

The Relationship Between Self-Reported Efficacy and Actual Use of Inclusive Practices Among In-service Teachers in Inclusive Primary Schools

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Abstract: *The aim of this research was to determine significant the relationships between teachers' self-reported scores on teacher self-efficacy, efficacy in inclusive practices and actual inclusive classroom practices in Tanzanian primary schools with student with disabilities. Seventy-two (72) teachers filled in the Teachers' Sense of Efficacy Scale (TSES) and the Teacher Efficacy in Inclusive Classroom Practices (TEICPS). The Inclusive Practices Classroom Observation Scale (IPCOS) was also used to observe teachers' actual inclusive classroom practices. Findings have revealed a significant positive relationship between teacher self-efficacy and efficacy in inclusive classroom practices. Further, teacher self-reported response scores on the TSES and efficacy in inclusive practice did not reflect their actual inclusive practice. It is recommended that, for better implementation of inclusive practices in schools, efforts be exerted towards the development of teacher personal factors and the modification of the classroom environment.*

Key Words: Classroom observation; inclusive classroom practice; inclusive education; self-efficacy; student with disabilities

INTRODUCTION

Globally, students with disabilities (SWD) are included and learn in regular classrooms alongside their non-disabled peers. This is practiced in both developed and developing countries (Ainscow, 2016; Specht et al., 2016), including Tanzania. The ratification of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) and its protocol in 2006 spearheaded the government's commitment to implement inclusive education in Tanzania. For example, in 2010, the Persons with Disabilities Act No. 9, was enacted followed by the first and second National Inclusive Education Strategy, 2009–2017, and 2018–2021, respectively (MOEST, 2017).

Moreover, the 2014 Education and Training Policy also seeks to promote equity and access to quality inclusive education (Ministry of Education and Vocational Training, 2014). This implies that the inclusion of children with disabilities in inclusive classrooms is adopted in most countries as the key educational innovation and philosophy for educating SWD (Ainscow et al., 2013). As a result, there has been a significant increase in the enrollment of SWD in Tanzania's primary schools. For example, the increase in primary schools with SWD led to an increase in enrolment from 31,488 pupils in 2013, to 42783 and 49625 pupils in 2017 and 2018, respectively (PO-RALG, 2018). This has led to a decrease in the number of segregated schools for SWD in past decades. These are encouraging signs of progress toward achieving international educational goals, particularly in terms of accessibility. However, the policy agenda does not necessarily guarantee good practice because the pace and conditions for fully inclusive practices for SWD in general classrooms have not yet been effectively achieved. Teacher-related variables are one of the major causes of such a mismatch.

Past research suggests that teacher variables are key elements for successful inclusion of students with disabilities in general education settings (Sharma et al., 2017; Sokal, & Sharma, 2014). It should be noted that teachers' roles and responsibilities increase due to learners' diversity. Importantly, teaching SWD in inclusive settings requires more resources and different teaching practices, as well as more support than those for their non-disabled peers (Fuchs & Illinois, 2010). Studies have further shown that despite the fact that teachers might feel that they are well prepared to teach SWDs in inclusive settings, they still believe that SWDs should be taught in special classrooms rather than regular ones (Specht et al., 2016; Silverman, 2010).

It is also assumed that general education teachers who have received general education training are less likely to possess the necessary skills and knowledge in special education or inclusive education. In this regard, teacher variables such as perceived efficacy for inclusive practices should be examined as a prerequisite for in-service teachers' success in actual inclusive practices. This indicates that teachers' personal factors, such as their beliefs and attitudes (Jordan et al., 2010; You et al., 2019), are important indicators for successful physical and pedagogical inclusion in general education settings. Teachers' perceived efficacies enhance their resilience, persistence, and general teaching practices in inclusive settings.

Within the context of inclusive education, what teachers believe about their students in inclusive settings, their self-conviction about their capabilities to teach all students, their persistence despite difficulties, as well as the knowledge and skills necessary to accomplish such tasks, predict effective inclusive classroom practices (Jordan et al., 2010; Ling, 2015; Sharma et al., 2012). Thus, this study hypothesized that teachers with high self-efficacy and teaching efficacy scores are highly effective in actual inclusive practice in the classroom with SWD. So long as the implementation of inclusive education is not universal, the central question remains: "Does the self-reported teacher efficacy relate to what teachers do in the classrooms?"

Further, past research on the relationship between teacher self-efficacy and inclusive education in Tanzania has not addressed the extent to which self-reported scores on teacher self-efficacy and teaching efficacy relate to actual inclusive classroom practices. This study sought to debunk the common assumption that what teachers report as their efficacy beliefs necessarily relates to what they do in the classroom context. It was carried out by measuring self-reported scores and observing the classroom.

LITERATURE REVIEW

TEACHER SELF-EFFICACY

Bandura (1977) popularized the term "self-efficacy" in his paper "Self-Efficacy: Toward a Unifying Theory of Behavioural Change", where he presented an integrative theory of human behavioral changes. Subsequently, Bandura (1997:3) defined self-efficacy as beliefs in one's ability to organize and execute the courses of action required to achieve given goals. At the same time, Social Cognitive Theory provides a conceptual basis for analyzing self-efficacy (teachers' own beliefs as a cognitive process), inclusive practice (behavior), as well as the inclusive classroom environment (environment), which are fundamental to this study. The theory also focuses on the centrality of social cognitive theory in motivating and predicting behavior. It emphasizes the relative power of sources of self-efficacy and the temporal mutual interplay among the following: (a) personal factors; (b) behavioral performance; and (c) environmental context (Bandura, 1986). This triadic reciprocity of functioning guided the researcher to understand the sensitivity of teachers' effectiveness in inclusive practices to the influence of variations in context and personal beliefs.

