualitative studies were not included. Moreover, conference presentations, studies in which teacher self-efficacy in terms of inclusive practices is not an outcome variable, studies reporting the structural validity of the TEIP scale, and qualitative studies have been excluded. Because the

purpose of the research is to determine the self-efficacy perceptions of the teachers, studies involving only teacher self-efficacy without inclusive education settings have not been included in the study.

### 3.4 Search Strategy

A comprehensive search was conducted to identify and collate all relevant articles and theses that could be included and synthesised within the review. Studies were identified through systematically searching electronic databases for research articles, and hand-searching the reference lists of relevant articles. Search terms were applied to the PsycINFO, MEDLINE, ERIC, Academic Search Complete, Social Sciences Citation Index, Complementary Index ScienceDirect, ProQuest and Academic OneFile databases. The last search was conducted on June 20th, 2018. A full strategy is shown in Figure 1.

<p><b>Databases:</b> PsycINFO, MEDLINE, ERIC, Academic Search Complete, Social Sciences Citation Index, Complementary Index ScienceDirect, ProQuest and Academic OneFile databases.</p> <p><b>Search:</b></p> <p>‘Teacher self-efficacy for inclusive practices’ OR ‘teacher self-efficacy for inclusive practices (TEIP)’ AND ‘in-service teacher’ AND ‘pre-service teacher’ AND ‘initial teacher education’</p> <p><b>Limiters:</b> All in English, January 2012 to June 2018, Journal articles</p>
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*Figure 1: The full search strategy*

### 3.5 Data Extraction

A data extraction table was developed to enable the collection and tabulation of information from each included study that is relevant to the review questions. Information was extracted from each included study on the country where research was conducted, the sample characteristics (including sample size, mean age and gender), predictor measures, including the measure of TEIP used, and a summary of the reported results.

### 3.6 Study Selection

A total of 24 studies were identified for inclusion in the review. However, the included studies were not rated for quality or risk of bias. As systematised reviews are generally descriptive, it did not contain a systematic inquiry of the related literature. For this reason, even though the systematised review was quite informative, it can usually involve a factor of selection bias. Moreover, since the systematised review did not include a meta-analysis, the quality of the included studies could not be checked. The search strategy of using the PsycINFO, MEDLINE, ERIC, Academic Search Complete, Social Sciences Citation Index, Complementary Index ScienceDirect, ProQuest and Academic OneFile databases yielded 172 results. Following the removal of duplicates, 115 studies remained. 61 studies were excluded through reviewing the titles and abstracts, as these studies did not meet the inclusion criteria. The full text of the remaining 54 studies was examined, and 24 were considered relevant and met the inclusion criteria. Prior to the searches, the researcher limited the search engines to the last seven years, namely from 2012 to 2018. Apart from this, all of the articles that were selected for the study had to be peer reviewed. Moreover, the fact that they are reviewed by different researchers prior to being published reduces bias (Kelt, n.d). On the contrary, only relying on published work causes publication bias. Publication bias is derived from statistically significant selected published results (Normand, 1999). In this regard, the specific concern is that journals tend to reject studies which have statistically insignificant results. In other words, the probability of the publication of studies with statistically significant results is higher, which causes a bias in published literature, and then this bias is reflected in the literature-based studies (Borenstein et al., 2009). The first step in reducing the risk of publication bias is to have information from the researcher's unpublished research. Therefore, it is necessary for the researcher to reach as many studies as possible, and to add all studies involving meaningful or meaningless findings (Borenstein et al., 2009; Normand, 1999; Stuebing et al., 2009; Rosenthal and DiMatteo, 2001). Nevertheless, this could not be achieved due to the time constraints of the present work and the word limitations. For this reason, when evaluating the results, it is important to consider this limitation. Figure 2 outlines the PRISMA flow diagram of the processes for study inclusion.

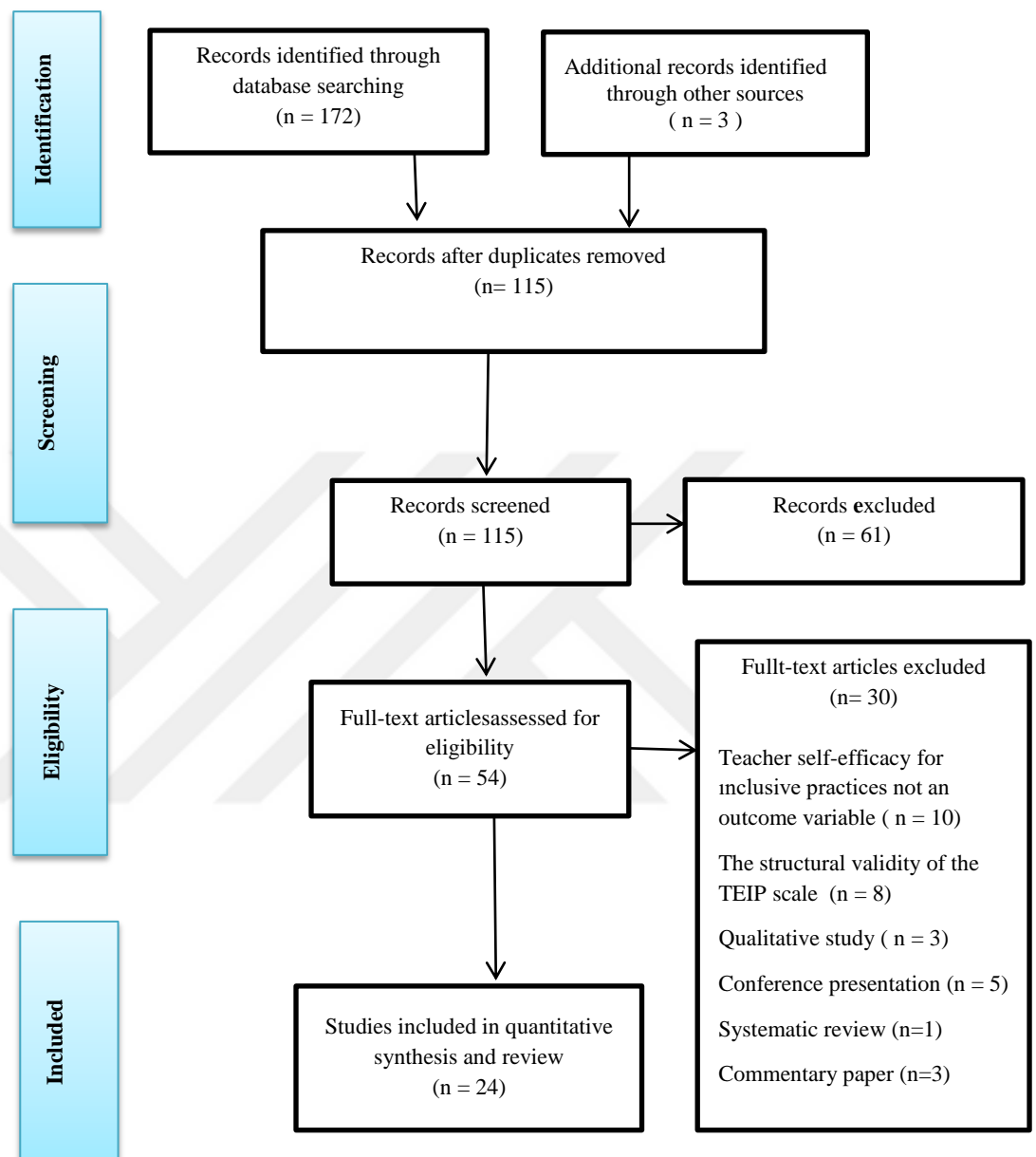


Figure 2: PRISMA flow diagram of processes for study inclusion

## **Chapter 4**

### **Results and Discussion**

Chapter four displays an overview of the results, and the results collated from the studies that met the systematised review's inclusion criteria. Moreover, in this chapter, pre- and in-service teachers' perceptions of self-efficacy towards mainstreaming practices, the variables affecting overall teacher self-efficacy, the effects of coursework studies on teachers' self-efficacy, and cross-country studies will be investigated. In this section, the results are presented and discussed in a narrative synthesis of the investigated studies.

#### **4.1 Overview of Results**

A total of 24 studies were identified for the views of pre and in-service teachers on self-efficacy towards inclusive learning. Four studies out of 24 were cross-country studies. While one of the four studies sampled Finland and South Africa, the others sampled China, Finland and South Africa, Pakistan and Australia, and Italy and Australia. In the remaining 20 studies, three were conducted in Canada, two in Bangladesh, and two in Hong Kong. The remaining studies were conducted in China, Mexico, the United States of America (USA), Italy, Pakistan, the Republic of Ireland, Nicaragua, the United Kingdom (UK), Japan, Australia and Turkey. Two of the studies were done on the basis of the continent instead of the country. In one of these studies, 20 countries were selected as the sample. The samples considered in terms of continents were Europe, America, Asia, Australia and Africa. 17 of the studies were quantitative and used a cross-sectional design, whereas four of them were coursework studies, and three of them were mixed-method studies. 14 of the studies were conducted with in-service teachers, and nine of them were conducted with pre-service teachers. However, one of the studies referred to both pre-service and in-service teachers.

#### **4.2 The Results of the Examined Articles**

The results are based on a narrative synthesis of the investigated studies. In other words, data synthesis was fulfilled by a narrative (vote counting) approach. A variety of terms are occasionally used to describe analyses in reviews when statistical methods (meta-analyses) are not used. These include 'qualitative synthesis' and 'narrative synthesis'. Neither of these terms are well defined or appropriate as part of reviews of

influences, which are seldomly, if ever, non-quantitative or grounded on words or telling a story. An alternative term that might be used, if required, is a 'structured synthesis'. This term may be used whether meta-analysis is used for some comparisons and outcomes or not at all. The analytic approach to a review of effects is similar with or without the use of meta-analysis; the difference between them is that the researcher does not use statistical methods in order to summarise the results.

There are some reasons for not calculating an average effect across studies. The first is missing information (e.g. unit of analysis errors and no reported intra-cluster correlations (ICCs) in reviews of cluster randomised trials). Secondly, unexplained heterogeneity can make the average effect difficult to interpret and potentially misleading. Finally, there are differences in populations, interventions, comparisons or methods that would make the average effect across studies meaningless. The results are shown in the table in Figure 3.

