Teachers' Inclusive Classroom Practices: The Role of Self-efficacy and Demographic Variables

Martanus Ochola Omoro[1] & Mwajabu A.K. Possi[2]
[1] College of Education, University of Dodoma
[2] Mbeya College of Health and Allied Sciences, University of Dar es Salaam
E-mail[1]: omomartan@gmail.com

Abstract
The purpose of this quantitative, correlational study was to examine the role of teachers' self-efficacy and demographic variables during their inclusive practices. A structured questionnaire was used in data collection. The sample of the study consisted of 254 in-service teachers from 18 inclusive primary schools in Tanzania. The study found a statistically significant and positive relationship between teacher self-efficacy and their inclusive practices. Regression analysis indicated that teachers' self-efficacy, particularly in instructional practices, as well as teacher demographics (except gender, age, and education) were considered to be significant factors that predict their inclusive practices. Thus, the study recommends for educational interventions to promote teachers' competence, self-confidence, knowledge, and skills in order to promote inclusive practices in schools in Tanzania.

Keywords: *Teacher self-efficacy, inclusion, inclusive education, student with disabilities, and inclusive classroom practices*

Introduction

Teaching students with diverse characteristics, abilities, and capabilities in general classrooms has been advocated as a cornerstone of inclusive education (IE) (Woodcock & Jones, 2020; Specht et al., 2016). Given its benefits, IE focuses on enabling all learners to participate, collaborate, interact, and learn together despite their needs, differences, and abilities in general education settings (Dea & Negassa, 2019; Specht et al., 2016). In inclusive classrooms, students' potentials are realised and accommodated.

Implementation of IE as a philosophy and practice in many nations is consistent with the Salamanca Statement and Framework for Action on Special Needs Education (United Nations, 1994). It advocates for global commitments to promote equity, equality, and diversity across different educational systems and practices (Woodcock & Jones, 2020). As a growing educational movement, most countries have ideologically shifted from emphasising mainstreaming to IE (Tiwari et al.,

2015), which primarily focuses on the placement of students with disabilities (SWD) in ordinary classrooms. IE requires SWD to access and fully engage in regular education classrooms as opposed to fitting the learner to the needs of general education classrooms, as advocated by the mainstreaming model (Forlin, 2012). In response, various legislation and policy changes have been adopted to improve equitable access and the right to education for SWD. For instance, Tanzania formulated the National Disability Policy (2004), and the Education and Training Policy (1995; 2014). These policies seek to address the educational needs of SWD (Possi & Milinga, 2017).

This led to a significant increase in the number of SWD in regular primary schools in Tanzania, from 42783 pupils in 2017 to 55,758 in 2020 (PO-RALG, 2020). This means that the number of special and integration schools has declined, paving the way for more inclusive schools. However, as good as the policy agenda might sound, it does not necessarily guarantee good practice. Numerous obstacles still persist that thwart fully inclusion of SWD in general classrooms. Examples are variations in conceptual interpretations of inclusion (Forlin, 2012), inaccessible learning environments, and how teachers are prepared to teach SWD in inclusive settings (e.g., Sharma et al., 2017; Westbrook & Croft, 2015), as well as cultural beliefs and attitudes toward SWD (e.g., Possi & Milinga, 2017). These obstacles increase the chances of pedagogical exclusion of SWD in the regular classrooms. One of the possible factors for the continuing exclusivity of SWD could be the teacher factor.

Many teacher-related factors may impact the extent to which the teacher implements inclusive practices. The extant literature has overtly confirmed that teachers need relevant skills, knowledge, and understanding of inclusive practices, as well as attitudes, working values, and competence to be effective in inclusive settings (see Pit-ten Cate et al., 2018; Hofman & Kilimo, 2014). Heterogeneity of students in inclusive classes poses challenges to teachers because their roles and responsibilities do increase. Also, teachers continue to have concerns about their skills and feel unprepared to accommodate and teach SWD in general education classrooms. For example, they lament over classroom environments, nature of students, and school-related factors that impede their practice (Sharma et al., 2012). This suggests that inclusive practices are not always guaranteed by the placement of SWD in general education settings (Sharma et al., 2017). Implicitly, the success of IE depends on teachers' perceived beliefs about their abilities and demographic variables (Bandura, 1997). In line with past studies (e.g., Dea & Negassa, 2019; Hofman & Kilimo, 2014), teachers' self-efficacy (TSE) and demographic variables are seen as crucial elements for teachers' dispositions toward inclusive practices. Teachers' age, gender, professional training, and experience have been acknowledged as important teacher variables that determine the success of IE. Experience and continued participation in professional training and retraining enable teachers to become acquainted with the knowledge, skills, and values related to inclusive practices as well as competence and confidence needed for successful IE (Dea & Negassa, 2019; You et al., 2019). Furthermore, it is thought that

teachers with a high sense of efficacy perform relatively better than those with a low sense of efficacy, despite the characteristics of their students and the conditions of the classroom.