Self-efficacy helps teachers plan and analyze tasks in order to modify or alter the classroom environment, as well as teaching and learning strategies (Bandura, 1982). Social Cognitive Theory also explains the relationship between teacher self-efficacy and teacher classroom practices in an inclusive classroom with SWD. In other words, the SCT acknowledges the interplay between environmental events (e.g., an inclusive classroom with SWD), teachers' cognitive processes (e.g., self-efficacy beliefs, attitudes), and behavior (e.g., inclusive practices). The theory guided the study on how teachers, as agents of change in the classroom, intentionally affect students' learning and functioning (Bandura, 1997). From a theoretical perspective, teachers are defined as agents of change who take action in implementing effective inclusive education practices.

Self-efficacy in educational practices refers to teachers' self-evaluation or self-conviction of their abilities to execute a specific action or task in a specific context to produce expected outcomes (Bandura, 1977, p. 193). It is a personal belief that fosters the success of teaching behavior in various settings. It is reasoned that self-efficacy influences teachers' choices of actions to be taken, how much effort is exerted in pursuing the tasks, how long they will persevere, the extent of their resilience, as well as their coping, including difficulties or adversities' (Bandura, 1997, p.3). In addition, teacher self-efficacy is defined as "teachers' belief in their own ability to influence students' performance in inclusive settings using various specialized inclusive teaching strategies, student learning and engagement, as well as inclusive classroom management". For years, teachers' self-efficacy has been conceptualized along the three basic dimensions of instructional practice, student engagement and classroom management (Poulou et al., 2019). Additionally, these three domains of teacher self-efficacy surface in the majority of previous studies on classroom practices seeking to unravel the extent to which teachers' self-efficacy is liable to create positive learning environments in diverse classrooms (e.g. Chao et al., 2017; Poulou et al., 2019).

In the context of inclusive education, the following question guided the researchers: To what extent do teachers believe that they are capable of including and teaching pupils with disabilities in inclusive settings? Answers to this question put teachers' self-efficacy at the center of determining the degree of their commitment to inclusive practices. Teachers' self-efficacy is also measured by the level of their frustrations, confidence, skills and understandings of the roles and responsibilities of teaching students with diverse abilities (Kiel et al., 2020). Teachers' self-efficacy beliefs are also linked to predictions about their teaching behaviors and special judgments

about their educational role in improving their practices in inclusive classroom settings (Bandura, 1997; Malinen, Savolainen, & Xu, 2013; Sharma & Sokal, 2016).

Research results have indicated a significant influence of teacher self-efficacy on student success and teacher performance (Kristiana, 2018; Sokal & Sharma, 2013). In this regard, teacher self-efficacy becomes an important predictor of teachers' inclusive practices despite external factors such as the nature, type, and severity of student disabilities, as well as school environments. Findings show that teachers with high self-efficacy tend to apply more inclusive pedagogical practices compared to those with low self-efficacy (Savolainen et al., 2012; Tschannen-Moran & Hoy, 2001). This implies that self-efficacy as an internal psychological process, in conjunction with demographic characteristics such as knowledge and experience, as well as school factors, are the prerequisites for teachers' success in implementing inclusive practices (Chao et al., 2017; Wang et al., 2017). Previous studies (Sharma & Sokal, 2016; Sharma et al., 2017) indicate that the effectiveness of including SWD in general classrooms and inclusive teaching practices are seen to be influenced by teacher factors.

Moreover, despite the nature of students and working conditions, teachers with a high sense of efficacy are believed to thrive and perform relatively better compared to teachers with low self-efficacy. Literature has confirmed that successful inclusive education becomes more effective when teachers' personal variables (e.g., self-efficacy beliefs) and environmental factors (e.g., classroom environment and practices) are well understood and used together rather than in isolation. This shows that the influence of teachers' self-efficacy influences the implementation of inclusive education, particularly when SWD are taught alongside their non-disabled peers (Malinen et al., 2012). Further, studies have shown that teacher demographics, such as training, teaching experience with SWD (De Boer et al., 2011; Malinen et al., 2013) as well as professional training in special needs education (Leyser et al., 2011; Loreman et al., 2013) are associated with teachers' sense of efficacy and successful inclusive classroom practices.

INCLUSIVE TEACHING EFFICACY

Inclusive teaching efficacy is one of the aspects of teacher self-efficacy in inclusive settings. Apart from personal sense of efficacy, there is a focus on the extent to which teachers believe in their capabilities, efforts, goals, and perseverance in difficult situations (Tschannen-Moran et al., 1998). Teaching efficacy is defined by Ashton and Webb (1986) as "teachers' expectations that teaching can influence student learning" (p.4). Moreover, it is defined as a teacher's belief in their competence to impact student learning or performance (Bandura, 1977). In this context, it is used to represent general teaching efficacy (i.e., efficacy in inclusive practices). It usually focuses on teachers' abilities to assist and reach out to students with various educational needs despite the environmental challenges that might influence the learning process. Studies have shown a positive relationship between increased teachers' effectiveness, motivation, and novelty and teaching efficacy in various settings (Holzberger et al., 2013; Savolainen et al., 2012).