Figure 3: Table of Results

Study Citation	Country of origin and Sample characteristics	Study design, Predictor measure	Findings
<p>1) Ahsan, et al. (2012)                      “Exploring pre-service teachers’ perceived teaching- efficacy, attitudes and concerns about inclusive education in Bangladesh”</p>	<p>Country: Bangladesh                      N=1623                      992 F                      631 M                      Age range: 19 to 54 years</p> <p><i>Teachers</i>                      Pre-service teacher</p> <p><i>Schools</i>                      Primary schools, secondary schools, education institutions</p>	<p>Design: Cross- sectional</p> <p><b>Predictor:</b>                      Sentiments Attitudes and Concerns about Inclusive Education (SACIE) scale (Loreman et al. 2007).                      Teacher Self-Efficacy for Inclusive Practices (TEIP) scale (Sharma, Loreman, &amp; Forlin, 2012)</p>	<ol style="list-style-type: none"> <li>1- The overall mean score of the perceived teaching- efficacy of the pre-service teachers on the TEIP scale was 4.84 (SD=-.52).</li> <li>2- Pre-service teachers had highest score (M=5.10, SD=-.58) in Efficacy in managing behavior factors, followed by (M=4.80, SD=-.59) Efficacy to use inclusive instructions. the lowest level of teaching- efficacy (M=4.59, SD=-.75) was found in Efficacy in collaboration factor.</li> <li>3- Length of training (<math>\beta=-.158</math>, SE=.028) made the strongest contribution among the significant variables in predicting pre-service teachers’ perceived teaching- efficacy for IE.</li> <li>4- Knowledge of also identified local legislation on disability (<math>\beta=.131</math>, SE=.016) as the next powerful significant predictor variable.</li> <li>5- Confidence in teaching a student with disability (<math>\beta=.128</math>, SE=.015) was found as another significant predictor of perceived teaching- efficacy.</li> </ol>

			<p>6- Having significant interaction in dealing with a person with disability was another predictor (<math>\beta=.118</math>, <math>SE=.027</math>) of perceived teaching-efficacy. Participants who had indicated having interacted with people with disabilities were found to have higher perceived teaching-efficacy (<math>M=4.93</math>, <math>SD=.48</math>) than who did not have any such interaction (<math>M=4.73</math>, <math>SD=.54</math>).</p> <p>7- Level of training involved (<math>\beta=.063</math>, <math>SE=.033</math>) was also found as a significant predictor variable in the model.</p> <p>8- Gender (<math>\beta=-.053</math>, <math>SE=.029</math>) was the weakest predictor variables. Male pre-service teachers (<math>M=4.90</math>, <math>SD=.54</math>) had higher level of perceived teaching-efficacy than female counterparts (<math>M=4.79</math>, <math>SD=.51</math>).</p>
<p>2) Savolainen, et al. (2012)</p> <p>“Understanding teachers’ attitudes and self-efficacy in inclusive education: Implications for pre-service and in-service teacher education”</p>	<p>Country: Finland and South Africa</p> <p><b>Finnish</b> N= 822 78.3% F No age reported</p> <p><b>South African</b></p>	<p>Design: Mixed-methods</p> <p><b>Predictor:</b></p> <p>Sentiments Attitudes and Concerns about Inclusive Education (SACIE) scale (Loreman et al. 2007).</p> <p>Teacher Self-Efficacy for Inclusive Practices (TEIP) scale (Sharma, Loreman, &amp; Forlin,</p>	<p>1- Overall, the self-efficacy of Finnish teachers’ on inclusive practices was fairly high (<math>M=4.53</math>).</p> <p>2- Although Finnish teachers’ level of self-efficacy was the least highest in managing behaviour (<math>M=4.28</math>), they performed the highest level in terms of implementing inclusive instruction (<math>M=4.60</math>).</p> <p>3- Overall, South African teachers hold slightly high self-efficacy (<math>M=4.63</math>). They executed strongest self-efficacy beliefs in managing behaviour (<math>M=4.87</math>), and lowest in collaboration (<math>M=4.33</math>).</p>

	<p>N= 319 82.1 % F No age reported</p> <p><i>Teachers</i> In-service teachers</p> <p><i>Schools</i> Primary and secondary schools</p>	<p>2012)</p>	<p>4- Finnish teachers' overall self-efficacy beliefs correlated statistically significantly was high both the overall attitudes and in the three sub-dimensions (<math>p &lt; 0.01</math>).</p> <p>5- Among South African teachers, overall self-efficacy beliefs correlated with overall.</p> <p>6- SACIE score (<math>r = 0.194</math>) but the relationship, was somewhat weaker than among.</p> <p>7- Finnish teachers efficacy in collaboration remained the most strong predictor of overall attitudes in both countries.</p>
<p>3) Malinen, et al. (2013)</p> <p>“Exploring teacher self-efficacy for inclusive practices in three diverse countries”</p>	<p><b>Country:</b> China, Finland and South Africa</p> <p>N=1911</p> <p><b>China</b> N=451 F= % 86.9</p> <p>Mean age = 33.5 years</p> <p><i>Teachers</i> In-service teachers</p> <p><i>Schools</i></p>	<p>Design: Cross- sectional</p> <p><b>Predictor:</b> Teacher Self-Efficacy for Inclusive Practices (TEIP) scale (Sharma, Loreman, &amp; Forlin, 2012)</p>	<p><b>The China Model</b></p> <p>1- Experience in teaching students with disabilities explicated considerably attendants' efficacy in instruction and collaboration as well as the efficacy of teaching experience in managing student behaviour.</p> <p>2- While special education teachers considered themselves more efficacious in collaboration, the mainstream teachers had more efficient in managing student behaviour compared to their colleagues in special education.</p> <p>3- The most important predictors were collaboration, and managing behaviour respectively. The prediction</p>

	<p>Primary and middle schools</p> <p><b>Finnish</b></p> <p>N= 855</p> <p>F= % 78.3</p> <p>Mean age = 44.5 years</p> <p><i>Teachers</i></p> <p>In-service teachers</p> <p><i>Schools</i></p> <p>Comprise primary schools secondary comprehensive schools or unified comprehensive schools</p> <p><b>South Africa</b></p> <p>N= 605</p> <p>F= % 82.5</p> <p>Mean age = 44.2 years</p> <p><i>Teachers</i></p> <p>In-service teachers</p>		<p>level (<math>R^2</math>) of the model was 0.13 for efficacy in collaboration and 0.06 for efficacy in managing behaviour.</p> <p><b>The Finnish Model</b></p> <ol style="list-style-type: none"> <li>1- Only experience in teaching students with disabilities and the amount of training with regard to inclusive education explained dramatically all self-efficacy elements.</li> <li>2- The male teachers rated higher their capability to get under control undesirable student behaviour.</li> <li>3- The most important predictors were efficacy in instruction, efficacy in collaboration, and efficacy in managing behaviour respectively. The prediction level (<math>R^2</math>) of the model was 0.19 for efficacy in instruction, 0.19 for efficacy in collaboration, and 0.13 for efficacy in managing behaviour.</li> </ol> <p><b>The South African model</b></p> <ol style="list-style-type: none"> <li>1- Experience in teaching students with disabilities as well as previous interactions with disabled people explained considerably all the self-efficacy components.</li> </ol>
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	<p><i>Schools</i></p> <p>Primary and secondary main-stream schools, one special school</p>		<p>2- Senior participants on an average gave credence highly to their ability to get students to follow school rules in managing behaviour.</p> <p>3- The most important predictors were efficacy in instruction, efficacy in collaboration, and efficacy in managing behaviour respectively. The prediction level (<math>R^2</math>) of the model was 0.09 for efficacy in instruction, 0.27 for efficacy in collaboration, and 0.06 for efficacy in managing behaviour.</p>
<p>4) Malinen &amp; Savolainen (2013)</p> <p>“Dimensions of teacher self-efficacy for inclusive practices among mainland Chinese pre-service teachers”</p>	<p>Country: Chinese</p> <p>N: 552</p> <p>79.5 % F</p> <p>18.3 %, M</p> <p>2.2% Missing</p> <p>Mean age= 20.8 years (SD = 2.04)</p> <p><i>Teachers</i></p> <p>Pre-service teachers</p> <p><i>Schools</i></p> <p>Teacher training institutions</p>	<p>Design: Cross -sectional</p> <p><b>Predictor:</b></p> <p>Sentiments Attitudes and Concerns about Inclusive Education (SACIE) scale (Loreman et al. 2007).</p> <p>Teacher Self-Efficacy for Inclusive Practices (TEIP) scale (Sharma, Loreman, &amp; Forlin, 2012)</p>	<p>1- The mean score of those who had previous experience in communicating with disabled people was significantly (<math>p &lt; .001</math>) higher than those who did not have such experience.</p> <p>2- Participants’ major subjects were related with their teacher efficacy for inclusive practices (<math>F = 4.649</math>; <math>p &lt; .001</math>; <math>\eta^2 = .06</math>).</p> <p>3- Participants in the group art, music, and physical education scored higher by comparison with general education, pre-school education, or history and social sciences majors.</p> <p>4- Attendees in the group rehabilitation and education technology performed higher self-efficacy compare than participants in the education, special education, pre-school education, or history and social sciences</p>

			group.
5) Delkamiller et al. (2013) “Examining inclusive practices in Nicaraguan schools”	Country: Nicaraguan N= 61 56 F 5 M Mean age = 38.87 years (SD=8.05) <i>Teachers</i> In-service teachers <i>Schools</i> Elementary, preschool and secondary schools.	Design: Cross-sectional <b>Predictor:</b> Teacher Efficacy of Inclusive Practices scale (TEIP, Sharma, Loreman, & Forlin, 2011)	1- Participants rated themselves as highest in the area of efficacy in inclusive instruction (M=5.14, SD=.72), efficacy in collaboration was the second highest factor (M=5.04, SD =.83), and efficacy in coping with disruptive behavior (M = 4.90, SD =.91), was the lowest factor.  2- Mean of all survey items (M= 5.05, SD= .50).
6) Shaukat et al. (2013) “Pakistani and Australian pre-service teachers’ attitudes and self-efficacy towards inclusive education”	Country: Pakistan N= 194 Country: Australia N=123 203 F 107 M Age range = < 29 to 30 >	Design: Cross-sectional <b>Predictor:</b> Attitudes towards Inclusive Education Scale (ATIES) (Wilczenski, 1991) Teacher Efficacy in Inclusive Practice Scale (TEIP) (Sharma et al.,	1- There are no significant differences between mean scores towards efficacy in inclusive instruction between Pakistani (M=28.19, SD=3.98) and Australian (M=28.94, SD=3.89) prospective teachers. Pakistani prospective teachers had greater sense of efficacy in collaborating and managing behaviour of students with diverse needs than Australian prospective teachers as the result shows significant differences.  2- To find out the predictions of demographic variables on prospective teachers’ efficacy beliefs towards

	<p>Years</p> <p><i>Teachers</i></p> <p>Pre-service teachers</p> <p><i>Schools</i></p> <p>Bachelor of Education (B.Ed-G) or Post Graduate Diploma in Education, Master of Education (M.Ed-G) in a regular education stream or Bachelor of Education (B.Ed-SE) and Masters of Education in special education (M.Ed-SE) streams.</p>	2012).	<p>inclusion, regression analysis was performed. The efficacy beliefs score was treated as dependent variable.</p> <p>3- Regression analysis did not show any significant results for the Australian group of prospective teachers. On the other hand, three variables were found to have significant prediction for efficacy towards inclusive education for the Pakistani group of prospective teachers. Gender(<math>\beta=.20</math>, SE=.06), level of training(<math>\beta=-.35</math>, SE=.07) and experience on educating students with disabilities(<math>\beta=-.30</math>, SE=.06) were found to have significant effect on efficacy towards inclusion.</p>
<p>7) Romero-Contreras et al. (2013)</p> <p>“Preparing teachers for inclusion in Mexico: How effective is this process?”</p>	<p>Country: Mexico</p> <p>N=813</p> <p>88% F</p> <p>Age range = 17 to 49 years</p> <p><i>Teachers</i></p>	<p>Design: Cross-sectional</p> <p><b>Predictor:</b></p> <p>The Sentiments, Attitudes and Concerns about Inclusive Education (SACIE) Scale (Loreman et al. 2007)</p> <p>Teacher Efficacy of</p>	<p>1- Overall, pre-service teachers indicated relatively high self-efficacy (M= 5.02, SD = .63) in being ready for inclusive practices.</p> <p>2- Efficacy in creating an inclusive classroom environment did not vary considerably by gender (<math>\eta^2=0.00</math>), but did diversify according to whether they had any previous relationship with a disabled person(<math>\eta^2=0.16</math>), and their year of study (<math>\eta^2=0.15</math>).</p> <p>3- Significant interactions and being in their final two</p>