The complexities of achieving inclusive practices in the country has led to this study which investigated the role of TSE and specific demographic variables in predicting inclusive practices whereby IE is still in its nascent stage. The focus was on predicting the in-service teachers' inclusive practices from variables found to be significant in previous studies (see Sharma et al., 2017; You et al., 2019). The study sought to examine the extent to which predictor variables predict the criterion variable not as isolated variables but rather as interactive variables that predict each other. The study was guided by two research questions, namely: What is the relationship between in-service TSE, teachers' demographic variables, and their inclusive classroom practices? What is the effect of TSE and demographics in predicting inclusive classroom practices?

Theoretical Framework

The Social Cognitive Theory (SCT) as a motivational construct was used to examine the teacher's beliefs in their abilities and confidence in teaching SWD in inclusive classrooms. It also helped to provide better explanations of how human belief systems controlling confidence and perseverance can influence one's performance in a particular environment. In his reciprocal determinism, Bandura (1997) postulates that human performance results from reciprocal and dynamic relationships between personal factors (cognition, affects, and beliefs), behaviours (teaching behaviours, i.e., inclusive practices), and the environment (inclusive classroom). This triadic reciprocity of personal factors, behaviours, and environment provides a conceptual framework for understanding the role of self-efficacy (teachers' own beliefs, which are cognitive processes and other teacher demographics) in predicting inclusive practice (teaching behaviour) in an inclusive classroom (environment).

In the educational context, teacher self-efficacy is defined by Bandura (1977) as *teachers' beliefs about their capabilities in performing teaching tasks or having the influence of students' learning in various contexts, including those with special needs.* This means that self-efficacy determines one's efforts, goals, perseverance, and decision-making process. It stimulates a teacher's thought patterns, emotions, or feelings to take actions as per their intended goals and persist despite adversities (Bandura, 1997). This denotes the extent to which teachers' performance in various settings depends on their self-efficacy. In this regard, self-efficacy becomes an important predictor of teachers' practices despite external factors such as the nature and type of student disability, school as well as classroom environments. For example, teachers with high self-efficacy tend to apply more inclusive pedagogical practices compared to those with low self-efficacy (Woodcock & Jones, 2020). More specifically, teachers' demographic characteristics such as age, gender, training and experience are considered as the prerequisite for developing teachers' beliefs in their competence in teaching and accommodating SWD.

Teachers' knowledge, skills, attitudes, and values are facilitated through professional training and experience (Dea & Negassa, 2019; Specht et al., 2016). Teachers who value learner diversity, knowledgeable and experienced teachers are likely to support all learners despite their characteristics (Pit-ten Cate et al., 2018). Moreover, with appropriate skills and knowledge acquired through training, experience and dispositions with SWD, teachers are likely to deliver effective inclusive instructional practices. More specifically, dimensions of self-efficacy such as instructional practice efficacy, student engagement efficacy, and classroom management efficacy are also considered in inclusive practices (Park et al., 2016).

Literature Review

Teacher Self-efficacy and Inclusive Practices

Previous research has found that what teachers believe about their students in inclusive settings, their confidence in executing various actions, perseverance in the face of adversity, and the knowledge and skills required to complete such tasks all predict teacher performance or practice (Sharma et al., 2012). Teaching SWD in an inclusive setting, on the other hand, necessitates more resources as well as different teaching practices and support than teaching non-disabled peers (Sharma et al., 2017). This indicates that teachers' factors, such as beliefs and attitudes (You et al., 2019), are important indicators for successful physical and pedagogical inclusion in general education settings.

Teachers' frustrations, confidence, skills, and understandings of the roles and responsibilities of educating students with varying abilities are measured by self-efficacy (Kristiana, 2018; Sharma et al., 2012). Previous studies by Sharma and Sokal (2016) and Shaukat et al. (2019) show that the effectiveness of including SWDs in general classrooms and inclusive teaching practices seems to be influenced by teacher factors. Thus, self-efficacy is the construct that motivates and shapes teachers' thoughts, behaviours, and emotions (Bandura, 1997), just as it influences the implementation of IE (Kristiana, 2018).