Numerous studies have established that teaching efficacy is not a global construct but rather a context-specific (Tschannen-Moran & Hoy, 2001; Jeon, 2019). In particular, Tschannen-Moran and Hoy (2001) suggested the necessity of considering specific contexts and teaching tasks in studying teacher efficacy. As far as this study is concerned, the use of inclusive teaching efficacy is considered in conjunction with the multidimensional nature of the teacher efficacy construct. That is, inclusive teaching efficacy must be conceptualized across specific domains such as student abilities or levels, teaching and learning contexts, and social-cultural contexts. In a study conducted in Asian countries by Sharma and George (2016), it was revealed that teachers with high inclusive teaching efficacy are effective in creating classroom environments with successful learning styles

that accommodate students with different abilities. Shoulders and Krei (2015) and Bedir (2015) conducted in the USA and Turkey, respectively, showed that teachers who are confident in their teaching practices are often willing and open to teach in various classroom contexts, are able to fulfill their classroom tasks, and are innovative in implementing their instructional practices.

Moreover, Coleman (2017) showed that components of teacher efficacy and the implementation of pedagogical practices are significantly related. Notably, Malinen et al. (2013) conducted a comparative study in China, Finland and South-Africa to examine teacher efficacy for inclusive teaching practices. They found that experience in teaching children with special learning needs is the strongest predictor of teacher self-efficacy, as teachers with a high sense of efficacy have high levels of inclusive teaching practices. Ling (2015) indicates that teacher self-efficacy and teaching practices for children with autism spectrum disorders correlate with both work experiences and developmentally appropriate teaching practices. Simultaneously, Woodcock and Jones, (2020), Chao, Forlin and Ho (2016) demonstrated that teachers' self-efficacy significantly influenced their success in inclusive classrooms and education for all. It is believed that teachers with high efficacy beliefs are open to new ideas and can willingly experiment with flexible educational innovations and strategies for helping students with diverse needs (Schwab, 2019).

INCLUSIVE CLASSROOM PRACTICES

Plethora of studies have suggested the ideal forms, strategies, and methods of creating inclusive classrooms and teacher practices (e.g., Bulat et al., 2017; Lampert et al., 2012). For successful inclusive classroom practices, teachers are obliged to build positive personal and teaching beliefs about their abilities to create ideal inclusive classrooms and teach students with diverse abilities effectively. This is why inclusive classroom practices must be conceptualized along with teachers' personal efficacies, which dictate teachers' resilience, commitment, and confidence in various contexts, despite difficulties they might be experiencing.

Teachers have struggled with personal issues (e.g., beliefs) about their adequacy to teach pupils with disabilities in inclusive settings all along. They work hard to realign their beliefs, practices, and classroom learning environment to create positive learning outcomes for SWD. Several studies have shown that the main focus of inclusive practices should be on changing the classroom environment through pedagogical improvement and adaptation (teaching and learning) as part of successful implementation of inclusive education (Decristan et al., 2017). Similarly, several authors have argued that promotion of education for pupils with disabilities is attained by accommodating and adapting teaching, learning, and assessment strategies (Adewumi et al., 2017; Francisco et al., 2020; Majoko, 2018). Previous research has found that when teachers use inclusive teaching practices that recognize the diversity of learners, such as differentiated instruction and assessment, students learn more effectively. In other words, the success of inclusive classroom practices should be grounded on establishing an emotional climate, student engagement, and proper classroom management, as well as improving student academic performance (Korpershoek et al., 2016).

Thus, it stands to reason that teachers, as prime movers of education innovation and reform, must assume full responsibility for organizing the curriculum and teaching processes based on an appropriate and inclusive learning environment that nurtures pupils' differences and abilities (Efthymiou & Kington, 2017). This must be the focus of creating inclusive classroom practices, assisted by teachers with high self-efficacy and teaching efficacy acting as vital psychological processes for their resilience and judgment. The situation assists in accomplishing the demanding tasks of teaching in inclusive classroom settings. It was consequently important to investigate

inclusive classroom practices through the prism of how teachers report their efficacy in accomplishing the aforementioned obligations in classrooms with pupils with disabilities.

THE PRESENT STUDY

Despite the fact that the majority of the reviewed research shows that teacher self-efficacy predicts pre-service teachers' readiness and intentions in including learners with disabilities in regular classrooms (Büssing et al., 2019; Loreman et al., 2013; Sharma et al., 2017), many in-service teachers feel inadequate and skeptical about including and teaching SWDs in inclusive settings (Chao et al., 2017; Krohn-nydal, 2008; Wapling, 2016). Wapling (2016) for instance, found that teachers were concerned about their preparedness to support children with disabilities in inclusive settings. Feeling of inadequacy to teach in classrooms including learners with diverse needs increased teachers' skepticism in implementing inclusive classroom practices due to available resources as well as teachers' knowledge and skills (Hettiaarachi et al., 2018). The studies acknowledged that teacher variables are key for both pre- and in-service success in inclusive classroom practices. However, past studies on self-efficacy beliefs in the area of inclusive education, particularly in the classroom with students with disabilities (SWD), mainly focused on teacher self-reported perceptions of pre-service teachers.

In the light of the contextual differences and in-service teachers' experience in implementing inclusive practices, there is still evidence of the interrelationships between self-reported teachers' self-efficacy, teaching efficacy and teachers' actual use of inclusive practices in the classroom with SWD in Tanzania. This research sought to fill the gap between self-reported teachers' self-efficacy and its effect on actual classroom practices.