	<p>Pre-service teachers <i>Schools</i> Preschool, primary and special education</p>	<p>Inclusive Practices Scale (TEIP, Sharma, et al.2012)</p>	<p>years of study signed higher efficacy for the total scale score and all three elements of the TEIP with medium-to-large effect sizes (<math>TTS\eta^2=0.15</math>, <math>II\eta^2=0.14</math>, <math>DB\eta^2=0.12</math>, <math>PP\eta^2=0.10</math>) .</p> <p>4- Attendant’s perception of self-efficacy also varied considerably for the total scale score and the three factors of the TEIP by area of training, level of training, policy knowledge, and their experience and confidence in teaching a student with a disability.</p> <p>5- Those studying early childhood (M=4.72, SD=.71) hold lower efficacy than those in special education(M=5.05, SD=.63). Participants with at least 40 h of training (M=5.24, SD=.53) had higher efficacy than those who had none (M=4.82, SD=.67), or only some (M=4.90, SD=.64), training.</p> <p>6- Those who had a good (M= 5.27, SD=.48)or very good (M=5.37, SD=.75) level in knowledge about policy and legislation performed higher efficacy than those who indicated that they had none (M=4.82, SD=.73), poor(M=4.71, SD=.64) or average (M=4.96, SD=.59) knowledge.</p> <p>7- Likewise, concerning experience and level of confidence in teaching a student with a disability, participants having high (M=5.25, SD=. 42) or very high (M=5.50, SD=.64) levels had higher efficacy.</p>
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			The effect sizes ( $\eta^2$ ) for these significant interactions were greater than 0.10 indicating a medium-to-large effect.
8) Douglas et al. (2013-2014) “An investigation of attitudes and perceptions toward inclusion: Comparing preservice teachers to first year teachers”	Southeastern United States N: 91 76 F 15M Pre-service teacher candidates (n=40) First year teachers (n=51) Average age: 25 or below. <i>Teachers</i>  Pre-service teacher First year teachers <i>Schools</i> Elementary and secondary schools	Design: Cross-sectional <b>Predictor:</b> Sentiments, Attitudes, and Concerns about Inclusion Education Revised (Forlin et al., 2011; SACIE-R)  Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)	1- Population parameters for the Teacher Efficacy for Inclusive Practice (TEIP) Scale was compared to a study carrying out by Peebles (2012) using a one sample <i>t</i> -test on the sample of student teacher candidate (n=141) for the using inclusive instruction ( $\mu = 25.87$ ). A significant difference was found, $t_{(39)} = 12.149$ . $p < .001$ with the sample (M=31.65) being significantly higher than the population mean. 2- There was a significant difference found, $t_{(39)} = 9.52$ , $p = .000$ with the sample mean (M =30.48) being significantly higher than the population mean. by comparison the sample mean for the collaboration to the population parameter ( $\mu = 25.94$ ). 3- The population value (N = 24.54) was used about the managing problem behaviour one sample t-test There was a significant difference found, $t_{(39)} = 8.57$ , $p = .000$ again, showing the sample (M =30.06) significantly higher than the population mean. 4- All variables connected dramatically except for the correlation between attitudes (SACIE-R) and efficacy towards inclusion (TEIP). The only correlation not illustrating a significant relationship

			<p>was the Attitudes Scale and Efficacy in Managing Behavior Scale.</p> <p>5- The results showed that for the three subscales of TEIP, senior pre-service teachers had a higher average than the first year teachers.</p>
<p>9) Forlin, et al.(2014) “Predictors of improved teaching efficacy following basic training for inclusion in Hong Kong”</p>	<p>Country: Hong Kong N=737 70% F 30% M Age = 25 years or younger to being older than 46. <i>Teachers</i> In-service teachers <i>Schools</i> Primary, secondary and special schools.</p>	<p>Design: Coursework This was the 1-week 40-hour basic course. The course involved a brief outline of the etiology, diagnosis, and educational implications of learners identified with variety of special needs. It also consisted of the exploration of some simple strategies, skills, and interventions that could be applied in regular classes to support these learners. Particularly, the course provided a local legislation and policy about the whole school</p>	<p>1- Teachers’ perceived ability to manage children’s maladaptive behaviours, assume inclusive instruction, and collaborative work with counterparts, all enhanced post training. Effect size of 0.20 is small, 0.21 – 0.50 is medium, and 0.8 or above is large.</p> <p>2- No meaningful differences were stated between pre- and post-data for the total TEIP, Factor 2 (Inclusive Instruction), or Factor 3 (Collaboration) for any of the demographic variables.</p> <p>3- A notable change was reported between male and female participants (<math>F_{(2, 645)} = 6.67, p &lt; 0.05</math> about managing behaviour. Female participants’s scores had increased (Pre M = 4.38, SD =.55, Post M = 4.62, SD =.48) significantly wider compare than their male counterparts (Pre M = 4.60, SD =.55, Post M = 4.74, SD =.52).</p> <p>4- Previous training did not impact relevance at pre- (<math>F_{(2, 716)} = 2.417, p = 0.90</math>) or post-stage of analysis (<math>F_{(2, 725)} = 1.42, p = 0.24</math>).</p>

		<p>approach adopted by the Education Bureau through implementing a more inclusive approach to schoolin.</p> <p><b>Predictor:</b></p> <p>Sentiments, Attitudes, and Concerns about Inclusion Education Revised (Forlin et al., 2011; SACIE-R)</p> <p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)</p>	<p>5- Considerable differences were observable in sub-groups depending upon their level of experience at the post-test stage (<math>F_{(2,723)} = 4.76, p = 0.009</math>). Experienced participants in teaching students with disabilities had largely higher scores by comparison he participants with longer (i.e. 30 days) of experience.</p> <p>6- None of the variables involved in the equation emerged as important predictors from the point of managing disruptive behaviour sub-scale.</p> <p>7- Significant predictors were related to the lack of knowledge and skills (<math>\beta = 0.18</math>) and knowledge regarding local legislation and policies (<math>\beta = 0.11</math>) in inclusive instruction sub-scale with regards to the impact of the training course.</p> <p>8- The lack of knowledge and skills (<math>\beta = 0.14</math>) and knowledge about local policies (<math>\beta = 0.24</math>) in collaboration sub-scale also emerged as a significant predictor.</p>
<p>10) Peebles &amp; Sal Mendaglio (2014)</p> <p>“The impact of direct experience on preservice teachers’</p>	<p>Country: Canada</p> <p>N= 141</p> <p>78.7% F</p> <p>21.3% M</p>	<p>Design: Coursework</p> <p>The focus of the study was on a mandatory inclusion course and the field experience. The 10-</p>	<p>1- There were meaningful increments in overall self-efficacy score subsequent to the coursework beside after the field experience.</p> <p>2- Inclusive instruction illustrated the largest gain (3.46), followed by managing behaviours (2.97) and</p>

<p>self-efficacy for teaching in inclusive classrooms”</p>	<p>Age range = 18 to over 49 years</p> <p><i>Teachers</i></p> <p>Pre-service teachers</p> <p><i>Schools</i></p> <p>Elementary and secondary schools</p>	<p>week course comprised a weekly whole-class lecture and a weekly breakout session. weekly whole-class lecture centered upon specific topics such as understanding of race and racism, social justice related to the individual needs of students.</p> <p>After 10 weeks, the preservice teachers completed a three-week field experience in neighbourhood schools. During the field experience, they worked with individual and small groups of learners.</p> <p><b>Predictor:</b></p> <p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)</p>	<p>collaboration (1.11) in the three subscales of the TEIP scale.</p> <p>3- There were meaningful gains from both the coursework and the field experience in the subscale of ‘inclusive instruction’ in company with a greater gain during the coursework. While, there was a significant gain from the coursework, however, not from the field experience in sub-scale of ‘collaboration’, and, there were important increases from both the coursework and the field experience for ‘managing behaviours with a larger increment during the field experience.</p> <p>4- The mean self-efficacy scores were higher for the group of ‘yes prior experience’ by comparison the ‘no prior experience’ group at each point in time. The mean self-efficacy scores rose over the three time periods for both groups.</p> <p>5- The mutual effect was not significant (Wilks’ Lambda (<math>\Lambda</math>) = 0.98, <math>F_{(2, 138)} = 1.11</math>, <math>p = .33</math>). Hence, prior experience variable did not impact, or get involved the overall effect of the gains in self-efficacy.</p> <p>6- The third analysis investigated what type of experience, if any, was the most powerful predictor of self-efficacy gains of the preservice teachers</p>
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		<p>The Direct Experience Questionnaire (DEQ).</p>	<p>through the field experience. Overall, the total variance of gains in self-efficacy explained by the four predictors was almost 29% (<math>R^2 = .29</math>, <math>F_{(4,136)} = 13.90</math>, <math>p &lt; .001</math>). The significant F value showed that the model as a whole was statistically significant.</p> <p>7- As the hours of time with observation and whole-class instruction declined, self-efficacy was more likely to increase. Furthermore, as the hours of time performing individual instruction and small-group instruction went up, self-efficacy was highly likely to increase. Individual instruction (<math>p &lt; .001</math>) and small-group instruction (<math>p = .005</math>) both had a significant, positive connection with gains in self-efficacy. Observation (<math>p &lt; .001</math>) and whole-class instruction (<math>p = .045</math>) both had a significant, negative relationship with gains in self-efficacy. Ground on the standardised beta values, individual instruction makes the most powerful unique contribution to self-efficacy gains (<math>\beta = 0.38</math>).</p>
<p>11) Montgomery &amp; Mirinda (2014)</p> <p>“Teachers’ self-efficacy, sentiments, attitudes, and concerns about the</p>	<p>Country: Canada</p> <p>N=100</p> <p>87.0% F</p> <p>13.0% M</p> <p>Age range = 25 to 46</p>	<p>Design: Cross- sectional</p> <p><b>Predictor:</b></p> <p>Teacher Efficacy for Inclusive Practice Scale</p>	<p>1- For all three TEIP subscales, the total mean scores were as follows: 28.1 in terms of using inclusive instruction (range = 18–36, SD = 3.70); 28.3 for collaboration (range = 19–36, SD = 3.38); and 26.8 for managing problem behaviour (range = 14–36, SD = 3.94).</p>

<p>inclusion of students with developmental disabilities”</p>	<p>Years</p> <p><i>Teachers</i></p> <p>In-service teacher</p> <p><i>Schools</i></p> <p>Primary and intermediate schools</p>	<p>(Sharma et al., 2012; TEIP)</p> <p>Sentiments, Attitudes, and Concerns about Inclusion Education Revised (Forlin et al., 2011; SACIE-R)</p>	<p>2- The results suggest a weak but statistically significant negative relationship between Sentiments and teachers’ self-efficacy regarding collaboration, and quite weak, however, an important negative relationships between Sentiments and teachers’ self-efficacy for using inclusive instruction and managing problem behaviour.</p> <p>3- The results suggest weak but statistically significant positive relationships between Attitudes and teachers’ self-efficacy with regards to using inclusive instruction and collaborating, and a quite weak ,nevertheless, an outstanding positive relationship between Attitudes and teachers’ self-efficacy for managing problem behaviour.</p> <p>4- A moderate statistically meaningful negative relationship was reported between concerns and teachers’ self-efficacy regarding collaboration, and weak but significant negative connections were evident between concerns and teachers’ self-efficacy for using inclusive instruction and managing problem behaviour.</p> <p>5- Teachers’ self-efficacy for collaboration emerged as the only significant predictor of sentiments, attitudes, and concerns, by the time all three self-efficacy factors were considered contemporaneously. The</p>
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			Adjusted $R^2$ values showed that collaboration accounted for 14%, 13.6%, and 33.8% of the variance in the three criterion variables, respectively. For inclusive instruction and managing problem behaviour no variance reported.
12) Sharma, et al. (2015) “Attitudes and self-efficacy of pre-service teachers towards inclusion in Pakistan”	Country: Pakistan N= 194 121 F 73 M Mean age = 30 years  <i>Teachers</i> Pre-service teachers <i>Schools</i> Primary, secondary and special education	Design: Cross-sectional  <b>Predictor:</b> Attitudes towards Inclusive Education Scale (Wilczenski, 1995)  Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)	1- Significant differences were noted in attenders’ teaching self-efficacy scores when they were grouped in accordance with their subject major [ $F_{(3,193)} = 40.03, p < 0.000$ ]. Participants who were being trained to teach in special schools had higher levels of self-efficacy beliefs [ $M = 5.20$ for B.Ed (special) and $M = 5.04$ for M.Ed (special)].  2- Likewise, those pre-service teachers who reported not having a documented disability thought themselves to be significantly more efficacious ( $M = 4.76$ ) to teach students with a disability in inclusive classrooms than those pre-service teachers having a disability ( $M = 4.35$ ) [ $F_{(1, 193)} = 6.92, p = 0.001$ ].  3- Pre-service teachers having ‘high’ level of training noted statistically significant higher levels of teaching self-efficacy ( $M = 5.25$ ) to educate students with a disability than those pre-service teachers who had ‘no’ training ( $M = 4.50$ ) [ $F_{(2, 193)} = 37.03, p = 0.000$ ].  4- Accordingly, pre-service teachers with ‘very good’ level of knowledge ( $M = 5.20$ ) in terms of policy or