Teacher Demographics and Inclusive Practices

Teacher Training

Pre-service teacher programmes are required to promote teachers' skills, knowledge, and values, as well as nurture positive beliefs. Teachers need to be effective in inclusive practices (Specht et al., 2016). For example, training in special education and inclusionary practices with SWD (e.g., Monteiro et al., 2019) have varying effects on TSE and inclusive practices. Empirical evidence from research has further confirmed that teachers' level of training has a greater influence on their instructional practices (Dea & Negassa, 2019; You et al., 2019). In particular, a study by Dea and Negassa (2019) in Ethiopia found that teachers with training in special needs education are more likely to apply inclusive practices such as

individualised instruction than teachers who have not attended training in special needs education. To this extent, previous studies have indicated that teacher training should not only include courses that foster the skills, knowledge, and understanding of students' special needs and diversities but also place a strong emphasis on changing teachers' attitudes to encourage teachers' willingness to include and teach all students in regular classrooms.

Professional Development

Past research has revealed that in a variety of situations, teachers' professional development enhances the quality of their inclusive practices and students' learning (Chao et al., 2016; Dixon et al., 2014). Chao et al. (2016) discovered that in Hong Kong, in-service teachers who participate in short training programmes on inclusive and special education improved inclusive practices. Findings from Chao et al'. (2016) study are noteworthy in that they suggest that strengthening TSE requires professional development. Results from Tanzania by Miles, Westbrook, and Croft (2018) are consistent with this. They found that teachers with pedagogical barriers in inclusive settings had insufficient professional training in special needs education. To this extent, the studies acknowledge that in-service training impacts TSE and teaching effectiveness in inclusive practices. In order to encourage positive beliefs regarding inclusive practices, the quality of the courses provided during in-service training should be context-specific coupled with personal experience. Similarly, Dixon et al. (2014) found that the time teachers spend on training, especially in differentiated instruction, positively promotes their commitment and confidence to teach SWD in general classrooms.

Teacher Experience

Bandura (1997) contends that mastery and vicarious experiences are key factors for the development of efficacy. The effectiveness of IE depends on teacher experience with SWD and inclusive practices. Numerous researchers have explored the extent to which teachers benefit from experience with SWD (e.g., Kristiana, 2018; Monteiro et al., 2019). More specifically, a study by Monteiro et al. (2019) in Macao showed that teachers with less teaching experience were facing more challenges in managing a classroom with students with special needs. In addition, Sharma et al. (2017) concluded that lengthy teaching experience in implementing IE reduces teachers' levels of concerns about teaching in general education classrooms. Teachers with previous direct contact with SWD had more positive attitudes toward IE than those who had not (Sharma et al., 2015). This corroborates Hoffman and Kilimo (2014) finding that experience with SWD determines teachers' attitudes and practices. Interactions with SWD may increase teachers' willingness to include SWD in general education classrooms (Pit-ten Cate et al., 2018). It also reduces prejudices as teachers develop positive attitudes towards SWD.

Teachers' Gender and Age

Gender is another teacher demographic variable associated with inclusive practices. Sarfo et al. (2015) found that gender may act as a predictive factor in determining teachers' inclusive practices. Their findings revealed that female teachers were more inclusive and supported inclusion more positively than the male ones. In other studies, male and female teachers were shown to have different instructional practices, with female teachers being more inclusive in instructional strategies than their male counterparts, despite the fact that there were no sex differences found in efficacy in classroom management or student engagement (Sarfo et al., 2015). Age was found to be another important factor predicting teachers' inclusive practices, though was not statistically significant. This finding is closely similar to that of Tiwari et al. (2015) who found no significant correlation between teachers' age and their perceptions of inclusive practices. This means younger teachers had more positive attitudes and efficacious towards inclusive practices than their older counterparts.

Although the aforementioned teacher demographic factors have an impact, none of them can be fully understood on their own when examining inclusive practices. TSE should be examined along these demographic variables to understand their interaction and predictive effect on successful inclusive practices.

Methodology

Research Approach and Design

The current study employed a quantitative research approach which was informed by a correlational research design to examine the extent of the predictive relationship between TSE and demographic variables on the teachers' inclusive practices. The design was deemed appropriate for predicting the variance of a dependent variable (teacher inclusive practices).