This study sought to determine the relationship between teachers' self-reported scores on teacher self-efficacy, efficacy in inclusive practices and their actual inclusive classroom practices in general primary schools with SWD in Tanzania. The study was guided by the following specific research question: Is there a significant interrelationship between self-reported teachers' self-efficacy, teaching efficacy, and teachers' actual use of inclusive practices?

METHODS

RESEARCH DESIGN

A correlational research design alongside a classroom observational study design (Sharma & Sokal, 2016) was employed in this study. This design was deemed appropriate to determine the extent of the hypothesized interrelationships between self-reported teachers' self-efficacy and inclusive practices, and finding out if changes in self-reported teachers' self-efficacy scores relate to changes in actual inclusive classroom practices. In this regard, data were systematically collected to examine the relationships between teacher variables (self-efficacy and teaching efficacy) and the observed classroom practices (Creswell, 2014).

POPULATION AND SAMPLE OF PARTICIPANTS

The target population for the present study included teachers employed in inclusive government primary schools in Dodoma and Mwanza regions. According to government statistics, the two regions had 20,991 qualified teachers in government and non-government primary schools (PO-RALG, 2017). Dodoma region had 8,040 teachers, whereas Mwanza had 12,951 teachers. Due to the primary focus of this study, only teachers in inclusive primary schools were targeted, whereas 749 teachers in 31 inclusive primary schools in the two regions were considered the target

population. In these 31 schools, statistics showed that there were 407 and 342 teachers in Dodoma and Mwanza regions, respectively (PO-RALG, 2017). Eighteen primary schools with SWD were purposely selected and included in the study. Out of the 18 schools, 4 teachers were conveniently sampled and involved in the study.

Data were collected from 72 teachers sampled from 749 targeted teachers from 18 primary schools in 6 districts in Dodoma and Mwanza regions. In-service teachers (9.6%) participated in filling out the TSES and TEIPCS to measure their self-efficacy and efficacy in inclusive practices, respectively. Apart from filling out the questionnaires, participants were observed in their classrooms using a modified IPCOS scale to measure their actual inclusive classroom practices. Participants were observed only once during classroom instruction due to time limitations and expenses involved in the study. The teachers' self-reported questionnaire scores were used to measure their perceived efficacy and level of efficacy in teaching in inclusive classrooms.

Data from Table 1 show that, 52 (72.2 %) females and 20 (27.8%) male in-service teachers participated in the study. In regard to age, the descriptive data revealed that the dominant mean age range was between 36 and 40 years. The majority of the teachers had certificates in education (73.6%), while the rest had either diplomas, bachelor's degrees, or master's degrees in education. Regarding the participants' training in special needs education, 29 (40.3%) of them had attended professional training in special needs education; while 59.7% of them had never attended any professional training in special needs education. Moreover, participants' teaching experience years ranged from 0–5 years to over 20 years ($M = 3.04$, $SD = 1.34$), whereas the number of years of teaching experience with children with disabilities had a mean score range of 0–5 years (70.8%), with only 20 teachers (7.9%) having more than 10 years' experience in teaching SWD.

MEASURES

DATA COLLECTION INSTRUMENTS

TEACHER SENSE OF EFFICACY SCALE (TSES)

The original version of the Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Hoy (2001) was modified and used with minor changes to assess teachers' perceived efficacy beliefs about the inclusion of SWD in an inclusive classroom. The instrument consists of 24 items. Permission to use the original scale for the study was requested via email from Tschannen-Moran and Hoy, who are the developers. The TSES was administered through a 9-point Likert scale ranging from “nothing” (1) to “a great deal” (9) representing the degree of continuum of the TSE. In this regard, teachers were asked to respond using a 9-point Likert scale, with choices of 1= nothing, 3 = very little, 5 = some influence, 7 = quite a bit, and 9 = a great deal. The responses to the 9-point items were reduced to a 5-point scale during data coding and data analysis. In previous studies by Tschannen-Moran and Hoy (2001) and Shaukat and Iqbal (2012) the scale was used in various settings, and found to be reliable and replicable in capturing teacher behaviors and explaining the invariance of teacher performance across cultures and countries. As far as the sample is concerned, the researcher analyzed the psychometric properties of the TSES after confirming its validity in measuring study variables.

Table 1
Frequency Distribution of Teacher Demographics (N=72)

Variable	Category	Frequency	Percentage
Sex	Male	20	27.8
	Female	52	72.2
Age	25-30	11	15.3
	31-35	14	19.4
	36-40	19	26.4
	41-45	11	15.3
	46-50	7	9.7
	51-55	7	9.7
	56-60	3	4.2
Level of Education	Master's Degree	2	2.8
	Bachelor's Degree	5	6.9
	Diploma	12	16.7
	Certificate	53	73.6
Professional Training	Attended	29	40.3
	Not attended	43	59.7
Teaching Experience	0-5 years	11	15.3
	6-10 years	15	20.8
	11-15 years	20	27.7
	16-20 years	12	16.7
	Over 20 years	14	19.4
Experience with SWD	0-5 years	51	70.8
	6-10 years	11	15.3
	11-15 years	6	8.3
	16 years and above	4	5.6

TEACHER EFFICACY FOR INCLUSIVE CLASSROOM PRACTICE SCALE (TEICPS)

