

# Teacher Efficacy in the Implementation of Inclusive Education: A Literature Review

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## Abstract

Teacher efficacy refers to a teacher's belief in their competence in a given situation. Teacher efficacy has been extensively researched including in the context of inclusive education for students with special needs. This study aims to conduct a literature review on the predictors and consequences of teacher efficacy in the setting of inclusive education. Online literature search was conducted across three databases, namely ERIC, ProQuest, and ScienceDirect. The keywords used in the search was ("Special Educational Needs (SEN)" OR "inclusion" AND (" antecedent "OR" consequence ") AND" teacher self-efficacy. A total of 33 articles (N = 3472) were reviewed through a series of screening steps based on established inclusion and exclusion criteria. The findings show that teacher efficacy predictors come from internal (e.g. knowledge, personality profiles, experience interacting with disabled people, teaching experience, an experience of training) or external (e.g. school climate). Teacher efficacy can have an impact on attitudes and behaviors towards inclusion, work attitude (e.g. burnout, job satisfaction), collective self-efficacy, and student-related decision making (referral bias). There are contradictory research findings and limited research on the impact of teacher self-efficacy on the development of students with special needs. Suggestions for further research in Indonesia will be discussed.

**Keywords:** Teachers efficacy, inclusion, Special Educational Needs (SEN), and review

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## Introduction

The concept of self-efficacy was first introduced by Bandura. It is a concept that focuses on individual beliefs about their ability to achieve success (Bandura, 1997). In its development, self-efficacy is defined as a future-oriented belief in the level of individual competence, that can be demonstrated in a given situation (Tschannen-Moran & Woolfolk Hoy, 2001). Self-efficacy in education is a construct that has been studied for more than 30 years. The study of self-efficacy also brought about the construct of teachers' self-efficacy which applied in various contexts with regard to work satisfaction, student achievement motivation, and student learning

motivation (Tschannen-Moran & Hoy, 2001). In various literatures, the term teacher self-efficacy or teacher efficacy is often used to represent the same concept.

The construct of teacher efficacy is important in the educational process to promote student success (Bandura, 2006). Teachers with high self-efficacy will lead students to achieve success and show greater work satisfaction (Tschannen-Moran & Hoy, 2001). Teacher efficacy becomes increasingly important because teachers pay attention to the effectiveness of teachers internationally (Pajares, 1992; Leigh & Ryan, 2008). Many studies have suggested that school or sociocultural contexts such as differing student groups and classroom situations affect teachers' daily lives and ultimately their performance (Tschannen-Moran & Woolfolk Hoy, 2001; Ross, Cousins, & Gadalla, 1996; Raudenbuch, Rowen, & Cheong, 1992). Smith (2000) found that teachers of special needs students in the mild category, exhibit higher self-efficacy than those who teach students in the moderate or severe categories. Teacher efficacy within the inclusive education is the main focus of this study.

Inclusive education is an education that accommodates all children from diverse backgrounds, such as children with disabilities and disadvantaged social backgrounds (Karten, 2005; UNESCO, 2009). Inclusion for students with disabilities in mainstream schools has grown and gained international support over the last 2 decades (Armstrong, Armstrong, & Spandagou, 2010). The application of inclusion requires teachers who have an understanding and confidence in providing appropriate educational services for "different" children compared to other children by implementing a curriculum and facilitating learning environment (Forbes, 2007; Lindsay, 2007).

Studies of education for students with disabilities (SEN) in inclusive education settings show that high teacher efficacy is one of the dominant factors affecting inclusion implementation (Forlin, Jobling, & Carroll, 2001; Forlin, Loreman, & Sharma, 2014). Teacher efficacy will shape their positive attitude towards inclusive education (Kristiana & Widayanti, 2017; Sokal & Sharma, 2013; Ahsan, Sharma, & Deppeler, 2012). The rejection of inclusive education and the effort to involve students with special needs in regular classes is a form of behavior, influenced

by low teacher efficacy (Lee, Tracey, Barker, Fan & Yeung, 2014). Self-efficacy is important for teachers who teach special needs students because it positively correlates with their work satisfaction (Viel-Ruma, Houchins, Jolivette & Benson, 2010). Furthermore, low self-efficacy causes teachers to largely apply emotional-focused coping subsequently to burnout predictors (Boujut, Popa-Roch, Palomares, Dean, & Cappe, 2017; Awa, Plaumann & Walter, 2010).

