Teacher's Self-Efficacy: A Systematic Review

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Abstract

The systematic review of self-efficacy has been conducted between the year 2014 to 2018. The review focuses on mainstream teachers and inclusive teachers' self-efficacy of special needs. Articles that correspond to teacher's self-efficacy were collected online and analyzed in detail. A total of 30 articles on self-efficacy have been chosen and analyzed on mainstream teachers and inclusive teachers' self-efficacy of special needs. Overall, the studies were found to have a positive relationship which affect teachers' self-efficacy on pedagogy, experience, classroom and student management, students' involvement, teaching strategies, and classroom instructions. The negative factors that were identified are job stress and job satisfaction which is a major factor in the decline on the level of self-efficacy of the mainstream teachers. Additionally, a side-factor that leads to low self-efficacy for inclusive teachers who taught students with special needs in inclusive classes is the lack of training or skills. Lack of qualitative research method in analyzing teachers' self-efficacy is identified in the review for both categories of teachers. This study has great implications in understanding the importance of self-efficacy as well as the enrichment of teachers' self-efficacy in the future.

Keywords: Self-Efficacy, Special Needs, Inclusive, Mainstream, Systematic Review

Introduction

Self-efficacy (SE) refers to the belief and confidence in one's own ability and value especially for teachers. SE is also defined as a cognitive process on how we feel about ourselves. According to Bandura (2003), SE is a person's personal form of trust to control various situations that occur in his life. The ability to control the situation refers to the ability to successfully carry out a task in accordance with the established standards. Confidence in the ability to perform tasks efficiently and effectively will influence several factors. These factors are 1) action and behavior control, 2) choice to approach a situation and environment, and 3) perseverance to do certain tasks (Bandura 1997). In an in-depth study, Bandura found that SE played an important role in one's behavior when the theory of SE was based on the diversity of phenomena including imitating other's behavior, psychological reactions to stress, self-control rather than conducting negativity, failure to resign, and persistence to achieve something and to get the desired job.

Tschannen-Moran, Hoy, and Hoy (1998) defined SE as a natural cycle of excellent efficacy that strives to make an effort and persistence leading to improve on performances and bring it back to excellent efficacy. Shoulders and Krei (2015) defined SE as a cognitive mechanism that regulates behavior, enhances self-confidence and ability, and helps one to become more skillful and more efficient. SE for a teacher plays an important role in the relationship between teacher and student. Good and friendly relationship between teachers and students are very important and has an impact on a variety of situations that will lead to positive results. Many studies have been conducted to assess the role of SE in education. Meta-analysis, systematic reviews, and research in the field of education were also conducted to examine the differences in SE related issues among teachers.

Klassen and Durksen (2014) conducted a systematic review on SE published in Teacher and Teacher Education since 1985. The main focus of the study was the instruments used, factors of analysis, culture, sample, content, teacher's command, and the well-being of teachers. Meta-analysis by Steven and Hansel (2015) also examined how far SE affects the commitment of teachers in teaching. Steven and Hansel (2015) focused on 33 quality articles and the findings on SE showed significant relationships with teachers' working commitments. Zee, Koomen, Jellesma, Geerlings, and Jong (2016) made a systematic review of teachers' SE for a period of 40 years in terms of class effectiveness, students' achievement, and teachers' welfare. The findings showed that teachers' SE had direct and indirect effects on classroom ecology. However, the findings showed that there was a significant correlation between SE and those factors.

In this systematic review, the focus is on mainstream teachers and inclusive teachers' SE. A total of 30 related articles in the Education field were selected. The in-depth analysis is based on teachers' SE of special needs which included 15 articles on mainstream teachers and 15 on inclusive teachers. The selected articles are the latest articles published in the Education field and focused on teachers' SE for a period of four years from 2014 to 2018.