To examine in-service teachers' use of inclusive classroom practices, the Teacher Efficacy for Inclusive Classroom Practice Scale (TEICPS) was used. The scale is a 23-item questionnaire used to measure teachers' efficacy to teach in inclusive classrooms with pupils with disabilities. The original TEIP scale was developed by Sharma, Loreman and Forlin (2012) and validated and modified by Park et al. (2016). The scale was also modified to suit the context of the current study. The adopted version of the TEICPS did not include efficacy in the collaboration dimension as it was outside the scope of the present study. It was replaced by *efficacy in engaging students in learning* to line up with the dimensions of the Social Cognitive Theory and the TSES instrument used to measure teachers' personal self-efficacy. The study did not include teachers' collaboration with other experts in the field of special needs education, teacher assistants, parents, or other school personnel.

On the other hand, there is variation in the context under which inclusive education is implemented. Moreover, the modified version with 23 items retained the three-factor structure, as suggested by Sharma, Loreman and Forlin (2012) and validated by Park et al. (2016). Items in the category of "*efficacy in engaging students in learning*" used in previous studies (Bulat et al., 2017; Sharma & Jacobs, 2016) were employed and subjected to principal component analysis (PCA),

which conformed to a 3-factor model. The modified version (TEICPS) is responded to on a 5-point Likert-type scale. Previous studies showed good psychometric properties of TEICPS in measuring teacher abilities in inclusive teaching practices (e.g. Sharma, Loreman & Forlin, 2012; Park et al., 2016; Monteiro et al., 2019). The Cronbach's coefficient alpha for the current study was .86.

INCLUSIVE PRACTICE CLASSROOM OBSERVATION SCALE (IPCOS)

To find out how teachers use inclusive teaching, in engaging and managing students in inclusive classrooms, the Inclusive Practice Classroom Observation Scale (IPCOS) was used (see Appendix 3). In order to identify effective teachers in inclusive classroom practices, several documents were reviewed (e.g. Decristan et al., 2017; Finkelstein et al., 2021; Jordan et al., 2010; Sharma & Sokal, 2016). Three observable practices, such as classroom management, student engagement, and instructional strategies, were the main focus incorporated in developing and modifying the IPCOS. The three domains were used in line with the theoretical underpinnings of the current study, which included social cognitive theory. The TSES tool was used to measure self-reported teacher efficacy beliefs. Five categories were used to assist the researcher in observing inclusive classroom behaviors. Higher scores on tasks given by the researchers were indicative of high performance by students as observed by teachers in inclusive classroom practices. A low score was indicative of low performance in inclusive practices.

The interpretation of the scores is as follows: 1=Unsatisfactory, 2=Satisfactory, 3=Good, 4=Very Good, and 5=Excellent. Score 1 (Unsatisfactory) indicates teacher's poor performance, while score 2 (Satisfactory) shows that the teacher has performed his or her task to a certain extent but was a bit below average. At the same time, score 3 indicates good teacher's performance, while score 4 shows a very good teacher's performance. Finally, a score of 5 indicates that the teacher excelled in a specific item(s), etc. The last part of the instrument requires the observer to write general comments about what transpired in the test. However, this was not captured by the instrument items.

DATA COLLECTION PROCEDURES

Data were collected between May and July 2019 from eighteen primary schools with SWD in two of Tanzania's administrative regions, Dodoma and Mwanza, respectively. Schools from both urban and rural areas were included for the study. Research clearance was sought from relevant authorities before data collection. In addition, prior to data collection, permission was sought from the original developers (e.g., Tschannen-Moran & Hoy, 2001), and researchers who validated the original version of the tools (e.g., Park et al., 2016). On the basis of the voluntary nature of respondents' participation, the researchers made personal contact with administrators of the sampled schools and targeted teachers after the research clearance was assumed. Respective teachers were given questionnaires (in hard copies) to duly fill in their responses. The questionnaires were collected from the respondents with the assistance of head teachers. Since the questionnaires were assigned identification numbers, the respective teacher was consulted to assist in contacting the teacher respondents and getting consents for classroom observations. The process lasted for 40 minutes, which is a normal classroom duration. The consented teachers and researcher arranged a specific time for observation.

After verbal consent and the commencement of teaching sessions, observations were recorded using the IPCOS and general notes were taken for data analysis. Note-taking was used for key events to capture details of classroom teaching and interactions. On average, 40 minutes were spent per observation session. The observer sat in the back, in a position that allowed him to observe the entire classroom without interfering with the teacher's instructional activities.

DATA ANALYSIS

The data analysis was conducted in two steps. The first step was descriptive statistical analysis, whereby the means and standard deviations of the scores were calculated. In addition, frequencies and percentages of demographic data were analyzed. The second step was the Pearson correlation analysis on whether or not there is a relationship between teachers’ self-reported efficacy and inclusive practice. Similarly, Pearson correlation analysis was used to examine the interrelationship between teacher self-efficacy, inclusive practice efficacy, and the observed inclusive classroom practices.

RESULTS

Data from the study were generated by compiling information from the TSES, TEIPCS, and IPCOS surveys before determining the interrelationship between teachers’ self-reported scores and teacher self-efficacy, efficacy in inclusive practices and their actual inclusive classroom practices. Descriptive statistics such as the mean and standard deviations of overall scores on sense of self-efficacy, efficacy in inclusive practices, and observed inclusive classroom practices were generated. Thereafter was the analysis of the correlation between teachers’ self-reported scores on TSES and TEIPCS and the observed actual use of inclusive practices.