			<p>legislation pertaining to children with disabilities were significantly more efficacious by comparison those pre-service teachers who had ‘average’ (M = 4.80), ‘poor’ (M = 4.49) and ‘no’ (M = 4.52) knowledge [<math>F_{(4, 193)} = 8.01, p = 0.000</math>].</p> <p>5- Pre-service teachers with ‘very good’ level of confidence had greater level of teaching self-efficacy (M = 5.29) in teaching students with disabilities in comparison with those with ‘low’ (M = 4.52) or ‘very low’ (M = 4.53) level of confidence [<math>F_{(4,193)} = 9.17, p = 0.000</math>].</p> <p>6- Pre-service teachers having a greater teaching experience (M = 5.11) were significantly more efficacious with regards to inclusive education than pre-service teachers with ‘nil’ level (M = 4.47) or ‘some’ level (M = 4.67) of experience teaching children with disabilities (<math>F = 42.95, p = 0.000</math>) from the point of the prior level of teaching experience to teach students with a disability,</p> <p>7- A significant negative correlation between the participants’ attitudes and their self-efficacy scores was revealed(<math>r = -.165, p &lt; 0.05</math>), suggesting that as their attitude regarding inclusive education improved, their self-efficacy in the sens of teaching in an inclusive educational setting reduced.</p>
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<p>13) Tasnuba &amp; Tsokova (2015)</p> <p>“BRAC primary school teachers’ teaching-efficacy, attitude, sentiment and concern towards inclusion of children with disabilities in regular classrooms in Bangladesh”</p>	<p>Country: Bangladesh</p> <p>N= 400</p> <p>No gender reported</p> <p>No age reported</p> <p><i>Teachers</i></p> <p>In-service teachers</p> <p><i>Schools</i></p> <p>Primary schools</p>	<p>Design: Cross -sectional</p> <p><b>Predictor:</b></p> <p>Sentiments, Attitudes and Concerns about Inclusive Education – Scale-Revised; (Forlin et al., 2011; SACIE-R)</p> <p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)</p>	<p>1- Overall, the teaching-efficacy mean score of BRAC teachers on the TEIP scale is 5.32 (SD=-.51). BRAC teachers have the highest self-efficacy in using inclusive instruction (M=5.47, SD=.50), pursued by efficacy in managing behavior(M=5.30, SD=.65). Moreover, the teachers had the least efficacy in collaboration(M=5.16, SD=.63).</p> <p>2- There is no remarkable difference in the mean scores of BRAC teachers’ teaching-efficacy for any other background and demographic variables such as age, gender, educational qualification, teaching experience, training, and contact with disabled people.</p> <p>3- Even though the correlation results indicate a very weak, there was statistically significant positive relationship between BRAC teachers’ attitude and their teaching efficacy in using inclusive instruction, collaboration and managing problem behavior (<math>p &lt; 0.01</math>).</p>
<p>14) Sharma &amp; Nuttal (2016)</p> <p>“The impact of training on pre-service teacher attitudes, concerns,</p>	<p>Country: Australian</p> <p>N= 30</p> <p>83.3% F</p> <p>16.7% M</p>	<p>Design: Mixed design</p> <p>The university course tooked a nine-week particularly designed to educate pre-service teachers about using</p>	<p>1- Responses on the TEIP scale revealed a significant increment in participant total mean scores, <math>t_{(22)} = 5.69</math>, <math>p &lt; .001</math>, in pursuit of the completion of the course.</p> <p>2- Participant efficacy in using inclusive practices, <math>t_{(22)} = 5.53</math>, <math>p &lt; .001</math>, and in collaborating with other</p>

<p>and efficacy towards inclusion”</p>	<p>Age range=19 to 29 years</p> <p><i>Teachers</i></p> <p>Pre-service teachers</p> <p><i>Schools</i></p> <p>Primary, secondary, bachelor of special education teachers.</p>	<p>some techniques when they teach a diverse range of students with special needs in inclusive practices. Participants took part in a weekly two-hour workshop, actively engage in class discussions, create and perform class presentations, and read set texts.</p> <p><b>Predictor:</b></p> <p>Teachers’ Attitudes Toward Inclusion Scale(TATIS; Bailey’s, 2004).</p> <p>Concerns about Inclusive Education Scale (CIES; Sharma &amp; Desai, 2002).</p> <p>Teachers’ Efficacy in Implementing Inclusive Practices scale (TEIP; Sharma, Loreman, &amp;</p>	<p>educational professionals, <math>t_{(22)} = 5.69</math>, <math>p &lt; .001</math>, were remarkably advanced.</p> <p>3- They contributed more to the change in TEIP total mean scores by comparison the third subscale, efficacy in managing the behaviour of students with a disability, <math>t_{(22)} = 3.70</math>, <math>p &lt; .01</math>, which only had an effect size of <math>\eta^2 = 0.395</math>.</p> <p>4- No differences were found between the efficacy of participants with different demographic variables prior to or following the course. Pre-service teachers who did not get in touch with disabled people (pre-M = 3.85, SD = .663, post-M = 4.68, SD = .725) had a larger increase in efficacy mean scores compare than pre-service teachers who did have contact with the individuals having disability (pre-M = 4.58, SD = .275; post-M = 4.66, SD = .419).</p>
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		Forlin, 2012).	
15) Chao, et al.(2016) “Improving teaching self-efficacy for teachers in inclusive classrooms in Hong Kong”	Country: Hong Kong N= 417 64.2% F 39% M Age range=26 to 30 years  <i>Teachers</i> In-service teachers  <i>Schools</i> Primary and secondary schools	Design: Mixed method Participants attended in a 30-hour one-week course about teachers’ knowledge of legislation and policies, levels of confidence in teaching students with SEN.  Twenty-three participants participated in the 5 focus-group sessions.  <b>Predictor:</b> Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)	1- In pursuit of participation in the course, teachers’ knowledge of legislation and policies were increased considerably. Same significant results were found for levels of confidence in teaching with a strong effect size. 2- The effect sizes for improvement in teachers’ perceptions on their efficacy to manage behaviours $d = 0.37$ ; collaborate with parents and colleagues $d = 0.52$ ; and supply effective inclusive instruction was $d = 0.28$ , indicating small to medium changes. 3- The teaching efficacy scores at pre and post levels revealed all three factors of managing behaviour, collaboration and inclusive instructions progressed considerably following the teacher training programme. 4- In the model, pre-managing behaviour ( $\beta = 0.64$ , $p < .001$ ) and post-confidence in teaching students with SEN ( $\beta = 0.15$ , $p < .01$ ) were two powerful remarkable predictors to post-managing students with SEN’s behaviour, whereas post-knowledge of legislation and policies ( $\beta = 0.11$ , $p < .05$ ) and teaching experience with students with SEN ( $\beta = -0.09$ , $p < .05$ ) also considerably predicted efficacy

			<p>in post-managing students with SEN's behaviour.</p> <p>5- Of the predictors (pre-collaboration, post-knowledge of legislation and policies, post-confidence in teaching students with SEN and teaching experience with students with SEN) examined, pre-collaboration, (<math>\beta = 0.55, p &lt; .001</math>), post-confidence in teaching students with SEN (<math>\beta = 0.17, p &lt; .001</math>) were extremely notable in predicting participants' efficacy in post-collaboration, and post-knowledge of legislation and policies (<math>\beta = 0.16, p &lt; .01</math>). Prior teaching experience with students with SEN, even though negatively correlated, was not important (<math>\beta = -0.06, p &gt; .05</math>).</p> <p>6- From the predictors namely pre-inclusive instruction, post-knowledge of legislation and policies, post-confidence in teaching students with SEN and teaching experience with students with SEN, still, pre-inclusive instructions (<math>\beta = 0.50, p &lt; .001</math>) and confidence in teaching students with SEN (<math>\beta = 0.23, p &lt; .001</math>) were two intense predictors to post- inclusive instruction, and knowledge of legislation and policies (<math>\beta = 0.13, p &lt; .05</math>).</p>
<p>16) Hosford &amp; O'Sullivan, 2016 "A climate for self-</p>	<p>Country: Republic of Ireland</p>	<p>Design: Cross- sectional <b>Predictor:</b></p>	<p>1- Teachers remarked the highest belief in inclusive instruction (<math>M = 4.86, SD = .81</math>), and least confidence in managing disruptive behaviour (<math>M = 4.42, SD =</math></p>

<p>efficacy: the relationship between school climate and teacher efficacy for inclusion”</p>	<p>N=57 84.2% F Aged between 20 and 39 years (73.7%) <i>Teachers</i> In-service teachers  <i>Schools</i> Primary schools</p>	<p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)  Revised-School Level Environment Questionnaire (R-SLEQ) (Johnson, Stevens, and Zvoch 2007).  Three vignettes adapted from Brophy and Rohrkemper (1981) were utilised to examine teachers’ perceptions of challenging behaviours.</p>	<p>1.09). 2- None of the demographic variables which was attempted was remarkably associated with teaching efficacy beliefs. 3- Several large and positive correlations between total scores on the R-SLEQ and TEIP scales (<math>\rho = .52, p &lt; .001</math>) and subscale scores were found. Particularly, large positive relationships were stated between perceptions of the school resources availability and collaborative structures and teacher efficacy beliefs (<math>\rho = .54, p &lt; .001</math>), especially efficacy in managing disruptive behaviour (<math>\rho = .56, p &lt; .001</math>), and efficacy for inclusive instruction (<math>\rho = .48, p &lt; .001</math>) and collaboration (<math>\rho = .40, p = .001</math>). 4- There was a meaningful positive relationship between total teacher efficacy and ratings of how severe teachers perceived the challenging behaviours (<math>\rho = .59, p &lt; .001</math>) and their confidence in managing them (<math>\rho = .62, p &lt; .001</math>). 5- Teacher ratings of efficacy in behaviour management, efficacy in inclusive instruction and perceptions of the resources availability and collaborative structures regarding exceedingly to positive perceptions with regards to the the severity and confidence in</p>
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			<p>managing challenging behaviours.</p> <p>6- Whole-school level (91.2%), within-teacher/classroom (75.4%) and home (63.2%) were suggested quite oftenly as supports. Respecting the specific behaviours described in each vignette, LSRT was suggested most frequently as a support for learning (63.2%) and behaviour challenges (36.8%).</p> <p>7- Support from the principal and parents was suggested most frequently in relation to supporting combined behaviour and learning challenges (49.1%). Specific reference to support from EPs was suggested by only 12 participants (21.1%).</p> <p>8- Government policy and resource allocation models (78.9%), the deprivation of support from home (71.9%) and whole-school (59.6%) were suggested most frequent as obstacles to efficacious management of challenging behaviours.</p> <p>9- From the point of the specific behaviours depicted in each vignette, eligibility for resource allocation was suggested most frequently as a barrier for confident management of learning (47.4%) and behaviour (35.1%). Collaboration with home (61.4%) was quite oftenly suggested as a discouragement to combined behaviour and learning challenges. EPs practice was identified by 13 participants as a barrier to efficacious</p>
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			inclusive practice (22.8%).
17) Ekins, et al. (2016) “An analysis of English teachers’ self-efficacy in relation to SEN and disability and its implications in a changing SEN policy context”	Country: UK N=213 85% F Mean age: 39.8 years  <i>Teachers</i> In-service teachers  <i>Schools</i> Including both special and mainstream schools	Design: Cross -sectional  <b>Predictor:</b> Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)	1- The English teachers’ self-efficacy levels are comparatively high with mean values on the scale 1–6 ranging from 4.64 to 4.95. Only statistical difference between mean values of subscales is that the level of self-efficacy in collaboration is somewhat lower than self-efficacy in instruction and behaviour management.  2- No difference was determined between gender respondents in their overall self-efficacy or on the three subscales.  3- Neither were there any discrepancies in the self-efficacy between teachers who held a BA degree or MA degree.  4- The Key Stage in which the teacher worked was regarding teacher self-efficacy. Teachers who work with younger pupils seemed to have, on average, higher self-efficacy than teachers working with older children. The differences were explained largely by the differences in self-efficacy in collaboration. The statistically significant differences between the first three Key Stage categories compared in turn to other categories were of moderate effect size (Cohen’s $d > .5$ ).