Method

The systematic review of this study is to identify several important factors that are always used in each of the previous studies. Amongst these factors are theories, instruments, and factors affecting teachers' SE. Few aspects such as authors, years, location, samples, instruments, variables, and research findings have been focused. The articles covered are derived from the Elsevier database, Sage Journal, Wiley Online Library, Cambridge Core, Research Gate, Macrothink Institute, Research Online, and Taylor and Francis Online. The SE articles were searched using terms such as SE in general teachers and SE in inclusive teachers of special needs. The articles searched are those published over a period of four years from 2014 to 2018. There are three main questions highlighted in this systematic review:

1. What are the literature research on SE that have been conducted from 2014 to 2018 between mainstream teachers and inclusive teachers of special needs?
2. What are the SE theories and instruments used to conduct the research between the mainstream teachers and inclusive teachers of special needs?
3. What are the SE factors that have been reviewed between mainstream teachers and inclusive teachers of special needs?

Many research has been conducted on SE from 1960 to 2018 including systematic reviews and meta-analysis. Thus, the researcher would like to formulate the latest articles in the last four years. However, research articles on SE in the field of education are limited and lack in quality. There is no systematic review research studied between SE of mainstream teachers and inclusive teachers of special needs. The articles obtained were refined by identifying the exact term through abstract reading. The articles were categorized by years and 50 articles on SE were obtained. Subsequently, the articles obtained were filtered by selecting studies related only to SE and in the field of education during the last four years. The abstracts were read once again until the number of SE articles are reduced to 15 for the mainstream teachers and 15 for the inclusive teachers.

Reviewing the Literature
The articles have been reviewed in detail. This is also intended to facilitate in answering the three main research questions.

SE Articles in Teaching Field
This section is a discussion of articles related to SE. The study of articles covered titles, author, years, location, samples, instruments, analysis, and research focus for each article. A total of 30 SE articles were identified consisting of 15 articles on mainstream teachers whereas the other 15 on inclusive teachers. These articles are from the past four years from 2014 to 2018. The studies covered various countries worldwide including Germany, Australia, Europe, United States, Hong Kong, Japan, Canada, Vietnam, Netherlands, and Finland. This demonstrates the importance of teachers' SE in the education system and in the field of education including pre-service and in-service teachers. Park, Dimitrov, Das, and Gichuru (2016) found that SE is very important in everyday teaching and learning style for all students of difference races. SE helps students to excel in academics and assists in school's excellences (Depaepe & Konig, 2018; Geerlings, Thijs & Verkuyten, 2017). Even Schipper, Goei, Vries, and Veen (2018) and Yada and Savolainen (2017) emphasised the importance of teachers' SE among the teachers of special needs students in inclusive classes. Teaching using multiple strategies, student management, and various behaviour management is a key factor in the inclusion of inclusive teachers to control inclusive classes. These will help the special needs students to be more confident in understanding what they are learning.

In the 30 articles studied, it was found that only two articles conducted a qualitative study which consists of an article from the mainstream teachers and an article from inclusive teachers. Neve, Devos, and Tuytens (2017) carried out a qualitative study on teacher trainees who had undergone their practicum, teachers in service, and teacher's assistants to special needs students in inclusive classes. It is found that all of them require more training and support to teach the students. Their SE is at a low level because they feel they require special training on special needs students to gain knowledge on how to manage them.

Phon and Locke (2015) conducted a study on the mainstream teachers and found that teachers' SE are influenced by the experience of cognitive mastery. Data finds that teachers who are less likely to receive feedback from colleagues and administrators as well as receiving negative opinions from lecturers while learning will cause them to have low efficacy. This qualitative study is

able to elaborate on the problems of mainstream teachers and inclusive teachers as they can answer more clearly when interviewed. In fact, qualitative studies have also been suggested by some researchers such as Chao, Chow, Forlin, and Ho (2017); Kormos and Nijakowska (2017); Sharma and Sokal (2016); Bent, Bakx, and Brok (2016); and Zee et al. (2016). According to the researchers, teachers' perception about SE can not only be evaluated through questionnaires but also require interviews and observations to obtain more authentic findings (Chao et al. 2017; Kormos and Nijakowska, 2017; Sharma and Sokal 2016; Bent et al. 2016; Zee et al. 2016).