Participants

The study was conducted in two administrative regions of Tanzania, namely Dodoma and Mwanza. Six districts were sampled for the study, including Chamwino, Dodoma Urban, and Kondoa in Dodoma and Nyamagana, Ilemela, and Sengerema in Mwanza. In the districts, three inclusive primary schools with SWD were sampled for the study. The two regions had a total of 746 in-service teachers. Out of 746 teachers from 31 inclusive primary schools, Dodoma had 407 teachers, while Mwanza region had 342 teachers according to statistics by PO-RALG (2017). Out of 31 schools, 18 primary schools were randomly selected, targeting 3 schools from each district. The schools were selected because they enrol SWD, while teachers were involved due to their varied experiences with SWD. Thus, there were 254 in-service teachers working in 18 primary schools: Dodoma (n = 128) and Mwanza (n = 126).

Data Collection Instruments

The first part of the questionnaire comprised teacher demographic information. The Teachers' Sense of Efficacy Scale (TSES) as proposed by Tschannen-Moran and Hoy (2001) was employed to measure TSE. Teachers responded through a 9-point Likert scale ranging from "nothing" (1) to "a great deal" (9), which represents the degree of the

continuum of the TSES. However, to fit the study context, feedback from the pilot study, and accessibility and use of both data coding and analysis, the 9-point scale was adapted to a 5-point scale. Preston and Colman (2000) contend that the points of the scale can be reduced without threatening the validity, reliability, and factor structure. The TSES was factored into three sub-scale variables through principal components analysis and varimax rotation, including instructional practices (IP), student engagement (SE), and classroom management (CM). The reliability of TSES sub-scales in this study was as follows: instructional practice efficacy (α=.79); student engagement efficacy (α=.77), and classroom management efficacy (α=.77), while the overall TSES, was α=.94. This substantiates reliability of 0.94 established by Tschannen-Moran and Hoy (2001).

The Teacher Efficacy for Inclusive Classroom Practice Scale (TEICPS) was used to measure teachers' efficacy to teach in inclusive classrooms with pupils with disabilities. The 23-items of the TEIPCS were modified from the original TEIP scale (Sharma et al., 2012). The TEIP was further validated, modified, and used as applied by Park et al. (2016) in Bangladesh. The modified TEICPS did not include the "*efficacy in collaboration"* items, replacing it with items related to "*efficacy in student engagement* (see Sarfo et al., 2015) because the study did not investigate co-teaching in inclusive classrooms. Also, the omission and replacement of items enable the TEIPCS to concur with the SCT, TSES. In addition, due to the context in which IE is implemented, teaching assistants are rarely used in Tanzania's inclusive classrooms. Teachers responded using a 5-point Likert-type scale ranging from "*Very Often"* (1) to "*Almost Never"* (5). The reduction of the number of points from 6 in the original TEIP to a 5-point scale was done to have a neutral point. Previous validation studies showed good psychometric properties of TEICPS in measuring teacher efficacy in inclusive practices (e.g., Sharma et al., 2012; Park et al., 2016). The Cronbach's Alpha was 0.86.

Data Analysis

Demographic characteristics and total scores were subjected to descriptive statistics analysis. Then, Pearson correlation and partial correlation tests were performed to examine the existing interrelationships between TSE, teacher demographics, and inclusive practices. Hierarchical regression analysis was used to examine the extent to which inclusive practice (criterion variable) is explained by predictor variables (TSE and teacher demographics). Descriptive and inferential statistical analysis were performed using IBM SPSS (Version 21) software.

Results and Discussion

Demographic Characteristics of Respondents

Teacher demographic information such as gender, age, level of education, professional training, teaching experience, and experience with SWD were gathered to determine their role in inclusive practices. Table 1 summarizes the respondents' demographic characteristics.

Table 1: In-Service Teacher Demographic Characteristics

Variable	Category	f	%
Gender	Male	78	30.7
	Female	176	69.3
Age	25-30	44	17.3
	31-35	55	21.7
	36-40	59	23.2
	41-45	40	15.7
	46-50	31	12.2
	51-55	15	5.9
	56-60	10	3.9
Level of Education	Master	5	2
	Bachelor	29	11.4
	Diploma	48	18.9
	Certificate	172	67.7
Professional Training	Attended	103	40.6
	Not attended	151	59.4
	Missing	0	0.0
Teaching Experience	0-5 years	37	14.6
	6-10 years	62	24.4
	11-15 years	74	29.1
	16-20 years	32	12.6
	Over 20 years	49	19.3
Teaching Experience with SWD	0-5 years	151	59.4
	6-10 years	68	26.8
	11-15 years	11	4.3
	16-20 years	6	2.4
	Over 20 years	3	1.2
	None	15	5.9