			<p>5- Differences were found when the efficacy of mainstream teachers, special class teachers and special school teachers were compared. Statistically meaningful differences were revealed in overall efficacy and efficacy in collaboration. Post hoc tests (Tukey <math>p &lt; .05</math>) illustrated that pairwise differences in overall efficacy were significant between special school teachers and mainstream school teachers, with the former having higher efficacy.</p> <p>6- The connection between teacher age and various experience as teacher and self-efficacy was studied with Pearson's correlations. Both age and teaching experience were positively relevant to overall efficacy, indicating a small effect to the direction that elder teachers and teachers with more experience tend to have a higher self-efficacy. Age or teaching experience were not related to self-efficacy in instruction or behaviour management but had a significant relationship with self-efficacy in collaboration. Older teachers and teachers with more experience have higher efficacy in collaboration.</p> <p>7- Particularly, the knowledge and experience elements were strongly associated with self-efficacy, in particular the efficacy in collaboration, where the effect sizes with the both factors on efficacy was</p>
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			<p>strong (&gt;.50).</p> <p>8- The level of self-efficacy in collaboration is lower than self-efficacy in instruction and behaviour management, on the contrary teachers who work in the Foundation Stage, and also those teachers working in special schools or specialist provisions had a higher overall efficacy in collaboration than other teachers.</p> <p>9- Knowledge of laws and policies concerning to SEN and Disability and experiences in teaching children with disabilities had a strong positive relationship on overall self-efficacy with the former having the strongest effect. Moreover, knowledge and experiences appeared to explain the differences in self-efficacy of teachers in the different Key Stages or the effect of age or teacher position (mainstream or special education teachers).</p>
<p>18) Specht, et al. (2016)</p> <p>“Teaching in inclusive classrooms: efficacy and beliefs of Canadian preservice teachers”</p>	<p>Country: Canada</p> <p>N=1490</p> <p>74.2% F</p> <p>25.8% M</p> <p>Mean age: 25.9 years</p>	<p>Design: Cross -sectional</p> <p><b>Predictor:</b></p> <p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)</p>	<p>1- Significantly higher scores for men on the managing behaviour subscale were found (M=4.73, SD=.64).</p> <p>2- Dramatically higher scores for elementary school candidates on the collaboration subscale were indicated (M=4.80, SD=.61).</p> <p>3- Overall, attenders in 2-year post-degree programmes illustrated higher self-efficacy for managing</p>

	<p><i>Teachers</i></p> <p>Pre-service teachers</p> <p><i>Schools</i></p> <p>Elementary and secondary education</p>	<p>Beliefs about Learning and Teaching Questionnaire (BLTQ, see Jordan and Glenn 2008).</p>	<p>behaviour (M=4.72, SD=.58) and collaboration (M=4.81, SD=.60) than those in the 1-year post-degree and 5-year first-degree programmes.</p> <p>4- People having more than 30 days experience teaching with disabled people had higher scores on all three TEIP sub-scales, although significantly higher scores were indicated on all three TEIP subscales for those who had friends with special needs,</p> <p>5- Significantly higher scores on all three TEIP subscales for those with work or volunteer experiences, while the effect sizes were pretty small (<math>\eta^2=.007</math>).</p>
<p>19) Hecht, et al. (2017)</p> <p>“Attitudes and teacher efficacy among Italian and Austrian teachers: A comparative study”</p>	<p>Country: Italian, Austrian</p> <p>N= 364</p> <p><b>Italian</b></p> <p>N = 221</p> <p>64.7% F</p> <p>Age range = 20 to 59 years</p> <p><b>Austrian</b></p> <p>N= 143</p>	<p>Design: Cross -sectional</p> <p><b>Predictor:</b></p> <p>Sentiments, Attitudes and Concerns about Inclusive Education – Scale-Revised; (Forlin et al., 2011; SACIE-R)</p> <p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)</p>	<p>1- Italian teachers’ level of self-efficacy was greatest in implementing inclusive instruction (M = 4.73, SD=.59), while they were least confident in managing behaviour (M = 4.14, SD= .63).</p> <p>2- Austrian teachers’ level of self-efficacy was the greatest in implementing inclusive instruction (M = 4.70, SD=.59), while they were least confident collaboration (M = 4.26, SD=.71).</p> <p>3- A weak negative correlation between age range and efficacy in managing behaviour aspect.</p> <p>4- The experience in teaching as further background variable is not significantly related all self-efficacy</p>

	<p>74.8% F</p> <p>Age range = 20 to 59 Years</p> <p><i>Teachers</i></p> <p>Pre-service teachers</p> <p><i>Schools</i></p> <p>No schools reported</p>		<p>dimensions.</p> <p>5- Attitudes regarding inclusion dimension reveals a significant correlation with two self-efficacy dimensions: Efficacy in collaboration and efficacy in inclusive instruction.</p> <p>6- In attitude scores the real mean scores between the groups show significant differences beside for two self-efficacy aspects; particularly, for efficacy in managing behaviour and efficacy in inclusive instruction (higher attitude scores for the Italian sample, higher efficacy in managing behaviour scores for the Austrian sample).</p>
<p>20) Yada &amp; Savolainen (2017)</p> <p>“Japanese in-service teachers’ attitudes toward inclusive education and self-efficacy for inclusive practices”</p>	<p>Country: Japanese</p> <p>N=359</p> <p>53.5% F</p> <p>43.7% M</p> <p>2.8% N/M</p> <p>Mean age: 42.41 years (SD=11.82)</p> <p><i>Teachers</i></p>	<p>Design: Cross- sectional</p> <p><b>Predictor:</b></p> <p>Sentiments, Attitudes and Concerns about Inclusive Education – Scale-Revised; (Forlin et al., 2011; SACIE-R)</p> <p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012;</p>	<p>1- Overall, the Japanese teachers' self-efficacy for inclusive practices was at a low level (M =3.74 on the TEIP scale, which ranged from 1 to 6) by comparison in consequence of previous studies conducted in other countries.</p> <p>2- The Japanese teachers' score of self-efficacy in using inclusive instruction was the top of the three sub-dimensions (M = 3.84), while they were least confident in managing students’ problematic behavior in their classroom (M = 3.55).</p> <p>3- Overall, Japanese teachers’ self-efficacy for inclusive practices related to statistically significantly (p &lt;</p>

	<p>In-service teachers</p> <p><i>Schools</i></p> <p>Primary and secondary schools</p>	TEIP)	<p>0.01) with overall attitudes and the three sub-scales. Of the three sub-scales of self-efficacy for inclusive practices, self-efficacy in managing behavior correlated most strongly with overall attitudes (<math>r = 0.357</math>), and it was especially associated with concerns (<math>r = 0.359</math>). Further, self-efficacy in collaboration was moderately correlated with overall attitudes (<math>r = 0.355</math>).</p> <p>4- The result showed that efficacy in collaboration was the strongest predictor of general attitudes toward inclusive education (<math>\beta = 0.254, p &lt; 0.01</math>). In addition, the beta value for efficacy in managing behavior was slightly lower (<math>\beta = 0.232, p &lt; 0.01</math>), but it was also a powerful predictor of general attitudes toward inclusive education. For the teachers' two demographic information variables, only their teaching experience (<math>\beta = 0.107, p &lt; 0.05</math>) had an effect on general attitudes. The effect was negative, indicating that the teachers with longer periods of experience had slightly more negative attitudes</p>
21) Kormos & Nijakowska (2017) "Inclusive practices in teaching students with dyslexia:	<p>Country: European countries including the UK, America, Asia, Australia, Africa.</p> <p>Pre- course N= 940</p>	<p>Design: Coursework</p> <p>Course which is based on the pedagogical model took place over four weeks. Each week</p>	<p>1- Post-course self-efficacy beliefs were dramatically higher than in beginning of the course(PreM = 3.65, SD = .88, PostM = 4.82, SD = .60).</p> <p>2- Attendants with no prior training, and no previous experience of working with dyslexic students were</p>

<p>Second language teachers' concerns, attitudes and self-efficacy beliefs on a massive open online learning course"</p>	<p>Post-course N=630  Pre-course = 92.8% F  Post-course =8.2% M  No age reported</p> <p><i>Teachers</i>  In-service teachers</p> <p><i>Schools</i>  Primary and secondary schools</p>	<p>covered one module. The topics in the modules were respectively:</p> <p>1- Developing teachers' understanding of specific learning difficulties and their effect on learning additional languages.</p> <p>2- The principles and practice of inclusive language teaching and the use of educational technolog</p> <p>3-Developing the vocabulary and grammar skills of dyslexic language learners.</p> <p>4- Developing phonological and orthographic awareness and reading skills.</p> <p>At the end of the course, the results were monitored by multiple</p>	<p>considerably less confident the needs of dyslexic language learners in their classrooms.</p> <p>3- Previous training, and experience of teaching dyslexic students were non-significant and only self-reported knowledge of dyslexia was significantly associated with self-confidence in implementing inclusive language teaching practices in post-course.</p> <p>4- Teachers who work in primary education and special education teachers, and years of teaching experience were found to have significantly higher self-efficacy in pre-course but none of the demographic variables were dramatically related to self-efficacy beliefs in post-course.</p>
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		<p>choice quizzes with feedback and peer-assessment tasks.</p> <p><b>Predictor:</b></p> <p>Sentiments, Attitudes and Concerns about Inclusive Education – Scale-Revised; (Forlin et al., 2011; SACIE-R)</p> <p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)</p>	
<p>22) Özokcu (2018)</p> <p>“The relationship between teacher attitude and self-efficacy for inclusive practices in Turkey”</p>	<p>Country: Turkey</p> <p>N: 1163</p> <p>62.8% F</p> <p>37.2% M</p> <p>No age reported</p> <p><i>Teachers</i></p> <p>In-service teachers</p>	<p>Design: Cross -sectional</p> <p><b>Predictor:</b></p> <p>Sentiments, Attitudes and Concerns about Inclusive Education – Scale-Revised; (Forlin et al., 2011; SACIE-R)</p> <p>Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012)</p>	<p>1- A positive meaningful relevance was determined between the teachers’ scores on the attitude scale, and teachers’ scores on the efficacy scale and the scales various sub-dimensions. Additionally, this relationship was defined to be highest between the attitude scores and the CE sub-scale scores(<math>r=.273</math>, <math>p&lt;.05</math>).</p> <p>2- According to the standardized regression coefficient (<math>\beta</math>) results, the importance of the predictive factors on the scale scores is in the order of CE, IE, and BE, respectively. Considering the t-test results regarding the significance of the regression coefficients, it was</p>

	<p><i>Schools</i></p> <p>Preschool, classroom, subject-matter, and special-education teachers.</p>		<p>determined that the scores for CE and IE are significant predictors of the teachers' attitude scores; however, the BE score was not determined to be a significant predictor of the teachers' attitudes (<math>R=.283</math>, <math>R^2=.080</math>, <math>F_{3-1159}=33.673</math>, <math>p=.000</math>).</p>
<p>23) Aielloa &amp; Sharma (2018)</p> <p>“Improving intentions to teach in inclusive classrooms: The impact of teacher education courses on future Learning Support Teachers”</p>	<p>Country: Italy</p> <p>N = 102</p> <p>91% F</p> <p>9% M</p> <p>Age range = 26 to 55 years</p> <p><i>Teachers</i></p> <p>In-service teachers</p> <p><i>Schools</i></p> <p>Nursery, primary, lower or upper secondary schools</p>	<p>Design: Coursework</p> <p>Course was divided into different modules totalling 750 hours composed of lectures, tutorials, workshops, on-site teaching practice and tutorials regarding inclusive education.</p> <p><b>Predictor:</b></p> <p>Attitudes towards Inclusion Scale (Sharma &amp; Jacobs, 2016)</p> <p>Intentions to Teach in Inclusive Classrooms Scale (Sharma &amp; Jacobs, 2016)</p> <p>Teacher Efficacy for Inclusive Practices Scale</p>	<p>1- Regarding the differences between the pre-test and the post-test, there has been a rising trend for self efficacy at the end of the course.(PreM=4.63, SD=.35, PostM=4.98, SD=.23) As a result of the constructed t test it was found that there was a significant difference in favor of participants' self-efficacy post-test scores.</p>