Theories and Instruments
This section will review the number of articles based on theories and instruments that were frequently used in the study of the 30 articles chosen from 2014 to 2018. Based on the articles reviewed, most of them used Bandura (1982) and Tschannan-Moran's (2001) theory either in their whole article or in the framework of the theory as well as in the discussion of their articles. The importance and necessity of SE in a teacher is summarized in detail in each article and in fact, its importance is also discussed in depth. According to Bandura (1982), teacher's SE affects the organization, academic assignment of teachers in the classroom, and the way a teacher assessed a student based on his or her ability.

Tschannen-Moran et al. (1998) gave the concept of a new theory of efficacy based on Bandura's study. It is stated that there are four things that influence a teacher's SE. They also take into account the importance of analyzing a teacher's work and assessing their strengths and weaknesses in completing the assignment (Tschannen-Moran et al., 1998). Tschannen-Moran et al. (1998) defined SE as a natural cycle of excellent efficacy that will lead to effort and persistence leading to better performances and bringing it back to excellent efficacy. It is found that almost all the articles discussed over the past four years have made these theories as the basis of their study.

The findings regarding instruments used in the 30 articles throughout 2014 to 2018 showed that some instruments were very high in terms of their usage. For studies relating to mainstream teachers' SE, Revised The Teacher Sense of Efficacy Scale (R-TSES) (Pfitzer, 2014) was used for articles A1, A3, A4, A8, A9, A12, A14, and A15. Meanwhile, Teacher Sense of Efficacy Scale (TSES) (Schwarzer & Jerusalam, 1999) and General Self Efficacy Scale (GSEC) (Schwarzer & Schmitz, 1999) were used in article A5. On the other hand, the Teacher Efficacy in Inclusive Practice (TEIP) (Sharma, 2012) was used in articles B5, B6, B7, B9, B10, B11, and B15 to assess the SE level and SE perception of teachers in special classes or inclusive students program. For article B2, TEIP was used in Japan but it was modified in Japanese and for article B13, the TEIP used was adapted from Sharma (2011). The use of these instruments in the studies is to help researchers assess the extent of their understanding and importance of teachers' SE when implementing teaching and learning in the classroom. In fact, SE is also needed to minimize stress and concerns of teachers in carrying out their assigned tasks.

Factors in SE
This section will examine frequent factors involved in the study of the 30 articles from 2014 to 2018. There are 14 SE variables studied in the 30 research articles over a period of four years from 2014 to 2018. The SE is assessed whether there is a relationship with the variables. Among the variables that are favored by researchers for both groups of teachers are teacher demographic, teacher experience,

students management, behavior management, students' involvement, classroom management, teaching strategies, various instructions, level of confidence, self belief, and professional development.

The other variables such as stress, job satisfaction, internal factors and external factors as well as teacher's autonomy are only studied among the mainstream teachers while variables such as skills, training, and collaboration are only studied among the inclusive teachers. Their SE are strongly influenced by these variables as they contribute to the factor of increasing the confidence of teachers in their ability and expertise in carrying out any assignment without giving up (Bandura, 1997). Therefore, studies focusing on these variables should be continued in order to obtain positive feedback from teachers and ensure a high level of SE is maintained. In addition to these variables, other variables such as administrators' support, colleagues, families, and teacher's own ability are found to be key factors in teachers' SE (Chao et al. 2017; Phon & Locke 2015; Katz 2015).

There are many studies conducted to analyze the relationship of SE with other variables and it is found that some variables play an important role in improving teachers' SE. Sharma, Shaukat, and Furlonger's (2014) study regarding mainstream teachers of special needs in inclusive classes found that pre-service students were surveyed as unprofitable as they have not been taught in the field and are not teaching in a real inclusive class. These students were found to learn more about inclusiveness for medical purposes instead of learning a special way of teaching special needs students in inclusive classes. There are even students who have never mingled with special needs students and have no experience with them. This causes their efficacy level to be very low. Their lack of training also leads to low level of SE.