As indicated in Table 1, about 176 (69.3%) were females, and78 (30.7%) were males, with ages ranging from 25 to 58 years, with a mean age of 38.92 years. More than two-third of the respondents (192 teachers, 67.7%) had a certificate in teacher education, with 18.9% holding a diploma (n = 18). A small number of them (11.4%) had a bachelor's degree (n = 29), while 2% had a master's degree ($n = 5$). When asked if they had attended professional training in special needs education, 151 teachers (59.4%) indicated they had not, compared to 103 teachers (40.6%) who had attended professional training in special needs education. On the other hand, the majority of teachers (66.1%) had between 6 and

20 years of teaching experience. Similarly, the majority of teachers (94.1%; n = 239) had a varied experience in teaching SWD, ranging from one to twenty years, with only 5.9 percent (n = 15) indicating they had never had such experience.

Relationship between Teacher Self-Efficacy, Demographic Variables and their Inclusive Practices

The study examined the relationship between in-service TSE, teachers' demographic variables, and their inclusive practices. Descriptive statistics indicated that teachers had a high sense of efficacy, with the *mean score of* 4.04 and 3.95 in overall TSE and TEICPS, respectively. Additionally, results indicated that teachers had high positive self-efficacy in IP (M = 4.09), SE (M = 4.02), and CM (M = 4.00). TSE has a significant contribution to teachers' inclusive practices because it predicts effectiveness of the teacher in the inclusive classrooms. Table 2 presents the summary results of the relationship between variables.

Table 2: *Pearson (r) Correlations between the TSES (Sub-scales), Teacher Demographic Characteristics, and Teacher Inclusive Practices*

		1	2	3	4	5	6	7	8	9	10	11
1	TEICPS	–										
2	TSES	.457***	–									
3	TSE (IP)	.435***	.921***	–								
4	TSE(SE)	.393***	.930***	.790***	–							
5	TSE(CM)	.438***	.915**	.757***	.780***	–						
6	Gender	-.052	.059	.066	.061	.036	–					
7	Age	.071	.152*	.106*	.138*	.176*	.096	–				
8	Education	-.110*	.012	.036	.034	-.038	.087	.037	–			
9	Professional Training	-.284***	-.240***	-.200**	-.225***	-.242***	.063	-.074	.188**	–		
10	Teaching experience	.123*	.148*	.098	.113*	.201**	.138*	.840***	.032	-.015	–	
11	Experience with SWD	-.019	-.077	-.046	-.084	-.085	.110*	.201**	-.051	.032	.188**	–

Note**:** Sig. (2-tailed) ***p < 0.001, **p < 0.01, *p < 0.05.

Table 2 indicated that there was a statistically significant relationship between the TSE and inclusive practice (p<0.01). Teachers' self-efficacy in the IP (r =.435), SE (r =.398), and CM (r =.438) sub-scales was moderately correlated with their inclusive practices. This shows that with such high efficacy beliefs, their inclusive practices would follow similar trends. This corroborates the findings of previous researchers (Park et al., 2016; Sharma

et al., 2012), who found that TSE is an important predictor of teachers' effectiveness in inclusive practices. However, mere high scores on efficacy scales for inclusive practices do not necessarily indicate strong teacher beliefs and quality in inclusive practices. There are contextual and teacher demographic variables that can predict TSE and inclusive practices (Bandura, 1977; Kristiana, 2018).

Table 2 indicates that teachers' gender, age, teaching experience with SWD, and efficacy for inclusive practices had low but no significant relationships ($p > 0.05$). Despite the fact that these teachers' factors are linked to inclusive practices, no statistical significance was found. For example, the finding suggests that being a male or female teacher does not necessarily predict a teacher's efficacy in inclusive practices. Similarly, age did not indicate statistical differences between older and younger teachers on inclusive practices. However, this does not mean that age has no effect on a teacher's inclusive practices. This echoed the finding by Tiwari et al. (2015), who found no age difference in teachers' inclusive practices. Further, there were small but statistically significant associations between teachers' educational level, professional training, and years of teaching experience and their inclusive practices ($p<0.05$). This means that the factors had a statistically significant effect on the teachers' inclusive practices. These findings are consistent with those of Dea and Negassa 2019; Kristiana (2018), who found a statistically significant effect of training and experience with SWD on teacher inclusive practices. The reason provided for this effect was that teachers' professional training exposes them to practical skills, knowledge, and values related to teaching and accommodating SWD.