		(Sharma, et al., 2012) Concerns about Inclusive Education Scale (Sharma & Desai, 2002).	
24) Boynton Hauerwas & Mahon (2018) “Secondary teachers’ experiences with students with disabilities: Examining the global landscape”	Country: Armenia, Bolivia Bulgaria, Cambodia, Chile Colombia, Dominican Republic Ecuador, Haiti, India, Jordan Mali, Nicaragua, Niger Republic Poland, Romania, Russia Ukraine, Yemen, Zambia, N: 21 No gender reported No age reported <i>Teachers</i> In-service teachers <i>Schools</i> Secondary schools	Design: Cross sectional <b>Predictor:</b> Teacher Efficacy for Inclusive Practice Scale (Sharma et al., 2012; TEIP)	1- The mean efficacy score for the secondary teachers was 4.5 out of 5 showing high self-efficacy for inclusion. <i>T</i> -tests indicated that the teacher’s efficacy for instruction was higher than their efficacy for both behaviour and collaboration. 2- No differences were found on the total scale depending upon the teachers’ years of teaching ( $F_{2,19} = 0.146$ , $p = .865$ ), level of education ( $t_{18} = -0.431$ , $p = .671$ ), experience teaching students with special needs ( $F_{2,19} = 0.165$ , $p = .215$ ) or their reported legislation knowledge ( $F_{2,19} = 0.514$ , $p = .607$ ). 3- Teachers with professional development training about inclusion and special education needs had significantly higher self-efficacy on the scale overall ( $t_{18} = 2.52$ , $p = .037$ , $d_{\text{cohen}} = 1.01$ ) and on the factors of behaviour ( $t_{18} = -2.10$ , $p = .05$ , $d_{\text{cohen}} = 0.94$ ) and collaboration ( $t_{18} = 2.44$ , $p = .025$ , $d_{\text{cohen}} = 1.1$ ).

### **4.3 Discussion of Pre-Service Teachers' Perception of Self-Efficacy Rely on Sub-Scales Regarding Inclusive Practices**

Three of the studies included in the systematised review have illustrated that pre-service teachers showed the highest perception of self-efficacy towards mainstreaming practices in EII (Douglas et al., 2014; Hecht et al., 2017; Peebles and Sal Mendaglio, 2014) compared to the other sub-scales, followed by EMB (Ahsan et al., 2012; Hecht et al., 2017; Specht et al., 2016). The lowest self-efficacy was found in the EC sub-scales (Ahsan et al., 2012; Hecht, et al., 2017; Peebles and Sal Mendaglio, 2014). Collaboration is important to providing a good service for children with a SEN statement in educational settings. It is essential that all teachers, teaching assistants and parents should be aware of disabled children's needs in order to develop logical strategies for both the school and home environments. Therefore, there has emerged a need to give importance to the establishment of training programmes for pre-service teachers to develop collaboration skills in order to improve their perceptions of self-efficacy towards inclusive practices.

Previous experience in communicating with disabled people is related to higher self-efficacy among pre-service teachers. Most teacher license programmes require pre-service teachers to spend time observing in-service teachers, teaching lessons, managing behaviours, collaborating, and reflecting on actual teaching situations that help develop the self-efficacy beliefs of pre-service teachers before they are licensed and are responsible for their own classrooms (Stephenson et al., 2012). When pre-service teachers observe in-service teachers' teaching skills, their self-efficacy levels towards inclusive practices tend to increase (Loreman et al., 2013). Significant interactions and being in the final two years of study can also influence an increase in self-efficacy for pre-service teachers (Romero-Coutreras et al., 2013). For this reason, in order to increase the perception of teachers' self-efficacy towards inclusive practices, it is necessary to increase the amount of time that teachers spend with their special needs students. In this regard, through the training of teachers at university, prolonging the amount of practical training which they have completed in inclusive classes can contribute to the increase in self-efficacy perceptions of teachers towards inclusive practices. In addition, the most important reason underlying the fact that students in the

last two years of university are more likely to have higher self-efficacy regarding mainstreaming practices may be an increase in the information they possess about students with disabilities. As the education level increases, the knowledge of legislation about students with disabilities will also be increased, as well as increasing the teachers' knowledge and competence towards training for students with special needs. This situation illustrates the effectiveness of the curriculum in promoting positive attitudes, high self-efficacy and tolerance with regards to inclusive practices.

Moreover, even though gender was not a significant factor in determining the grade of self-efficacy, men scored higher than women in the behaviour management sub-scale (Ahsan et al., 2012). However, a weak correlation was found between age range and EMB (Hecht et al., 2017). Furthermore, the participants of two-year post-degree programmes indicated higher self-efficacy for managing behaviour and collaboration than those in the one-year post-degree and five-year first-degree programmes. Finally, more than 30 days' experience teaching students with special needs illustrated higher scores on all three TEIP sub-scales (Specht et al., 2016). The results suggest that the increment in pre-service teachers' practical training experience regarding students with special needs will help to improve teachers perceptions of self-efficacy towards inclusive practices.

#### **4.4 Discussion of In-Service Teachers' Perceptions of Self-Efficacy Rely on Sub-Scales Regarding Inclusive Practices**

The six studies included in the systematised review have illustrated that in-service teachers demonstrated the highest perception of self-efficacy towards mainstreaming practices in EII compared to the other sub-scales (Delkamiller et al., 2013; Ekins et al., 2016; Hosford and O'Sullivan, 2016; Montgomery and Mirenda, 2014; Savolainen et al., 2012; Tasnuba and Tsokova, 2015), followed by EMB (Ekins et al., 2016; Forlin et al., 2014; Savolainen et al., 2012). The lowest self-efficacy was observed in the collaboration sub-scale (Ekins et al., 2016; Savolainen et al., 2012; Tasnuba and Tsokova, 2015). These results demonstrate that both pre- and in-service teachers had similar self-efficacy perceptions in the three sub-scales of the TEIP scale, namely collaboration, managing behaviour, and inclusive instructions. Additionally, it seemed that pre-service teachers continue to have the same perceptions of self-efficacy which they have for inclusive practices after starting to provide teaching services. However, as

a result of the increased teaching experience, it is expected that self-efficacy towards inclusive practices will increase in all of the TEIP sub-scales.

There was a positive correlation between special education in-service teachers and the collaboration sub-scale. Mainstreaming teachers showed the highest self-efficacy in managing behaviour. It appears that since mainstreaming teachers have taken a more comprehensive course on applied behaviour analysis at university than the other branch teachers, they may feel more comfortable with behaviour management regarding students with special needs. Additionally, males had greater self-efficacy in managing behaviour compared to their female counterparts (Malinen et al., 2013). In this regard, it can be said that men need to show a more authoritarian attitude than females in terms of basic impulse and existence, which leads to this result. Moreover, even if the demographic factor played a role in some of the cases related to behavioural management, Hosford and O'Sullivan (2016) reported a contradictory conclusion, which is that none of the demographic variables were connected with teaching efficacy beliefs. This is because, according to Hosford and O'Sullivan (2016), much more than demographic features, teachers have a strong belief that the availability of school resources, collaborative structures, and teachers' self-efficacy play a greater role regarding the three sub-scales, particularly in managing disruptive behaviour. A positive relationship was also found between the perception of challenging behaviours and confidence in managing them. In this study, it was found that teachers feel confident to manage challenging behaviours when they receive support from the principal and parents, government policy, resource support from home, and collaboration with parents. As a matter of fact, one of the factors affecting the quality of education in schools is the professional work relations between the 'manager-teacher and teacher-teacher' (Çinkır and Çetin, 2010). For this reason, a successful school principal (Sammons et al., 1995) should adopt a participatory approach by sharing the leadership and adding teachers to the management of the school, the planning of the training programme, and the management of expenditures and other policy decisions (Çinkır and Çetin, 2010).

On a side note, according to Ekins *et al.* (2016), no differences were found between self-efficacy and gender or teachers holding a BA or MA degree. Possibly, the

reason for this is that English teachers have found themselves more satisfied with the social-emotional, cognitive and psychological sense in the classroom environment due to the experience and age factors they have. On the other hand, age or teaching experience did not influence the inclusive instructure or managing behaviour sub-scales. There was a positive correlation, however, between the collaboration sub-scale and age or teaching experience, particularly when teachers were working with young peers, on account of the fact that working with young peers helps special education school teachers to increase their collaboration skills in the classroom environment.

#### **4.5 Discussion of Variables Affecting Overall Teacher Self-Efficacy Regarding Inclusive Practices**

According to the articles, length of training, knowledge of local legislation on disability, confidence in teaching a student with a disability, having significant interaction with disabled students, and level of training all play an important role regarding pre-service teachers's self-efficacy towards mainstreaming practices (Ekins et al., 2016; Malinen and Savolainen, 2013; Peebles and Sal Mendaglio, 2014; Romero-Contreras et al., 2013; Sharma et al., 2015). On the other hand, it seemed that gender was the weakest predictor of the variables with regards to pre-service teachers's self-efficacy in inclusive education settings, whereas males had a higher level of perceived teaching efficacy compared to females (Ahsan et al., 2012; Romero-Contreras et al., 2013). Moreover, in light of the studies, it appears that subject major was also quite a significant predictor. In other words, a pre-service teacher whose major is special education teaching had higher self-efficacy towards mainstreaming practices compared to general education teachers, possibly due to the familiarity of special education teachers in dealing with students with limited verbal fluency, learning difficulties or any other additional needs.

It was determined that the difference between the scores obtained from the teacher self-efficacy scale and the sub-dimension scores of the mainstreaming practices was found to be statistically significant according to the level of education of the teachers in relation to special education. As this difference is due to the teachers who are educated in terms of special education at the upper level, the scores of the teachers who had received upper level education are higher than the other teachers. In the direction of these findings, it can be said that the education received in terms of applying

mainstreaming practices in the classroom environment leads to an increase in the self-efficacy perceptions of teachers regarding inclusive practices. Avradimis *et al.* (2000) stated that teachers who have been well-trained in terms of inclusive education and SEN pupils would have better attitudes towards inclusive practices in the educational setting, and thus they would provide more benefit to students. According to the study conducted by Orel, Zerey and Töret (2004), it was stated that the opinions of the teachers who took courses on inclusive education in the undergraduate programme were more positive. These supported the findings of the current research. In many studies, it has been found that the majority of teachers do not have any knowledge about mainstreaming practices, and they are not trained with regards to inclusion and special needs education (Babaođlan and Yılmaz, 2010; Berry 2011; Çankaya and Korkmaz, 2012; Çerezci, 2015). Moreover, the scores of teachers who stated that they do not have knowledge about legislation and policy related to special education were found to be significantly lower than the other teachers. On the other hand, the scores of the teachers who defined their knowledge of the legislation and politics of inclusive education as good were higher than the teachers who defined it as weak (Orel *et al.*, 2004).

The research conducted in Australia showed that getting in touch with disabled people really affects the level of pre-service teachers' self-efficacy towards mainstreaming practices. Furthermore, most studies have illustrated that the amount of training, experience, subjects, policy knowledge, confidence in teaching a student with a disability, subject major, working with young peers, primary and special education teachers, gender, professional development training about inclusion and SEN, and demographic variables played an important role regarding in-service teachers's self-efficacy in relation to mainstreaming practices (Sharma and Nuttal, 2016). Nevertheless, studies conducted in Armenia, Bolivia, Bulgaria, Cambodia, Chile, Colombia, the Dominican Republic, Ecuador, Haiti, India, Jordan, Mali, Nicaragua, the Niger Republic, Poland, Romania, Russia, Ukraine, Yemen, and Zambia have revealed that gender, demographic variables, previous training experience with dyslexic students, level of education, being a special education or mainstream schools teacher, years of teaching experience, legislation knowledge, and experience of students with a SEN statement were not significantly important in terms of increasing self-efficacy among in-service teachers (Boynton Hauerwas and Mahon, 2018).