Lauermann and Konig's (2016) study for the mainstream teachers found that there was no significant correlation between gender with SE and teachers' pedagogy. Their data also showed that teachers' performance is less effective if they are older and more experienced and suffered from work pressure. Novice teachers and experienced teachers have low self-efficacy on pedagogical knowledge than moderate teachers. This is because novice teachers are forced to gain a lot of knowledge and try to diversify their teaching strategies in pedagogical knowledge. Even teachers who have always received various challenges and new information became increasingly ineffective in pedagogy. The data also showed a positive and significant relationship between pedagogical knowledge and SE in teaching and are zero for pedagogical relationship with SE in general. Pedagogical knowledge and SE in teaching are negative in stress. Hence, improvements are needed from time to time to further improve teachers' SE.

Table 1. Systematic Review of Mainstream Teachers' SE (2014-2018)

NO	TOPIC / YEAR	JOURNAL / AUTHOR	METHOD / INSTRUMEN	FINDINGS
A1	General pedagogical knowledge, self-efficacy and instructional practice: Disentangling their relationship in pre-service teacher education 2018	Teaching and Teacher Education Fien Depaepe & Johannes Konig	Survey Teacher Development Education Studies in Mathematics (TEDS-M) The Teacher Sense of Efficacy Scale (TSES)	There was a significant relationship between pedagogical knowledge and teaching strategies. Motivational training is needed to improve the teacher's self-efficacy.
A2	The influence of self-efficacy on entrepreneurial behavior among K-12 teachers 2018	Teaching and Teacher Education Roquo do Carmo Amorim Neto, Vinicius P Rodrigues, Douglas Stewart, Anna Xiao & Jenna Snyder	Online Survey Entrepreneurial Behavior Scale Occupational self-efficacy scale Ohio State self-efficacy scale (OSTES)	There was no significant correlation between Occupational Behavior Scale and Entrepreneurial Behavior because the instrument is too general.
A3	Pre-service teachers' self-efficacy mediates the relationship between career adaptability and career optimism 2017	Teaching and Teacher Education Brad McLennan, Peter McIlveen & Harsha N.Perera	Survey Career Adapt-Abilities Scale (CAAS) The Teacher Sense of Efficacy Scale (TSES) Career Future Inventory (CFI - Career Optimism)	There was a significant relationship between self-efficacy, career adaptation and career confidence.

A4	Teaching in ethnically diverse classrooms: Examining individual differences in teacher self-efficacy 2017	Journal of School Psychology Jolien Geerlings, Jochem Thijs & Maykel Verkuyten	Survey The Teacher Sense of Efficacy Scale (TSES) Strengths and Difficulties Questionnaire (SDC)	Teachers were found to have low self-efficacy in teaching different ethnic classes and having difficulty in transferring knowledge.
A5	Second career teachers: Job satisfaction, job stress and the role of self-efficacy 2017	Teaching and Teacher Education Larissa Maria Troesch & Catherine Eva Bauer	Survey Job Stress Scale General Job Satisfaction Scale General Self Efficacy Scale Teacher Self Efficacy Scale	Teachers were satisfied with their career and less stressed compared to teachers who choose the teaching career as their first option. There was no significant correlation between working pressure with the teachers' self-efficacy.
A6	Teachers' Approaches Toward Cultural Diversity Predict Diversity-Related Burnout and Self-Efficacy	Journal of Teacher Education (SAGE) Tony Gutentag, Gabriel Horenczyk, & Moshe Tatar	Survey Diversity in Organizations: Perceptions and Approaches model (DOPA) Immigration-related self-efficacy Teacher burnout	Teachers and school culture backgrounds have no significant relationship with positive self-efficacy. Schools with cultural diversity affect teachers' self-efficacy but behavior towards cultural diversity has no significant relationship with pressure.
A7	Teachers' professional competence and wellbeing:	Learning and Instruction	Survey Interview	There was no significant relationship between gender