It was assumed that the relationship between TSE and inclusive practices might be mediated by the effect of demographic variables. Partial correlation (*pr*) was used to explore the relationship between TSE and teacher inclusive practices, while controlling teacher demographic variables to examine the impact of the relationship between the main variables. Table 3 presents the summary results.

Table 2: *Partial Correlations Matrix between TSE and Teacher Inclusive Classroom Practices*

Correlations				
Control Variables			TSES	TEICPS
-none-[a]	TSES	R	1.000	.457***
		Sig.		.000
	TEICPS	R	.457***	1.000
		Sig.	.000	
	Gender	R	.061	-.052
		Sig.	.336	.411
	Age	R	.152*	.071
		Sig.	.015	.260
	Education	R	.012	-.110
		Sig.	.847	.079
	Professional Training	R	-.249***	-.279***
		Sig.	.000	.000
	Teaching experience with SWD	R	-.077	-.019
		Sig.	.219	.767
Gender & Age & Education & Professional Training & Teaching experience with SWD	TSES	R	1.000	.422***
		Sig.		.000
	TEICPS	R	.422***	1.000
		Sig.	.000	

Note**:** Sig. (2-tailed) ***, *p < 0.05.

As shown in Table 3, there was a moderate, positive, partial correlation between TSE and inclusive practices [r =.422, n= 254, *p*.001], with higher levels of teacher self-efficacy associated with higher levels of efficacy in inclusive practices. An examination of the zero-order correlation (r=.457) suggested that controlling teacher demographic variables had very little effect on the strength of the relationship between TSE and inclusive practices (i.e., a small decrease in the strength of the correlation from. 457 to .422). Demographic variables might have a moderating effect on the relationship between TSE and inclusive practices. However, the findings concluded that the existing relationship between TSE and inclusive practices is not merely due to the impact of teacher demographics responding.

The results showed that in-service teachers who participated in this study had a moderately positive, statistically significant correlation. This suggests that TSE, as a personal factor,

has an effect on determining teachers' inclusive practices. This finding can be perceived in several ways. First, it may imply that the higher the level of self-efficacy, the more frequent is in-service teachers' use of inclusive practices. This accounts for the confidence among in-service teachers about their abilities to engage students in learning, use appropriate instructional strategies, and organise and manage classrooms. Secondly, teachers with high sense of efficacy are believed to be comfortable and confident in inclusive classrooms because they do not doubt their abilities, even when there is a diversity of learners and challenges in the teaching environment. Another more interesting explanation is that teachers with high self-efficacy might be comfortable, accommodative, and inclusive enough because their personal beliefs match their teaching abilities, even when their classroom has SWD. These findings are consistent with previous studies on TSE and teacher inclusive practices (e.g., Chao et al., 206; Sharma & Sokal, 2016). Findings from the studies have suggested that TSE is necessary for success in inclusive practices.

Thus, a vicious cycle of correlations is seen in the extent to which teachers' self-conviction about their abilities to include SWD and the use of inclusive practices predict each other (Bandura, 1977). According to the findings, TSE is a personal factor in implementing IE if other teachers' variables are held constant. This suggests that teachers' competence is a significant predictor of teachers' inclusive practices. Although other demographics seem to be significant in determining inclusive practices such as teachers' experience and training (Dea & Negassa, 2019), TSE remains an important factor in predicting inclusive practices. It is promising to find that TSE and inclusive practices are related and, in fact, have a positive effect on teachers' effectiveness in inclusive settings. Such relationships may trigger teachers' effectiveness in applying appropriate instructional strategies, students' engagement in learning, and maintain and organise a classroom to accommodate students despite their abilities.

Predictive Effect of Teachers' Self-Efficacy and Demographic Variables on Teachers' Inclusive Classroom Practices

A hierarchical multiple regression analysis was performed to examine which teacher variable accounted for unique variance in teachers' inclusive practices. The predictor variables were the TSE and teacher demographic variables (gender, age, education level, professional training, teaching experience, and experience with SWD). In the model, the controlled variables were entered first, and the variable whose predicting effect had to be evaluated was entered afterwards. Table 4 summarizes the extent to which teachers' inclusive practices are explained by the predictor variables.