Table 2 indicates participants’ overall mean scores on three scales: self-efficacy beliefs ($M=4.13, SD=0.7$) and teacher efficacy for inclusive classroom practice ($M=4.30, SD=0.80$), which indicate higher scores but moderate results for actual observed inclusive practices ($M=3.30, SD=0.64$).

Table 2
Overall Means, Standard Deviations (SD) and Minimum/Maximum of Total TSES, TEIPCS and IPCOS Scores (N=72)

	Mean	SD	Min.	Max.
Teacher Self-Efficacy	4.13	0.77	2.4	5
Teacher Inclusive Classroom Practices	4.3	0.803	2.5	5
Observed Classroom Inclusive Practices	3.3	0.640	1.9	4.5

The mean values of the TSES, TEICPS and IPCOS scores range from 1 to 5, with higher scores implying higher levels of self-efficacy, teaching efficacy and observed inclusive practices. This suggests that teachers reported higher efficacy beliefs in using inclusive classroom practices. A mean of 3.30 on the IPCOS scale indicates moderate actual inclusive practices with students with disabilities in the classroom. Results further suggest that despite high self-reported scores in self-efficacy and teaching efficacy, participants’ actual observed inclusive practices were moderate.

In order to examine teacher effectiveness in classroom inclusive practices, the dimensions of inclusive classroom practices were divided into three distinct dimensions: inclusive instructional practices, inclusive student engagement in learning, and inclusive classroom management and interaction. The mean ratings for the three dimensions are presented in Table 3. According to the table, teacher effectiveness in inclusive student engagement in learning was $M = 3.39$ and $SD = .608$, while classroom management and interaction were $M = 3.41$ and $SD = .698$. This was slightly higher than the $M = 3.3$ and $SD = .622$ for teacher-inclusive instructional practices. The

results suggest that most teachers' practices in the inclusive classrooms were average, with no significant rated differences in the three dimensions of the inclusive classroom practices.

Given that the TSES and TEICPS have a mean score above 4.0, the overall mean rating of total inclusive practice calculated by summing three dimensions of the IPCOS item and then getting the average across 72 teachers (M=3.30, SD=.640) indicates that teachers were moderately effective in their actual inclusive classroom practices.

Table 3

Mean rating Scores of the dimensions of Observed Inclusive Practice

Inclusive Classroom Practice	Mean	SD
Inclusive Instructional Strategies	3.2	0.622
Inclusive Student Engagement in Learning	3.39	0.608
Inclusive Classroom Management and Interaction	3.41	0.698

Prior to analysis of the extent to which self-reported teacher perceptions of efficacy in inclusive practices correlate to their actual use of inclusive practices, Pearson correlation coefficient (*r*) was calculated to examine the interrelationships among variables in the study. The correlation denotes the strength and direction of the relationship between two continuous random variables. Moreover, it does not assume normality of data and assumes the finite variances and covariance. Table 4 presents the summary results of non-parametric correlations among teachers' self-efficacy, efficacy in inclusive practices and teachers' inclusive practices observed in the classroom.

Table 4 shows a weak but positive and significant correlation between teachers' self-efficacy and teachers' efficacy in inclusive practice scores ($r=0.298^*$, $n=72$, $p<0.05$), as measured by the TSES and TEICPS, respectively. This indicates that the alternative hypothesis is supported, with a small effect size. In other words, results revealed that teachers with high self-efficacy are more likely to be effective in inclusive classroom practices than those with low self-efficacy.

When all three dimensions of teacher self-efficacy were correlated with dimensions of teacher efficacy for inclusive classroom practice dimensions, only two dimensions of TSE were statistically significant at the $p<.05$ level (sig. one-tailed), namely student engagement (SE) ($r = 270^*$, $n = 72$, $p<.05$) and classroom management (CM) ($r = 312^{**}$, $n = 72$, $p<.01$).

However, TSE in instructional practice was found to be insignificantly correlated with efficacy in inclusive instructional practices ($r = 0.132$, $n=72$, $p>.05$). The hypothesis was not supported. This means that teacher self-efficacy in this sub-scale does not relate to their efficacy in inclusive practices. The researcher concluded that teachers who scored higher in the self-efficacy beliefs sub-scale also scored highly in the efficacy for inclusive practice sub-scales. Implicitly, teachers with high TSE in the two dimensions of both measures were more likely to implement inclusive practices than others.

In finding out the correlations between self-reported beliefs measured by TSES and TEIPCS and their actual observed inclusive classroom practices, it was observed that there was a weak correlation, although it was not statistically significant ($r=0.153$, $n=72$, $p=0.10$, $p>0.05$). Although teachers' self-reported TSE and TEIPC scores were weak, they correlated with their classroom practices ($r = 0.298^*$, $n = 72$, $p<0.05$). However, there were no significant correlations in classroom observation scores. Regarding all three sub-scales under self-reported TSE, it was

found that self-efficacy in IP, SE and CM was weak but positively correlated with the observed inclusive classroom practices. The results revealed that these correlation coefficients were not statistically significant at the .05 level.