Some internal and external factors that have been studied, correlated, or predicted of teacher efficacy in inclusive education are: psychological and emotional conditions, knowledge of inclusion, interaction experiences with individuals with disabilities, experience in inclusion training, teaching experience of special needs students, to support from schools in preparing for inclusive service programs (Wang, Tan, Li, Tan & Lim, 2016; Lorenz, Sharma, Florin, 2013; Finch, Watson, MacGregor & Precise, 2013).

This study aims to identify various contributing factors and consequences of teacher efficacy in the implementation of inclusive education. Literature review with similar topics has not been found from the database used in search. Originality can also be seen from the inclusive education setting that refers to involving students with special needs as oppose to students from multicultural background as found from articles that do not meet the selection criteria. Knowing the various predictors and impacts of teacher efficacy will help provide consideration in defining topics or variables for subsequent studies of inclusion, particularly in Indonesia. In addition, identifying predictors and impacts of teacher efficacy in inclusive education is important because it can be used as a consideration in the implementation and evaluation of inclusive policies in Indonesia.

## **Method**

### *Literature search*

The online literature search was done through three databases, namely Education Resources Information Center (ERIC) with URL address: ERIC.edu.gov; Science Direct with URL address: sciencedirect.com; and ProQuest with URL address: proquest.com. The search was conducted

for one week from 7-15 August 2017 with the publication range limited to the last 10 years (2007-2017). Keywords used in literature search are ("SEN" OR "inclusion) AND ("antecedent" OR "consequence") AND "teacher self-efficacy".

We determined a set of inclusion and exclusion criteria for this literature search. The inclusion criteria include: 1) Examining teacher self-efficacy and 2) The setting of the research include inclusive education that involves students with special needs. Meanwhile, the exclusion criteria consist: 1) The Literature is in English; 2) Full-text can be downloaded; and 3) Research articles or reports in the review (peer-reviewed article).

The literature search from the criteria above, followed by abstract selection, obtained 33 articles: 25 articles from ERIC, five articles from proQuest, and three articles from science direct.

### *Analysis*

Selection process was initially done by identifying: author, publication year, research objectives, sample size, research methods and data collection instruments used, data analysis used, and research results. It resulted in 33 articles to be systematically reviewed: 25 articles from ERIC, 5 articles from ProQuest, 3 articles from science direct.

## **Results**

### *Teacher's knowledge of pedagogy, disability, and inclusive policy*

Knowledge of pedagogy is positively correlated with teacher self-efficacy in teaching and providing educational services for all students including those with special needs (Coleman, 2017). Research on prospective and inclusive teachers in Singapore, Pakistan, Canada, Australia, Hong Kong, and Indonesia shows that knowledge on disability and inclusion policies are important modalities to increase teachers' self-confidence in teaching and interacting with disabled students in inclusive settings (Loreman et al, 2013; Sharma, Shaukat & Furlonger, 2014; Wang et al., 2016; Ekins, Savolainen & Engelbrecht, 2016).

*Personal experience and teaching experience of students with special needs*

In some studies of inclusion, one factor that predicts high self-efficacy of teachers is the personal experience of interacting with individuals with disabilities (Loreman et al, 2013), described as evoking emotions as a source of efficacy for teachers. The experience of interacting with students with special needs in a learning setting, known as disability teaching experience, is a variable that affects teacher efficacy in inclusive education such as in Canada, Australia, Hongkong, Indonesia, Singapore, Austria, Germany & Israel (Loreman et al, 2013; Peebles & Mendaglio, 2014; Sharma et al., 2014; Wang et al., 2016; Schwab, Hellmich & Gorel, 2017; Hutzler & Barak, 2017).