	Understanding the links between general pedagogical knowledge, self-efficacy and burnout 2016	Fani Lauermann & Johannes Konig	Teacher self - efficacy scale General efficacy scale Maslach Burnout Inventory	and self-efficacy and pedagogy. The data also demonstrate a positive and significant relationship between pedagogical knowledge with teachers' teaching self-efficacy.
A8	Primary education teachers' self-efficacy beliefs for teaching Geography lessons 2016	International Research In Geographical and Environmental Education Gert Jan Bent, Anouke Bakx & Perry den Brok	Survey Teacher Sense of Efficacy Scale	The data showed the teachers have simple self-efficacy in teaching geography. They believe internally and externally that they are able to teach with various teaching activities and strategies. The data also showed that the teachers had low self-efficacy than teachers who taught other subjects in emphasizing geography curriculum.
A9	Inter- and intra-individual differences in teachers' self-efficacy: A multilevel factor exploration 2016	Journal of Social Psychology Marjolein Zee, Helma M.Y. Koomen, Francine C.Jellesma, Jolien Geerlings & Peter F de Jong	Survey Teacher Sense of Efficacy Scale	Inter-individual variables were found contributing to high self-efficacy compared to intra-individual variables among teachers in behavior management. The

				internal factors of the teachers play an important role in class management and relationship with students.
A10	The important of job resources and self-efficacy for beginning teachers' professional learning in differentiated instruction 2015	Teaching and Teacher Education Debbie de Neve, Geert Devos & Melissa Tuytens	Survey Ohio Teacher Self-Efficacy Scale Teacher Autonomy Scale Teachers Professional Community Index	Teachers who have confidence and independence are more effective than teachers who are less confident and independent in diverse teaching. There is no significant relationship between professional learning and diverse teaching because new teachers do not have the chance to see other teachers' teaching skills.
A11	Changing Expectations, Same Perspective: Pre-service Teachers' Judgments of Professional Efficacy 2015	Australian Journal of Teacher Education Graham Hardy, David Spendlove & Damien Shortt Edge	Survey Interview GTCE's Code of Conduct and Practice (GTCE, 2009) New DfE Teaching Standards (DfE, 2011)	The data were significant with the GTCE's aim. Teachers' eagerness and trust are high in the early stage of teaching, but it decreased when teachers are forced to face the reality of the teaching profession.

A12	Self-efficacy and causal attributions in teachers: Effects on burnout, job satisfaction, illness and quitting intentions 2015	Teaching and Teacher Education Hui Wang, Nathan C.Hall & Sonia Rahimi	Online Survey Teacher Sense of Efficacy Scale Casual Dimension Scale Maslach Burnout Inventory	The data showed self-efficacy conveys the psychological and physical factors of the teacher including the desire to resign. Teachers who are eager and believe in teaching students and are able to control student behavior are found to have high self-efficacy, less ill and have no desire to resign, and are satisfied with his / her career.
A13	Sources of self-efficacy of Vietnamese EFL teachers: A qualitative study 2015	Teaching and Teacher Education Nya Thi Tuyet Pan & Terry Lock	Interview	Teachers' self-efficacy were affected by cognitive mastermind experiences. The family background and the atmosphere of Vietnamese teachers are educated and the desire to seek information influenced their self-efficacy to be more positive.
A14	Differentiated Instruction, Professional Development, and Teacher Efficacy	Journal for the Education of the Gifted (SAGE) Felicia A. Dixon, Nina Yssel, John M.	Survey Teacher Self-Efficacy Scale (TSES)	There is a significant correlation between teaching strategy and profession development that improves the self-

		2014	McConnell, and Travis Hardin	Teacher Efficacy Scale (TES)	efficacy of teachers. The higher the profession development, the more passionate and creative the teachers are in using various strategies.
A15	Weekly self-efficacy and work stress during the teaching practicum: A mix method study 2014	Learning and Instruction Robert M.Klassen & Tracy L.Durksen	Survey Teacher Self-Efficacy Scale (TSES)	There is no significant difference between self-efficacy and working pressure. Teachers were found to be highly productive throughout the practice because of the lack of workload, the support of environment, and the opportunity to end the practice successfully.