#### **4.6 Discussion on the Effects of Academic Preparation Studies on Teachers' Self-Efficacy Perceptions Regarding Inclusive Practices**

There are different suggestions for how to improve teachers' self-efficacy for inclusive practices. In Chao *et al.*'s (2016) investigation, a one-week inclusive education course increased the participants' self-efficacy in terms of collaboration, knowledge of legislation and policies, and confidence in teaching students with SEN.

Also, in Peebles and Mendaglio's (2014) study, pre-service teachers' self-efficacy for teaching in inclusive classrooms was increased after an inclusion course and field experience. In the field experience, direct and individual instruction with students with SEN resulted in growth in the participants' self-efficacy (Peebles and Mendaglio, 2014). Therefore, Peebles and Mendaglio (2014) argued that the type and amount of experience of students with SEN has an important effect on teachers' self-efficacy, and that is why pre-service teachers should be provided with small-group or one-to-one experience with students with SEN.

Moreover, research has illustrated that practical experience can contribute more to the types of skills regarding this sub-scale. For instance, it would be hard to assess one's self-efficacy to control disruptive behaviour without actually having the experience of doing so. Furthermore, research has shown that after inclusion courses, pre-service teachers have still requested more practical experience opportunities to prepare themselves better for teaching students with behaviour disorders (Westling, 2010). In that case, pre-service teachers should have more experience before they graduate.

Following Aielloa and Sharma (2018), when making a comparison between pre- and post-test scores, no significant differences were found in favour of participants' self-efficacy. Likewise, in Forlin *et al.*'s (2014) study, no significant differences were found between the pre- and post-data for the total TEIP. However, it appeared that the female participants' scores had increased dramatically in comparison to their male peers in the post-course. One of the most important reasons for this may be that female teachers do not feel strongly enough about the behaviour management subscale themselves. Moreover, there was no significant difference regarding previous training between the pre- and post-stage of analysis.

In Sharma and Nuttal's (2016) study, an inclusion course decreased the participants' concerns about inclusive education, particularly about how inclusion would affect their relationships with colleagues, their teaching experience, and their students' learning experience. Thus, it could be suggested that in order to improve the attitudes teachers have towards inclusive education, positive experiences of teaching students with SEN are required. These positive experiences are more likely to happen when teachers have sufficient skills and knowledge with regards to including students with SEN.

In Kormosa and Nijakowska's (2017) study, after the post-course, the self-efficacy perception of the participants had increased. Surprisingly, the participants who had a low level of self-efficacy before the course, as they did not have any training or experience regarding dyslexic children, did not show any change after the course. In this regard, factors that affect the perception of self-efficacy of participants can be considered, such as indirect experiences. It may be that even though the participants did not have any direct experience with dyslexic learners, the lessons they received or the higher awareness they had for the students with special needs might have led them to develop positive attitudes towards them. Moreover, they only self-reported that their knowledge of dyslexia was dramatically related to self-efficacy in implementing inclusive language teaching practices in the post-course. Possibly, the participants' knowledge of dyslexia may have played an important role in increasing their self-confidence. Because of their knowledge of dyslexia, it is natural for participants with self-confidence to feel competent enough in the classroom environment to integrate students. Finally, although the years of teaching and the school types, such as working in primary school and in special education, were significant factors with regards to self-efficacy in the pre-course, it was found that none of these demographic variables were particularly important regarding self-efficacy beliefs in the post-course. In this context, it seemed that the participants in the pre-test who did not receive sufficient training or had no experience might have increased their awareness of their competence after the post-test.

#### 4.7 Discussion of Cross-Country Studies

In their study conducted with South African and Finnish teachers, Savolainen *et al.* (2012) found that the teachers from both countries had relatively high overall self-efficacy in inclusive practices. Nevertheless, the Finnish teachers' self-efficacy perspectives were different to the South African teachers, who considered managing behaviour as their strongest aspect in self-efficacy, while the Finnish teachers stated that to be their weakest ability. The Finnish teachers were the most strong in inclusive instruction, whereas the South African teachers were the least confident in collaboration.

Shaukat *et al.* (2013) found in their study on Pakistani and Australian teachers' attitudes and self-efficacy with regards to inclusive education that the Pakistani teachers had high perceptions of self-efficacy in collaboration with special needs children. The Pakistani pre-service teachers also had higher self-efficacy for teaching students with special needs compared to the Australian pre-service teachers. Shaukat *et al.* (2013) proposed many possible causes such as cultural and contextual differences and the Pakistani teachers' deficit of actual experience to explain the different results between the Pakistani and Australian teachers.

Malinen *et al.* (2013) compared South African, Finnish, and Chinese in-service instructors in their studies. According to the study, the clearest common point among the last South African, Finnish, and Chinese representatives is that experience in instructing learners with SEN clarified the instructors' efficacy measurements in every country, and it had the highest explanatory power among the contained variables in each place as well. The significance of this result was more emphasised by the finding that the impact of instruction experience kept, even when the impact of the instructor type (general or specific branch instructors) was guided. Hence, owning the experience of instructing students with SEN in further special education appears to be significant. However, it is important to note that pre- and post-test studies, therefore, are not methodologically robust if they have no control group. This cross-cultural result is parallel to self-efficacy theory (Bandura, 1977; 1994) in which competence experiences are known to be the forthcoming dominant resource of efficacy measurements. Instructing learners with special needs is among the most basic approaches to achieve

such experiences of brilliant inclusive education, which is a quite natural consequence. In South Africa, Finland and, China the structure clarified the best variance in the cooperation sub-scale of self-efficacy. Interestingly, former results have also clarified the place of instructors' capability to coordinate. Malinen *et al.*(2012), besides Savolainen *et al.* (2012), suggested that EC was a quite affective symptom of instructors' approaches as to inclusive education, while the other sub-scales of self-efficacy did not display such an effect. Several recent documents of policy implications like the McKinsey document, have also highlighted that cooperation between instructors has a significant place in developing school systems (Mourshed et al., 2010, p77).

Hect *et al.* (2017) found that Italian teachers' perceptions of self-efficacy in the collaboration and inclusive instructions sub-scales were higher than Austrian teachers in their study investigating Italian and Austrian teachers' and teacher candidates' self-efficacy. Conversely, in the behaviour management sub-dimension, the Austrians perceived themselves more adequately. According to Bandura (1995), one of the primary phenomena which affects student self-efficacy is peer modeling, or the act of students observing their peers successfully complete a task through arduous persistence. Bandura suggested that observing a similar peer (i.e. a model) showing high academic achievement and strong self-efficacy beliefs might contribute to students with lower self-efficacy beliefs increasing their self-efficacy and, in turn, achieving greater academic success. Wang and Lin (2007) echoed Bandura by stating, 'students with high efficacy beliefs not only have modeling effects on other group members, but are also more likely to transmit their efficacy beliefs through interactions with others' (p 2265). Investigating the impact of collaborative learning on self-efficacy beliefs would greatly improve the overall body of literature and advance the understanding of both fields of study. The favourable relationship based upon collaborative learning and students' academic achievement can be promoted by the positive effect peer modeling has on students' self-efficacy beliefs. Further study of these relationships will foster an understanding of the role self-efficacy, and particularly peer modeling, plays in the relationship between collaborative learning and academic achievement (Robertson, 2012).

Moreover, social cognitive theory being associated with efficacy expectations is an outcome expectancy. Bandura states efficacy as an individual's belief that he or she can perform the necessary actions of a task, while outcome expectancy is the person's anticipate of the likely outcomes of performing that task at the expected level (Bandura, 1986; Tschannen-Moran and Hoy, 2001). As suggested by Bandura (1977), Gibson and Dembo (1984) further differentiated between personal teaching efficacy (the belief that one has the ability to effect change in students) and general teaching efficacy (the belief that teaching might impact student outcomes). Previous research has found these two elements to be related to each other only moderately (Tschannen-Moran and Hoy, 2001). This difference allows explain why teachers might believe that certain teaching behaviours will influence student performance (general teaching efficacy), while contemporaneously not believing that they may perform those actions (personal teaching efficacy) (Guskfy, 1987). Conversely, even though teachers might hold their profession in low esteem, they can feel that they are personally effective at what they do (Soodak and Podell, 1996). Furthermore, teacher self-efficacy is described as both context and subject-matter specific (Bandura, 1997). For instance, a teacher can feel capable in one area of study or in teaching one kind of student, however he or she might not feel so capable in teaching other subjects or with differing students (Bandura, 1997; Tschannen-Moran and Hoy, 2001).

Eventually, when examining the results, the differences between countries are striking. Presumably, the differences in the education system, policies and the curricula in different countries play a great role here. It seems that cultural differences and the point of view of society with regards to individuals with special needs should not be denied the importance of these differences.

## **Chapter 5**

### **Conclusion**

The aim of this study was to explore the perceptions of pre- and in-service teachers' self-efficacy regarding inclusive practices by using the TEIP scale. In this regard, one of the most noticeable findings in this study was that both pre- and in-service teachers perceived themselves as most adequate in the inclusive instruction sub-scale, compared to the other sub-scales of the TEIP. This means that pre- and in-service teachers perceived themselves to be sufficient in designing learning tasks to accommodate learners bearing disabilities at school, using a variety of assessment strategies, measuring learner understanding of what they have instructed, supplying proper challenges for highly competent learners, supplying an extra description or clue if learners are puzzled, and getting learners to study in cooperation as pairs or as small groups. Pre- and in-service teachers perceived themselves moderately in the behaviour management sub-scale. Conversely, pre- and in-service teachers felt themselves most inadequate in terms of collaboration, compared with the other sub-scales.

The strongest predictor was found to be field experience for pre-service teachers' self-efficacy regarding inclusive applications. Gender was the weakest predictor variable, even though males had a higher grade of perceived teaching productivity compared to females, among the pre-service teachers. It was found that subject major was also an important predictor for pre-service teachers whose major was special education. It was conceived that special education instructors had more self-efficacy with regards to mainstreaming practices compared to general education teachers. Moreover, previous experience in engaging with disabled people illustrated significantly more self-efficacy among pre-service instructors.

It was apparent that special education in-service teachers had higher self-efficacy in the collaboration sub-scale. Mainstreaming teachers demonstrated the greatest self-efficacy regarding the managing behaviour sub-scale. Additionally, males had the highest self-efficacy in managing behaviour in comparison with their female peers. Moreover, school resources, collaborative structures and in-service teacher efficacy beliefs had an important effect with regards to the three sub-scales, specifically in managing disruptive behaviour. A positive correlation was also found between the

perception of challenging behaviours and confidence in managing them. Subsequently, the management of challenging behaviours was linked to support from principals and parents, government policy, resource support from home and collaboration with parents. It was seen that there was no similarity between the degree of in-service instructors' with respect to self-efficacy in mainstreaming applications. Furthermore, working with young peers had a meaningful impact in the sense of in-service teachers' self-efficacy. Age or teaching experience, however, did not influence the inclusive instruction or managing behaviour sub-scales. On the other hand, it was observed that there was a positive correlation between the collaboration sub-scale and age or teaching experience. It was shown that special education school teachers and specialist provisions had a degree of importance regarding higher efficacy in collaboration.

According to the included studies, the factors affecting the overall instructor self-efficacy for inclusive applications covering both pre- and in-service instructors contained: experience, length of training, knowledge of local legislation or disability, confidence in teaching a student with a disability, having significant interaction with disabled students, and level of training.

Four academic preparation studies out of the six which were conducted to evaluate the self-efficacy perceptions of pre-service teachers showed that teacher training contributed to the development of pre-service teachers' collaboration, knowledge of legislation, and self-confidence in teaching skills. On the other hand, two academic preparation studies illustrated that there was no significant differences between pre- and post-test scores in terms of increasing the perception of self-efficacy regarding inclusive practices.