Table 4: *Regression Models Predicting Teacher Efficacy for Inclusive Classroom Practices*

		β	*t*-value	Sig.
Model 1	Gender	-0.075	-1.351	0.178
	Age	-0.187	-1.837	0.067
	Level of education	-0.075	-1.338	0.182

	Professional Training	0.167	2.872	0.004
	Years of teaching experience	0.225	2.211	0.028
	Years of teaching experience with SWD	0.016	0.29	0.772
	Model Statistics	*F*6, 247=4.951, *p*< 0.001.		
	R^2	0.107		
Model 2	TSE (IS)	0.240	2.415	0.016
	TSE(SE)	0.028	0.277	0.782
	TSE(CM)	0.176	1.786	0.075
	TSE	0.417	7.221	0.000
	Model Statistics	*F*7, 246=12.571, *p*< 0.001.		
	R^2	0.263		

In the first step as indicated in Table 4, the block of teacher demographics (gender, age, education, professional training, years of teaching experience, and experience with SWD) were entered and the strength of their prediction examined. The contribution of demographics to inclusive practices was examined. Results have shown that teaching experience and professional training were significant contributors, while gender, age, level of education, and experience in teaching SWD were not significant contributors. Results have shown that when teacher demographic variables were entered into the model as a block of variables, there was an increase in the variance in inclusive practices [R^2 = 0.107, F (6,247) = 4.951, p = 0.001]. This indicates that teachers' inclusive practices were explained by 10.7 percent of the total variance. Only teachers' professional training (β=.0.167, p<0.05) and teaching experience (β=0.211, p<0.05) had a slight significant effect on teachers' inclusive practice. For teacher training, the effect size was positive, implying that the teachers with professional training had slightly positive perceptions of inclusive practices. This implies that teachers who attended training in special education had higher levels of inclusive practices than those who had never attended or had no experience in teaching SWD. In addition, the results showed that teachers' gender, age, and level of education attained had no statistically significant predictive effects on the teachers' inclusive practices.

In the second step, TSE scores were entered into the model to determine their strength in predicting teacher inclusive practices (dependent variable). It was learned that teacher inclusive practices were significantly predicted by the TSE (β = 0.417; p<0.01). Results indicated that when TSE was entered into the equation, the effect size of the model increased. This means that the model explains 26.3 percent of the variance and accurately predicts inclusive practices [R^2 = 0.263, (F7, 246) =12.571, p<0.01]. This means that the first model explained less variance

in inclusive practice changes (10.7 %) compared to the second model, which improved the variance in inclusive practice (26.3%). Whereas self-efficacy in IP contributed significantly to the model (β= 0.240, p=0.016; $p < 0.05$), self-efficacy in SE (β= 0.028, p=0.782, >0.05), and self-efficacy in CM (β= 0.176, p=0.075, > 0.05), did not. The regression analysis shows that when three dimensions of teacher self-efficacy are regressed into the model, only instructional practices significantly predict teachers' inclusive practices. This could be expected because teachers' instructional practices might affect other dimensions of classroom practices because teachers engage and organise the classrooms while teaching. Other dimensions of the TSE such as SE and CM were not statistically significant. According to the findings, when these three TSE dimensions were entered together, they significantly contributed to the model. It further indicates the interrelationships between the three dimensions of TSE (IS, SE, CM) in predicting teacher inclusive practice.
Results suggest that TSE and teacher demographic variables played a significant role in the model. The interaction independent variables (TSE*Teacher demographics) are statistically significant (p< 0.001), and the R^2 value increased with the interaction effect between the variables rather than without it (0.107 versus 0.263). Consequently, it can be concluded from the findings that there is a meaningful interaction between TSE and teacher demographics because they had predictive power in the equation. Since there is an interaction effect between variables, both of them predict the outcome variable (the inclusive practices). This means it is sensible to interpret their main effects not in isolation but rather interactively, as they define the quality of the teacher in an inclusive setting. This finding confirmed the role of teacher personal factors in the well-known Bandura's triadic reciprocal relationship between environment and behaviour (Bandura, 1977).

The contribution of teacher demographics such as teaching experience and training in the model corroborates what was postulated by Bandura as *mastery experiences and vicarious experiences* in the development of self-efficacy (Bandura, 1997). This finding is consistent with previous studies by Dea and Negassa (2019); Sharma and Sokal (2016), and You et al. (2019), who found that training in special needs education and experience were significantly related to teacher's inclusive practices. The current study revealed that inclusive practice scores were not significantly related to age, gender, and level of education**.** This implies that the variables were not significant factors in determining TSE towards inclusive practices. It is worth noting that teachers, regardless of age, gender, and education show similar levels of self-efficacy towards inclusive practices. In addition, the increase in differences shown in age, gender, and level of education, did not relate to teachers' inclusive practices.