Likewise, when analyzing the correlations between the three sub-scales under teacher efficacy in inclusive practices and their actual observed classroom practices, it was identified that efficacy for inclusive instructional practices ($r=0.045$, $n=72$, $p=0.35$, $p>0.05$) and efficacy for inclusive students' engagement ($r=-0.024$, $n=72$, $p=0.42$, $p>0.05$) were correlated but not statistically significant. It was therefore concluded that there were no significant correlations among the total scores in TSES, TEICPS and IPCOS. It further implies that teachers' self-reported beliefs do not necessarily relate to their actual inclusive classroom practices. Interestingly, a weak but positive statistically significant correlation was found between teacher efficacy for classroom management and observed inclusive classroom management ($r=0.217^*$, $n=72$, $p=0.034$, $p<0.05$). Results suggest that teacher efficacy for classroom management and interaction elicits actual inclusive classroom management, but the strength of the two correlations is weak.

These results suggest that there is no statistically significant correlation between in-service teachers' mean scores in self-efficacy and teaching efficacy as measured by TSES and TEIPCS, respectively, and that of the teacher's observed classroom practices as measured by IPCOS scores. TSE and efficacy scores for inclusive practice constructs demonstrated this. The results also suggest that in-service teachers seemed to be weak in what they do in inclusive classrooms with students with disabilities compared to what they self-reported. Based on the results, teachers' actual inclusive classroom practices were less effective than their self-reported efficacies and efficacies for inclusive classroom practices. Results from the correlation analysis did not support the hypothesised correlations existing between teacher self-efficacy, efficacy in inclusive classroom practices and actual inclusive classroom practice.

DISCUSSION

The current study sought to examine the relationships between in-service teachers' self-reported scores on teacher self-efficacy, efficacy in inclusive practices, and their actual inclusive classroom practices in general primary schools with SWD in Tanzania. Past studies have documented that high efficacious teachers tend to be more inclusive in the general classroom with SWD (e.g. Coleman, 2017; Chao et al., 2017; Sharma & Sokal, 2016; Sharma et al., 2018). Accordingly, this study has confirmed the relationships between self-reported self-efficacy and inclusive classroom practices, which is consistent with previous studies. According to the findings, in-service teachers highly rated their ability to implement inclusive practices in classrooms with SWD. In other words, the results have indicated that as in-service teachers' self-efficacy beliefs became higher, their inclusive practices tended to improve, which is believed to improve their teaching performance in classrooms. The result suggests that teachers with higher degree of beliefs about their abilities to work in various classroom settings are seemingly effective in inclusive teaching practices. This further indicates that teachers with low levels of self-efficacy beliefs can demonstrate low performance in inclusive teaching practices.

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Table 4: Pearson *r* Correlation Matrix of Self-Reported Teacher Self-efficacy, Efficacy in Inclusive Practices, and Observed Inclusive Classroom Practice

			1	2	3	4	5	6	7	8	9	10	11	12
Teacher Self-Efficacy Beliefs	1. Total TSES Score	r	1	.934**	.944**	.935**	.298**	0.101	.307**	.333**	0.153	0.133	0.054	0.164
		Sig.		0.000	0.000	0.000	0.01	0.198	0.004	0.002	0.1	0.132	0.326	0.084
	2. TSE in Instructional Practices	r		1	.827**	.804**	.354**	0.133	.375**	.372**	0.118	0.096	0.043	0.132
		Sig.			0.000	0.000	0.000	0.132	0.001	0.001	0.163	0.21	0.361	0.134
	3. TSE in Student Engagement	r			1	.825**	.226*	0.04	.270*	.255*	0.107	0.097	0.004	0.141
		Sig.				0.000	0.03	0.37	0.011	0.015	0.186	0.209	0.488	0.118
	4. TSE in Classroom Management	r				1	.261*	0.115	.222*	.312**	.206*	0.182	0.106	0.187
		Sig.					0.01	0.169	0.03	0.004	0.042	0.063	0.188	0.058
Efficacy in Inclusive Practices	5. Total TEICPS Score	r				1	.792**	.863**	.819**	0.11	0.088	0.088	0.088	0.084
		Sig.					0.000	0.000	0.000	0.178	0.231	0.232	0.24	
	6. Efficacy in Instructional Practices	r					1	.529**	.420**	0.087	0.045	0.161	0.012	
		Sig.						0.000	0.000	0.234	0.355	0.088	0.459	
	7. Efficacy in Student Engagement	r						1	.612**	0.022	0.079	-0.02	-0.02	
		Sig.							0.000	0.427	0.256	0.421	0.438	
	8. Efficacy in Classroom Management	r							1	0.164	0.096	0.076	.217*	
		Sig.								0.084	0.212	0.262	0.034	
Inclusive Practices Classroom Observation	9. Total IPCOS Score	r								1	.826**	.708**	.808**	
		Sig.									0.000	0.000	0.000	
	10. IPCOS in Instructional Practice	r									1	.347**	.502**	
		Sig.										0.001	0.000	
	11. IPCOS in Student Engagement	r										1	.405**	
		Sig.											0.000	
12. IPCOS in Classroom Management	r												1	
	Sig.													1

** . Correlation is significant at the 0.01 level (1-tailed)

* . Correlation is significant at the 0.05 level (1-tailed).

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It could also be argued that in-service teachers had teaching experience, that some of them received special needs education training, and that they had constant contact with SWD as well as those without disabilities, all of which could contribute to their confidence in their ability to include SWD and use inclusive practices. This corroborates the work by Sokal and Sharma (2013) who found that teacher concerns about the inclusion of SWD in general settings declined when teachers received professional training and developed experience in teaching SWD and special needs. In addition, it is evident from their higher level of beliefs about SWD being included in the general classroom that they perceive positive effects of inclusive teaching SWD.