The results of four cross-country studies have shown that teachers' self-efficacy perceptions towards mainstreaming practices differ from country to country. In my opinion, this might be due to different education policies in each country. Additionally, it was concluded that collaboration was an important sub-scale in terms of teachers' self-efficacy regarding mainstreaming practices, and teaching experience was an effective predictor of the collaboration sub-scale.

## **5.1 Limitations of the Study**

One of the limitations of this study is its reliance on other primary sources, over which it is not possible to have control over the quality. Necessarily, the search was not comprehensive. Limited databases were searched and grey literature was not included, so there is likely to be publication bias. Besides that, all of the articles that were chosen for the study had to be peer reviewed articles to promote and ensure the quality of the research. Since conference presentations do not have a peer reviewing process, they were not included in the research. However, only to rely on published work leads to publication bias. This means the possibility of studies being published with statistically significant results was higher, which creates a bias in published literature, and then this bias was reflected in the literature-based studies. Moreover, the limited number of studies evaluating pre- and in-service teachers' self-efficacy perceptions for inclusion applications that meet the inclusion criteria of the research have also restricted the research. A quality assessment of the studies is not included, and so it is not possible to understand fully the robustness of the conclusions being drawn. In this study, conference presentations were excluded. A narrative (vote counting) approach was used for the data synthesis. Therefore, the data source was limited to published articles only. Theses and qualitative studies were not addressed due to time constraints and word limitations. This can be expressed as another limitation of the research. Thus, when evaluating the results, it is important to consider these limitations.

## **5.2 Recommendations**

According to this systematised review's results, it can be suggested that future pre-service and in-service teacher training programmes ought to develop teachers' self-efficacy with an emphasis on it, especially their collaboration skills, as well as training their self-efficacy in behaviour management and inclusive instruction. It might be useful to change teacher training programmes in order to improve the collaboration skill of teachers regarding mainstreaming practices. Therefore, in the direction of the findings of this study, teachers' attitudes can be more favourable regarding inclusive practices if they had faced more proper learning experiences on mainstreaming practices in cooperation with their peer instructor trainees at the time of their first teacher education programmes.

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### APPENDIX A. List of Excluded Studies and Reasons for Exclusion in Alphabetical Order

No	Excluded Studies	Reason for exclusion
1.	Aiello, P. et al., (2017) A study on the perceptions and efficacy towards inclusive practices of teacher trainees. <i>Italian Journal of Educational Research</i> , 19, pp13-28.	The structural validity of the TEIP scale
2.	Anglim, J., Prendeville, P. & Kinsella, W. (2018) The self-efficacy of primary teachers in supporting the inclusion of children with autism spectrum disorder, <i>Educational Psychology in Practice</i> , 34(1), pp73-88.	Qualitative study
3.	Cardona, M.C. & Abery, B.H. (2017) The Spanish version of the teacher efficacy for inclusive practice scale (TEIP-e): Tool to measure competence for teaching in inclusive settings, in F. Dovigo & L. Casanova (Eds.) <i>Good Practices for Equity and Inclusion in Higher Education</i> , 6, pp61-67.	The structural validity of the TEIP scale
4.	Dunst, C.J. & Bruder, M.B. (2014) Preservice professional preparation and teachers' self-efficacy appraisals of natural environment and inclusion practices, <i>Teacher Education and Special Education</i> , 37(2), pp121-132.	Teacher self-efficacy for inclusive practices not an outcome variable
5.	Forlin, C. (2013) Issues of inclusive education in the 21st century. <i>Gakushu Kai-Hatsugaku Kenkyu</i> , 6, 67-81.	Commentary paper
6.	Fraser, L.Z. & Lancaster, J. (2012) Enhancing the inclusive self-efficacy of preservice teachers through embedded course design, <i>Education Research International</i> , 2012, pp1-8.	Teacher self-efficacy for inclusive practices not an outcome variable
7.	Griffin, M.M., et al., (2012) Characteristics of inclusive faith communities: a preliminary survey of inclusive practices in the United States, <i>Journal of Applied Research in Intellectual Disabilities</i> , 25, pp383-391.	Teacher self-efficacy for inclusive practices not an outcome variable
8.	Hutzler, Y & Barak, S. (2017) Self-efficacy of physical education teachers in including students with cerebral palsy in their classes, <i>Research in Developmental Disabilities</i> , 68 (2017), pp52-65.	Teacher self-efficacy for inclusive practices not an outcome variable
9.	Koji, K. (2016) Development and the factor structure of the Japanese version of the teacher efficacy for inclusive practices scale (TEIP-J), <i>International Journal of Psychology</i> , 51(1), p50	The structural validity of the TEIP scale
10.	Kristiana, I.F & Hendriani, W. (2018) Teaching efficacy in inclusive education (IE) in Indonesia and other Asia, developing countries: a systematic review, <i>Journal of Education and Learning (EduLearn)</i> ,	Systematic Review

	12(2), pp166-171.	
11.	Lai F.T.T. et al. (2016) What are the inclusive teaching tasks that require the highest self-efficacy?, <i>Teaching and Teacher Education</i> , 59, p 338-346.	The structural validity of the TEIP scale
12.	Lo, S. K., Li, P.Y. & Ji, M. et al., (2014) Teachers' perspective on teaching students with autism spectrum disorders in Non-English-Speaking inclusive education setting, International Conference on Education, Economics and Humanities (ICEEH'2014) Jan. 15-16, 2014 Kuala Lumpur (Malaysia).	Conference paper
13.	Loerman, T. (2015) What can be said about teacher self-efficacy for inclusive practice? Insights from a Researcher's Perspective, <i>The Canadian Journal for Teacher Research</i> , 1(2), pp11-14.	Commentary paper
14.	Lu, M. Et al., (2018) Teacher efficacy, work engagement, and social support among chinese special education school teachers, <i>Frontiers Psychology</i> , 9, pp1-8.	Teacher self-efficacy for inclusive practices not an outcome variable
15.	Malinen, O. P., Savolainen, H. & Xu, J. (2012) Beijing in-service teachers' self-efficacy and attitudes towards inclusive education, <i>Teaching and Teacher Education</i> , 28(4), pp526-534.	The structural validity of the TEIP scale
16.	Malinen et al., (2012) Exploring teacher's perceived self-efficacy for inclusive practices in three continents, <i>Australian Educational Researcher</i> .	Commentary paper
17.	Pace, E. M. & Aiello, P. (2015) Facing complexity of inclusive classrooms through reflection on simplex principles, Athens: ATINER'S Conference Paper Series, No: EDU2015-1634.	Conference paper
18.	Pace, E.M. & Aiello P. (2016) How influential is a continuous professional development course on teacher efficacy, attitudes and concerns towards the implementation of inclusive classroom practices?, 9th Annual International Conference of Education, Research and Innovation, 14-16 November, Seville, Spain, pp1126-1132.	Conference paper
19.	Park, M-H. et al., (2014) The teacher efficacy for inclusive practices (TEIP) scale: dimensionality and factor structure, <i>Journal of Research in Special Educational Needs</i> . 16(1), pp2-12.	The structural validity of the TEIP scale
20.	Parsons, L. D., Miller, H. & Deris, A.R. (2016) The effects of special education training on educator efficacy in classroom management and inclusive strategy use for students with autism in inclusion classes, <i>JAASEP WINTER</i> , pp7-16.	Teacher self-efficacy for inclusive practices not an outcome variable
21.	Sharma, U. & Sokal, L. (2015) The impact of a teacher education course on pre-service teachers' beliefs about inclusion: an international comparison, <i>Journal of Research in Special Educational Needs</i> , 15(4), pp276-284.	Teacher self-efficacy for inclusive practices not an outcome variable
22.	Sharma, U. & Sokal, L. (2016) Can teachers' self-reported efficacy, concerns, and attitudes toward inclusion scores predict their actual inclusive classroom practices?. <i>Australasian Journal of Special</i>	Qualitative study

	<i>Education</i> , 40(1), pp21–38.	
23.	Sharma, U., Loreman, T. & Forlin, C. (2012) Measuring teacher efficacy to implement inclusive practices, <i>Journal of Research in Special Educational Needs</i> , 12(1), pp12-21.	The structural validity of the TEIP scale
24.	Šuc, E. et al., (2016) Primary school teachers' attitudes towards inclusive education in Slovenia: a qualitative exploration, <i>Journal of Universal Excellence</i> , 5(1), pp30–46.	Qualitative study
25.	Synnott, L. & Linehan, C. (2017) An investigation into the effects of level of education and years of experience on the perceived self-efficacy of early years educators in Ireland to implement inclusive practices. The British Psychological Society Northern Ireland Branch, 2017 Annual Conference Thursday 23rd March.	Conference paper
26.	Urton, K., Wilbert, J. & Hennemann, T. (2014) Attitudes towards inclusion and self-efficacy of principals and teachers, <i>Learning Disabilities: A Contemporary Journal</i> , 12(2), pp151-168.	Teacher self-efficacy for inclusive practices not an outcome variable
27.	Vaz, S. et al., (2015) Factors associated with primary school teachers' attitudes towards the inclusion of students with disabilities. <i>PLoS ONE</i> , 10(8), pp1-13.	Teacher self-efficacy for inclusive practices not an outcome variable
28.	Wilson, C., Woolfson, L.M. & Durkin, K. (2018) School environment and mastery experience as predictors of teachers' self-efficacy beliefs towards inclusive teaching, <i>International Journal of Inclusive Education</i> , DOI:10.1080/13603116.2018.1455901.	Teacher self-efficacy for inclusive practices not an outcome variable
29.	Yada, A., Tolvanen, A. & Savolainen, H. (2018) Teachers' attitudes and self-efficacy on implementing inclusive education in Japan and Finland: A comparative study using multi-group structural equation modelling, <i>Teaching and Teacher Education</i> , 75, pp343-355.	The structural validity of the TEIP scale
30.	Yada, A., Tolvanen, A. & Savolainen, H. (2017) Teachers' attitudes and self-efficacy on inclusive education: a comparative analysis between Japan and Finland, ECER 2017, Copenhagen, Denmark, 21 - 25 August 2017	Conference paper

## APPENDIX B. Teacher Self-Efficacy for Inclusive Practices (TEIP) Scale

1	2	3	4	5	6
Strongly disagree	Disagree	Disagree somewhat	Agree somewhat	Agree	Strongly agree

		SD	D	DS	AS	A	SA
1	I can use a variety of assessment strategies (for example, portfolio assessment, modified tests, performance-based assessment, etc.).	1	2	3	4	5	6
2	I am able to provide an alternate explanation or example when students are confused.	1	2	3	4	5	6
3	I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.	1	2	3	4	5	6
4	I can accurately gauge student comprehension of what I have taught.	1	2	3	4	5	6
5	I can provide appropriate challenges for very capable students.	1	2	3	4	5	6
6	I am confident in my ability to get students to work together <i>in pairs or in small groups</i> .	1	2	3	4	5	6
7	I am confident in my ability to prevent disruptive behaviour in the classroom before it occurs.	1	2	3	4	5	6
8	I can control disruptive behaviour in the classroom.	1	2	3	4	5	6
9	I am able to calm a student who is disruptive or noisy	1	2	3	4	5	6
10	I am able to get children to follow classroom rules.	1	2	3	4	5	6
11	I am confident when dealing with students who are physically aggressive.	1	2	3	4	5	6
12	I can make my expectations clear about student behaviour.	1	2	3	4	5	6
13	I can assist families in helping their children do well in school.	1	2	3	4	5	6
14	I am able to work jointly with other professionals and staff (e.g., aides, other teachers) to teach students with disabilities in the classroom.	1	2	3	4	5	6
15	I am confident in my ability to get parents involved in school activities of their children with disabilities.	1	2	3	4	5	6
16	I can make parents feel comfortable coming to school.	1	2	3	4	5	6
17	I can collaborate with other professionals (e.g., itinerant teachers or speech pathologists) in designing educational plans for students with disabilities.	1	2	3	4	5	6
18	I am confident in informing others who know little about laws and policies relating to the inclusion of students with disabilities.	1	2	3	4	5	6