These findings have contrasted significantly with earlier research findings that established the significant contribution of teacher demographics to teacher performance in various settings. For example, research indicated that both pre-service and in-service teacher training is effective in preparing and equipping teachers with sufficient knowledge, and skills for special and general teachers (Shaukat et al., 2019; Specht et al., 2016). This inconsistent finding can be attributed to several factors such as sample size, research

design, or rather homogeneity of teachers' level of education, in which the majority of in-service teachers had certificates of teacher education. A question to be raised here is, Why *were the results on teachers' levels of education not reflecting their levels of inclusive practices?* The findings of this study established that teachers, regardless of their attained levels of education, felt uncomfortable or less efficacious in implementing inclusive practices. In this regard, results suggest the necessity of improving professional training for teachers to promote their inclusive practices. This indicates that increasing knowledge and professional training for both general and special education teachers will improve efficacy beliefs, attitudes, and practices (Pit-ten Cat et al., 2018).

Another factor could be the assertion by Bandura (2006:307) that the efficacy belief system is not a global quality but a differentiated set of beliefs tied to particular areas of functioning. When taken together, however, TSE and demographic characteristics significantly predict their inclusive practices. This study has shown that TSE and specific demographic variables are key factors to consider when making decisions to include SWD in general classrooms for effective inclusive practices.

Conclusion and Recommendations

Results have shown that TSE is an important construct that can negatively or positively alter the correlation between teacher demographics and inclusive practices. The study's findings show relationships between overall TSE and teacher inclusive classrooms practices. The three dimensions of the TSE form the basis of the teacher effectiveness in the inclusive setting. Teachers' high scores in inclusive practices, were also found to have a significant improvement as a result of high TSE. In addition, the results of this study underscore the importance of teachers' factors such as beliefs, knowledge, and skills needed as the catalysts for effective inclusive practices. This study assumed that teachers with high self-efficacy (personal beliefs) will incorporate the inclusive practices (behaviour) in general classrooms with SWD (environment). The finding corroborates Bandura's reciprocal and dynamic relationships between personal factors, behaviours and the environment (Bandura, 1977). The essential challenge is, "How can these insights be transformed into policy and practice that works?'' This is a gap between the theoretical foundation of IE and actual classroom practices, which is often evident among teachers' struggling to implement successful inclusive practice, regardless of demographic or school variables.

Any education reform or innovation that does not align with teachers' personal and teaching beliefs, as well as other contextual variables, is bound to fall short of its intended goals and principles. As previously stated in this study, IE is a policy issue and educational reform that aims to teach SWD alongside their peers in general classrooms. Tanzania is not exceptional in adopting this global education reform. For better implementation of IE, all available indicators and enabling conditions must be considered to ensure that IE

is a reality rather than a rhetorical policy agenda. As a practice, IE should strive to dispel myths about the nature of teaching, knowledge, and teachers, as well as student abilities.

With reference to the study results, the implementation of IE rests on the actions or practices of teachers [implementers] who hold various degrees of belief systems. The findings of this study are anticipated to inform policies on motivating teachers and providing an effective environment for inclusive practices for both teachers and students. Interventions should be used to improve teachers' proficiency in the form of professional development that is specifically geared toward motivating teachers to accept and willingly teach in inclusive classes. To achieve this, teacher training and retraining should be emphasised. Ideally, giving teachers the opportunity to attend in-service training would increase their competence, knowledge, and skills, specifically on inclusive classroom management, students' engagement, and instructional practices. This should also be applied to pre-service education training to bring significant changes in classroom and school environments. In achieving this, teachers will develop the necessary competence, attitudes, knowledge, and skills and, therefore, will feel more efficacious with SWD enrolled in inclusive classrooms.

Although this study confirmed that TSE and teacher demographics are crucial components in the understanding of inclusive practices, there are some limitations. First, the findings of this study can only be generalised to teachers with similar demographics and settings because the data were collected from teachers working in 18 inclusive primary schools. Further studies with a larger sample should be considered to expand the scope of the study and shed light on the contextual factors predicting teachers' inclusive practices. Secondly, the current study utilised a self-reported questionnaire, which could have led to some kind of response bias due to the teachers' social desirability. So, the accuracy of the information drawn from the use of the questionnaires might be limited because it depended on teachers' honesty. It is recommended a similar study be extended to other inclusive schools. Lastly, since the current study employed quantitative approach in data analysis, it recommends for a related study that employs a mixed method approach, to obtain more solid data related to teacher inclusive practices and the extent to which they are predicted by TSE, teacher demographics, and classroom variables. The data will help to uncover various contextual factors affecting the teacher's inclusive practice which were not accounted for in the present study.

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