Table 2. Systematic Review of Inclusive Teachers' SE (2014-2018)

NO	TOPIC / YEAR	JOURNAL / AUTHOR	METHOD / INSTRUMEN	RESEARCH FINDINGS
B1	Developing teachers' self-efficacy and adaptive teaching behavior through lesson study 2018	International Journal of Educational Research Tijmen Schipper, Sui Lin Goei, Siebrich de Vries & Klaas van Veen	Quasi Experiment International Comparative Analysis of Learning and Teaching (ICALT) Teacher Self-Efficacy (TSES) TM & WH 2001	The findings were significant on the group of teachers who had intervention through the Teaching Plan focusing on ICALT instruments.
B2	Japanese in-service teachers' attitudes toward inclusive education and self-efficacy for inclusive practices 2017	Teaching and Teacher Education Akie Yada & Hannu Savolainen	Survey SACIE-R (Sentiments, Attitudes and Concerns about Inclusive Education Revised) TEIP (Teacher Efficacy in Inclusive Practice)	The study found that the Japanese teachers faced problems in managing pupils with multiple learning disabilities because the data showed that they had high levels of distressed even though they knew the importance of inclusive classes.
B3	Improving teachers' self-efficacy in applying teaching and learning strategies and classroom management to students with special education needs in Hong Kong	Teaching and Teacher Education Chih Nuo Grace Chao, Wing Sze, Emily Chow, Chris Forlin, Fuk Cheun Ho	Pre and Pos C-TSES (The Teacher Sense of Efficacy Scale-adaptasi dalam bahasa Cina)	The findings showed that the teachers have high self-efficacy in teaching with different strategies to special needs and capable in managing classes well despite the course being

	2017			attended only for a week
B4	Effective inclusive teacher education for special education needs and disabilities: Some more thoughts on the way forward 2017	Teaching and Teacher Education Deborah Robinson	Interview	Teachers' self-efficacy is at a low level because they feel they need special training on how to manage special needs students.
B5	Inclusive practices in teaching students with dyslexia: Second language teachers'' concerns, attitudes and self-efficacy beliefs on a massive open online learning course 2017	Teaching and Teacher Education Judith Kormos & Joanna Nijakowska	Pre and Pos Online Survey SACIE-R (Sentiments, Attitudes and Concerns about Inclusive Education Revised) TEIP	The teachers who were involved in the MOOC were found to have a high self-efficacy in teaching dyslexic students and their level of distressed decreased. Teachers found to be passionate in teaching dyslexic students and teachers who completed many tasks in the MOOC project were more confident and more productive.
B6	What are the inclusive teaching tasks that require the highest self-efficacy? 2016	Teaching and Teacher Education Francisco T.T. Lai, Eria P.Y.Li, Mingxia Ji, Wikki W.K.Wong & Sing Kai Lo	Survey TEIP (Teacher Efficacy in Inclusive Practice)	The data showed a dynamic result. There are many things that influenced teachers' self-efficacy especially in controlling and teaching aggressive

				ADHD students, parents involvement in school activities, lacking skills in addressing disruptive behavioral problems, and teachers encountering problems to help aggressive pupils when there is a difficult task as assignments.
B7	The teacher efficacy for inclusive practices (TEIP) scale: Dimensionality and factor structure 2016	Journal of Research in Special Educational Needs (JORSEN) Mi-Hwa Park, Dimiter M. Dimitrov, Ajay Das & Margaret Gichuru	Survey TEIP (Teacher Efficacy in Inclusive Practice)	The data showed that the teachers have high self-efficacy to teach pre-school students in an inclusive class.
B8	Rural Secondary Educators' Perceptions of Their Efficacy in the Inclusive Classroom 2016	Rural Special Education Quarterly (RSEQ) Tori L Shoulders & Melinda Scott Krei	Survey TSES (The Teacher Sense of Efficacy Scale)	The course or training given to the general teachers is within a short period of time compared to special education teachers. Special education teachers are more prepared before they start teaching than general teachers. General teachers are found to be lacking professional