Interestingly, when self-reported efficacy scores were related with the observed inclusive classroom practice scores, the results from this study showed no statistically significant correlations. Weak positive correlations were found to exist between teachers' self-efficacy, teaching efficacy scores, and their observed inclusive classroom practices, but with no statistically significant value. These incongruent correlations found in the present study were not exceptional. This suggests that, despite participants reporting high levels of confidence in their ability to include SWD and apply inclusive teaching practices ($M = 4.13$ and $M = 4.3$), they were still struggling to use inclusive instruction, engage students in learning, and implement classroom management practices. This finding is consistent with those of previous studies, which showed that teaching efficacy scores were not necessarily correlated with actual classroom practice scores (see Ling, 2015; Poulou, Reddy & Dudek, 2019; Stanovich & Jordan, 1998; Sharma, & Sokal, 2016). The study findings indicate that relatively low levels of inclusive classroom practice remain a common challenge for in-service teachers teaching in primary schools with SWD and special needs.

LIMITATIONS

This study has several limitations that need to be considered when interpreting or using the results for generalization. First, because self-reported questionnaire instruments (e.g., Teachers' Self-Efficacy Scale (TSES) and Teachers' Efficacy for Inclusive Classroom Practice Scale (TEICPS)) were used in data collection, there is a possibility of response bias. This may affect the accuracy of the information as it depended on the teachers' honesty in reporting their responses (Ary, Jacobs & Sorensen, 2010). Some explanations obtained from self-reported instruments can be influenced by social desirability and response sensitivity related to participants' ego. Inconsistencies between what teachers reported as their efficacies and what they actually do in the classroom when observed can limit internal validity. The observation was taken into consideration by including classroom observation despite the fact that it had some limitations.

Further, classroom observations were conducted by the researcher alone, without an independent individual or more than one observer. There was no inter-rater reliability analysis due to restrictions on time and financial resources. Thus, it is recommended that independent and multiple observers be used in a similar study for replication. Furthermore, there were sampling biases and design limitations. The study involved only 72 teachers and employed correlational analyses using data from a questionnaire and classroom observations. Hence, it is recommended that the results from this study be interpreted and/or generalized cautiously because the data were collected from a small sample of in-service teachers and that the researcher himself conducted the observations.

CONCLUSION AND RECOMMENDATIONS

This study found that teachers rated themselves highly on what they perceived to be their ability to include and teach students with disabilities in general classrooms. Although reviewed research results indicate that self-reported teachers' efficacy beliefs can be a sensible and true reflection of what teachers are supposed to do in the classroom, the present study found that teachers' self-reported perceived efficacies were not statistically significant enough to reflect their actual classroom practices.

RECOMMENDATIONS FOR FURTHER RESEARCH

Due to the small sample and other methodological limitations mentioned earlier, it may be difficult for the results to be interpreted, and hence they should be generalized with caution. The results from the current study have practical implications for education and the body of knowledge. In this respect, it is recommended that the study be replicated by using a larger sample to investigate the fundamental mechanisms that could explain the reciprocal relationship between teachers' self-reported beliefs, actual teaching behaviors, and the environment in which they operate. Further studies should take into consideration the mixed-method approach that will involve observation by more than one observer and an in-depth interview of participants to cross-examine why they are not practicing what they reported as their true feelings or beliefs.

RECOMMENDATIONS FOR PRACTICE AND POLICY MAKERS

The study results showed that when studying relationships between teacher personal variables like teacher self-efficacy and teaching behaviors using self-reported measures, findings rely predominantly on participants' feelings, perceptions, and views, which would not be sufficient to understand what is actually taking place in the classroom environment. It is therefore important to observe the extent to which teachers' self-reported responses about their abilities in accomplishing a particular task are reflected in how effectively they implement inclusive classroom practices. Nevertheless, study results show that the context in which teachers work matters. The inclusive education policy narrative and guidelines are almost universally accepted and implemented, but what is actually happening does not correspond to the perceptions and beliefs of the teachers who are the primary implementers.

Further, it is clear from the study findings that weak correlations, which were also statistically insignificant, between teacher self-efficacy, teaching efficacy, and observed classroom behaviors explain the existence of a mismatch in teachers' self-reported beliefs in relation to inclusive practices. Therefore, it is sensible to help teachers improve their inclusive practices in the areas of instruction, student engagement in learning, classroom management, and teacher-student-interaction. In this regard, intervention approaches or efforts should be geared towards improving what is taking place in the classroom. This calls for skills and knowledge development through pre- and in-service training as well as professional development, focusing on inclusive instructional strategies, accommodation of diverse learning needs, or modifying an existing classroom to accommodate all learners with and without disabilities or special needs.

Additionally, the study's findings raise eyebrows for educators and policymakers about how to link policy reforms with classroom and school-level practice. Findings from this study and what previous studies have established, suggest that if all stakeholders in inclusive education wish to improve the implementation of inclusive classroom practices, developing teacher personal factors and modifying the classroom environment would be better options. Improving the working environment (school and classroom), as well as policy implementer preparation (cf. skills,

knowledge, beliefs, and experiences), and inclusive teaching strategies, are likely to result in commendable efforts to include and teach SWD in general classroom settings.

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