*Experience in training*

The experience of training that supports the professionalism of teachers in teaching at inclusive schools becomes a predictor of teacher self-efficacy. The study of inclusive primary school teachers of students with Autism Spectrum Disorder in Missouri shows that training that supports the professionalism of inclusive teachers is considered the most important by teachers (Finch et al., 2013; Sharma et al., 2014). In more detail, more frequent positive-positively correlated training with self-efficacy teachers (Leyser, Zeiger & Romi, 2011). In fact, only training that affects the self-efficacy of teachers as compared to the experience of teaching disabilities students (Corona, Christodulu & Rinaldi, 2017).

*The situational factor of the school*

A qualitative study of 19 inclusive coordinator teachers in London found that school situational factors included: school leadership, staff relations, teacher-student relationships, and student behaviors found to contribute positively or negatively to teacher self-efficacy (Mackenzie, 2011). School climate includes: school resources, support and cooperation in teaching, student behavior, and autonomy have been studied and influenced teacher self-efficacy at inclusion schools in Ireland (Hosford & O'Sullivan, 2015).

### *Personality profile*

Psychological factors such as personality have been researched and proven to influence teacher efficacy in teaching. Past studies have shown extraversion and neuroticism personality profiles to predispose positive and negative affects, with effective conditions becoming a source of teachers efficacy (Wilson, Woolfson, Durkin & Elliott, 2016). Other personality profiles such as well-adjusted profiles are positively correlated with teacher self-efficacy in contrast to rigid personality profiles negatively correlated with teacher self-efficacy (Navidnia, 2009; Senler, & Sungur-Vural, 2013; Djigic, Stojiljkovic, & Doskovic, 2014; Pereraa, Granzierab, McIlveen, 2018).

### *The consequences of the teacher's efficacy*

#### *Burnout*

Self-efficacy is an antecedent for teacher burnout rates (Sarcam & Sakz, 2014). Studies of 70 inclusive school teachers in Turkey shows that teachers with low self-efficacy tend to show high depersonalization scores in the burnout subscale (Nuri, Demirok, Director, 2017). Another study of 203 teachers who teach special needs students in France, Guyana, Martinique and New Caledonia suggest that teachers with low self-efficacy will often use emotion-focused coping strategies and predict higher burnout rates. Low self-efficacy level teachers will perceive stressful situations as a challenge to overcome, leading to emotional exhaustion (Boujut et al, 2017).

#### *Collective self-efficacy*

An interesting study of collective self-efficacy using social cognitive theory found that teachers with high self-efficacy who works in a system is likely to become "models" for teachers and other school staffs. This is the mechanism that explains how personal self-efficacy positively correlates with teacher's collective self-efficacy in inclusive education (Arslan, 2017).

#### *Attitudes and behavior towards inclusion*

Many studies have shown that teacher efficacy is a key factor to influence teacher attitudes toward inclusion, such as research conducted by Savolainen, Engelbrecht, Nel & Malinen (2012) of 1211 teachers teaching special needs students at the South African inclusive school. It is also

evident in Song's research (2016) against inclusive teachers and special schools in Japan and Korea. The higher self-efficacy of teachers in teaching special needs students in the inclusion class correlates with the teacher's positive attitudes toward inclusion as well as teaching in the classroom (Sokal & Sharma, 2013). The teacher's positive attitude to inclusion is also shown by teachers who have high self-efficacy. High self-efficacy teachers are more responsible for students in their inclusion classes (Sarı, Celikoz & Secer, 2009; Schultz & Simpson, 2013).

#### *Job satisfaction*

Job satisfaction has been researched as one of the impacts of teacher self-efficacy. The study of 1004 inclusive school teachers in the Southeastern region has shown that personal self-efficacy has a direct effect on teacher job satisfaction, whereas collective self-efficacy affects self-efficacy but does not have a direct effect on job satisfaction (Viel-Ruma et al, 2010 )

#### *Bias in placement decisions or referring students*

An interesting study shows the correlation between inclusive teacher efficacy with the decision to refer students. Teachers with low self-efficacy tend to be biased in the decision to locate or refer students, distracting the teachers from focusing on the educational needs of the students (Podell & Soodak, 2010).