				development in co-teaching in an inclusive class.
B9	Can Teachers' Self-Reported Efficacy, Concerns, and Attitudes Toward Inclusion Scores Predict Their Actual Inclusive Classroom Practices? 2016	Australasian Journal of Special Education Umesh Sharma & Laura Sokal	Online Survey Interview Observation Teachers' Attitudes Toward Inclusion Scale (TATIS) Concerns about Inclusive Education Scale (CIES) Teachers' Efficacy in Implementing Inclusive Practices scale (TEIP)	Efficiency of teachers were found to be low when collaborating in the classroom. Observation and interviews should be conducted in order to obtain more valid findings. Mentoring and development of the profession are needed to improve the teachers' self-efficacy.
B10	Predicting in service educators' intentions to teach in inclusive classroom in India and Australia 2016	Teaching and Teacher Education Umesh Sharma & Dt Kate Jacobs	Survey Teachers' Efficacy in Implementing Inclusive Practices scale (TEIP)	Studies showed that teachers have high self-efficacy in collaboration to teach special students in an inclusive class but their efficacy to teach pupils in large or small size classes is difficult. The study also showed that high-performing teachers are able to teach with a variety of strategies and able to manage the class

				well and teach them creatively according to the curriculum requirements.
B11	Teaching in inclusive classrooms: efficacy and beliefs of Canadian preservice teachers 2015	International Journal of Inclusive Education Jacqueline Specht, Donna McGhie-Richmond, Tim Loreman, Pat Mirenda, Sheila Bennett, Tiffany Gallagher, Gabrielle Young, Jamie Metsala, Lynn Aylward, Jennifer Katz, Wanda Lyons, Scott Thompson & Sarah Cloutier	Survey The Teacher Efficacy for Inclusive Practice questionnaire (TEIP) The Beliefs about Learning and Teaching Questionnaire (BLTQ)	Male teachers were found to have significantly higher self-efficacy than female teachers. Teachers who were involved with a variety of special education programs and more experienced teachers with special needs students have a higher self-efficacy.
B12	Implementing the Three Block Model of Universal Design for Learning: effects on teachers' self-efficacy, stress, and job satisfaction in inclusive classrooms K-12 2015	International Journal of Inclusive Education Jennifer Katz	Survey Interview Three Block Model (TBM)	The Three Block Model (TBM) helps teachers to have high performance when teaching in inclusive classes. Teachers were more positive when using this model in their teaching.
B13	The impact of direct experience on preservice teachers' self-efficacy for teaching in inclusive classrooms	International Journal of Inclusive Education Jodi L. Peebles & Sal Mendaglio	Survey The Direct Experience Questionnaire (DEQ)	The findings showed high efficacy in teachers who attended inclusive workshops, but they faced a problem

	2014		Teacher Efficacy for Inclusive Practices (TEIP)	and had a low efficacy when they were in the field with special needs students. They were found to have no actual experience or skills to manage these students.
B14	Teachers' Attitudes and Self-Efficacy Towards Inclusion of Pupils with Disabilities in Tanzanian Schools 2014	Journal of Education and Training Roelande H. Hofman & Judith S. Kilimo	Survey Teacher Efficacy for Inclusive Practices (TEIP)	The findings showed the teachers have high level of self-efficacy in teaching students with special needs, but they were found to have negative responses in accepting these students in an inclusive class. The findings also showed that experienced teachers have a positive attitude in managing special needs students compared to novice teachers.
B15	Attitudes and self-efficacy of pre-service teachers towards inclusion in Pakistan 2014	Journal of Research in Special Educational Needs (JORSEN) Umesh Sharma, Sadia Shaukat & Brett Furlonger	Survey Attitudes towards Inclusive Education Scale Teacher Efficacy for Inclusive Practices (TEIP)	The findings showed that the teachers lacked self-efficacy as they had not taught in the field. Teachers were found to learn more about inclusivity for medical purposes rather than learning

			how to teach special needs students in an inclusive class. Lack of training also resulted in low self-efficacy among the teachers.