## **Discussion**

Our systematic review have identified predictors and consequences of teacher efficacy. Factors identified as predictors of teacher efficacy include internal and external factors. Internal factors include both psychological and non-psychological. Non-psychological factors such as the experience of interacting or teaching disabled students did not always affect teacher efficacy as demonstrated by research, resulting in contradictions among professional teachers and beginners of inclusive schools in Turkey, Midwestern University, New York, Australian University and West Central Scotland (Woolfson & Brady, 2009; Emam & Mohamed, 2011; Shillingford & Karlin, 2014; Sharma & Nuttal, 2015; Corona, Christodulu & Rinaldi, 2017). Psychological factors identified as predictors of teacher efficacy in teaching at inclusive schools

are personality profiles such as extraversion, neuroticism, adaptability, and rigidity (Navidnia, 2009; Senler, & Sungur-Vural, 2013; Djigic et al., 2014; Pereraa et al., 2018). Nevertheless, the role of emotion as a personality trait as a source of self-efficacy has not had its own explanation in the studies.

Situational factors and school climate as an external factor also predict teachers' self-efficacy in teaching in inclusive education programs (Mackenzie, 2011; Hosford & O'Sullivan, 2015). Situational factors, such as school climate, are multidimensional and have not explained in detail the effects on self-efficacy based on their respective dimensions such as principal leadership, school support, student relations, and parent support.

Self-efficacy also has a role in shaping collective self-efficacy, positive attitude toward inclusion, and work attitude. The role of self-efficacy in shaping collective self-efficacy has been demonstrated by Arslan's research (2017). However, there are also studies that show that collective self-efficacy affects the formation of personal self-efficacy (Viel-Ruma et al (2010)). The teacher's job satisfaction and negative (burnout) are also influenced by self-efficacy, both directly and indirectly (Viel-Ruma et al, 2010; Nuri et al, 2017; Boujut et al., 2017).

#### *Theoretical Implication*

The findings from this study include information on the predictors and consequences of teacher efficacy in teaching for inclusive programs. Studies on the consequences of self-efficacy, particularly in inclusive setting, are still very limited. This condition is of particular concern in the efforts to improve and develop the implementation of inclusive policy in Indonesia since 2003 (Kemendiknas, 2010). Self-efficacy is the first construct introduced by Bandura in social cognitive learning theory in 1964 (in Bandura, 1997). Bandura then describes self-efficacy in relation to various fields including academic or school, introducing the term teacher efficacy. The development of the study then confirms the construct of teacher efficacy (i.e. research by Tschannen-Moran & Hoy, 2001). Several external and internal factors have been studied and demonstrated their influence on teacher efficacy in the context of inclusive education, as well as studies on the role of self-efficacy described earlier. This may help future researchers to conduct a more in-depth study on teacher efficacy in the context of inclusive education.



### *Limitations and Direction for Future Research*

This study has been done by starting an online literature search through three databases with the most publications in education and social science in accordance to the chosen topics. There are several other databases that may contain articles on teacher efficacy in inclusive and adapted education used as alternatives for later researchers (e.g. SSCI and springer links). It should also include the word "review" in the search keywords to ensure that no similar reviews have been performed. However, the articles in this study have been limited to peer-reviewed articles so the quality and credibility of the articles can be guaranteed.

Several predictors of teacher self-efficacy in the context of inclusive education identified that have not been covered in this study include: demographic factors (e.g. age, gender, educational background), situational factors (e.g. role of principal leadership type, disability type experienced by students), as well as psychological factors other than personality (e.g. emotion, compassion). The complete and detailed picture of the teacher efficacy predictors is useful for cascading programs and research on interventions to improve self-efficacy of inclusive school teachers.

The presence of contradictory research results as discussed in this section can be a consideration for future studies. For example, future research could explore the personal mechanism of teacher efficacy influence on collective self-efficacy in the context of inclusive education using a separate theoretical perspective. Next, the fact that interactive experience and teaching disabled students have been found to not always affect the self-efficacy of interesting teachers could be investigated further.

The consequences of teacher efficacy who have been identified on the basis of the articles found are still of consequence to the teacher. Teachers are the key to success in education for students, signifying the importance for future studies to examine the impact of teacher efficacy on the achievement and development of positive behaviors on students in the context of inclusive education. Moreover, they could also explore the link between teacher efficacy and

bias, in locating or referring students, towards its impact on students.

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