Gaps in the Literature

The systematic review has identified some of the key factors on the mainstream teachers and inclusive teachers' SE of special needs, but through deep reading there was a gap between the factors or issues not highlighted in the study. It is found that there was a gap in skills and training issues as well as aspects of trust and self-confidence for the mainstream teachers' SE. Whereas for inclusive teachers' SE, there was a gap relating to issues of stress and job satisfaction as well as internal and external factors. It is found that very little research was conducted over the period of four years from 2014 to 2018 based on the 30 articles selected.

Skills and Training

According to Filatov and Pill (2015), teachers found that when the university provides appropriate training, they will have high self-esteem when applying the learned skills in their teaching techniques. Specifically, teachers will feel that they are very successful when what they learn not only gets exposure in terms of materials provided, but they can deepen the function of each element provided in more depth. Hence, they are able to create an exciting and innovative learning environment. Knaggs and Sondergeld (2015) also stated that teacher's SE will increase when the training given among the school teachers corresponds to the teacher. Quality training will always have a positive impact on the teachers' SE as well as affecting the achievement of both students and schools.

Self-Esteem and Confidence

Eroglu and Unlu (2015) and Wyatt (2014) found that most teachers have high confidence in their abilities and have high SE. The high SE and self-confidence affects the behavior of teachers on the development of their profession and their SE internally. The study found that the need for upgrading their skills and skills development played an important role in teacher training while teaching. Eroglu and Unlu (2015) found that there was a significant relationship between confidence and self-confidence between the training that was based on the teachers' SE to improve existing skills and abilities. At the same time, there is also a good relationship between students and teachers when students receive training from high-performance teachers. Eroglu and Unlu (2015) expressed that teachers' confidence and self-esteem to be the basis of high SE teachers and can be formed by upgrading their skills in a variety of situation and ultimately help them improve their existing skills and abilities.

Stress and Job Satisfaction

Sezgin and Erdogan (2015) found that there was a close relationship between feeling and work satisfaction in the classroom. The feeling of good SE teachers contribute to the outstanding achievement of teaching and learning. Sezgin and Erdogan (2015) pointed out that high SE can be seen in the teacher who is easily satisfied with the work he has done compared to training and achievement. In fact, Sezgin and Erdogan (2015) supported that high teacher's SE can enhance the success of the students. However, teachers need to realize that they need to always be self-sufficient because the success of a pupil is not easy to obtain and it is difficult to obtain at one time as they are easily depressed if what is taught is not fully accepted by students in inclusive classes.

Internal and External Factors

According to Chen, McCray, Adams, and Leow (2013), relating to the internal and external factors of teachers' SE, there was a gap between teachers' knowledge about SE and their abilities in terms of their perceptions in teaching preschools. Teachers were found to have high self-esteem in teaching preschoolers but there are still teachers who were less resourceful when teaching a subject that required them to use various concepts. Chen et al. (2013) stated that most teachers are not convinced on what they taught when they are forced to use various concepts in their teaching. The formulation of Chen et al. (2013) is similar to the Bedir's (2015) study which emphasized that teachers be given multiple training and in accordance with the teaching profession so that these teachers can improve their abilities and skills in all areas and not limited to only one field. This factor will indirectly affect the internal and external factors of teachers' SE.

Conclusion

The systematic review has been deeply and thoroughly covered by the SE studies conducted from 2014 to 2018 between mainstream teachers and inclusive teachers of special needs. It is found that there was no significant difference between the two teachers in the variables used in the study. SE is needed in everyone especially teachers so that the teaching and learning process delivered can benefit all students including special needs students. Future studies regarding SE can be conducted with different population, instruments, and methods so that the findings are more valid. At the same time, studies focusing on skills and training, aspects of trust and self-esteem, stress and job satisfaction as well as internal and external factors are also needed. These factors are relevant and have certain functions in improving the SE of all teachers.

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