In-service Teachers' Self-efficacy to Practice Inclusive Education at Public Primary Schools in the Amhara Region: Implications for Teacher Education

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Abstract

The purpose of this study was to investigate teachers' self-efficacy for practicing inclusive education at public primary schools in the Amhara region and examining the effect of teachers' gender, level of education, and teaching experience. The study used a survey design. Participants included 336 public primary school teachers selected using a stratified systematic random sampling technique. The teacher Efficacy for Inclusive Practice (TEIP) scale was administered to sample teachers. Data were analyzed using descriptive and inferential statistical techniques. Teachers showed low level of self-efficacy on the TEIP scale. While gender did generate variations in teacher self-efficacy for practicing inclusive education, level of education and teaching experience did not generate significant variations. The results generally revealed that teachers had low sense of self-efficacy to practice inclusive education. It implies that the knowledge and skills teachers gained in special needs and inclusive education in teacher training programs were not adequate enough to practice inclusive education. Therefore, to make inclusive education useful for all students including students with special needs, it is essential to revisit teacher training programs in Ethiopia.

ARTICLE HISTORY

Received 29 September 2022 Accepted 30 December 2022

KEYWORDS

Teachers, self-efficacy, inclusive education, inclusive practice, teacher education

Introduction

These days, inclusive education is considered as the best approach to meet the unique learning needs of children with disabilities and special needs in their neighborhood age appropriate regular classrooms (Alquraini & Gut, 2012; Ydo, 2020). In an inclusive education practice, everyone particularly teachers are supposed to work to make sure that children with disabilities feel welcome and valued, and that they get appropriate support to help them develop their talents

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and achieve their goals (Kazanopoulos, Tejada, & Basogain, 2022; Kristiana & Hendriani, 2018). When implemented properly, inclusion promotes quality and equitable education for all, without exclusion, including those who may be potentially marginalized by learning needs or social positions (Hitches, Woodcock, & Ehrich, 2022; Woodcock, Sharma, Subban, & Hitches, 2022).

Since the 1980s, developed nations have been moving towards an inclusive approach and commencing to educated all children including children with disabilities in regular classrooms (Chambers & Forlin, 2021). In many developing countries including Ethiopia however, mainstreaming inclusive approaches into their education policy and strategy is a recent phenomenon (Daniels, 2010). The Ethiopian government, in an effort to educate children with special educational needs in the regular classrooms, has introduced Special Needs and Inclusive Education Strategy into the country's education system in 2012. Consequently, the practice of inclusive education is being underway in different parts of the country's primary schools including schools in the Amhara region.

The provision of relevant and quality education for students with special needs in an inclusive setting is influenced by several factors. One of the most important factors determining the effective implementation of inclusive education is teachers' level of self-efficacy (Özokcu, 2017; Paneque & Barbetta, 2006; Sharma, Loreman, & Forlin, 2012). Teacher efficacy, an important quality required from teachers who are involved in practicing inclusive education, can be defined as a judgment of a teacher's competencies to bring about desired outcomes of student engagement and learning, even when students are difficult or unmotivated (Bandura, 2012; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Hoy, 2001). Teacher's perception of their self-efficacy that is whether they can do well in an inclusive classroom has an important role to play in directing teachers' behavior toward inclusion (Bandura, 2012; Kristiana & Hendriani, 2018). It is reported that teachers with a high level of perceived self-efficacy have lived with better job satisfaction (Zakariya, 2020) and handle demanding student behaviors in a more professional ways (Zee & Koomen, 2016). High teacher efficacy has also been found positively correlated with teachers' quality of pedagogy including classroom management methods and enabling a supportive classroom climate (Kristiana & Hendriani, 2018).

Teacher self-efficacy has also been stated as one of the crucial factors that affect teachers' attitudes toward practicing inclusive education. Studies (Hitches et al., 2022; Woodcock & Jones, 2020; Woodcock et al., 2022) indicated the associations between teachers' self-efficacy with their attitudes toward inclusion and their practice of inclusive education. They further revealed that teachers with a high sense of teacher efficacy have positive attitudes toward students with disabilities and their inclusion, and they have a better interest to teach in inclusive classrooms. Whereas, teachers with a low sense of self-efficacy avoid teaching in classes with special needs students and make justifications; they feel that teaching in an inclusive classroom is a challenging task and beyond their abilities (Cherry, 2020; Donnelly, 2022; Kristiana & Hendriani, 2018).

Several studies were conducted to see the effect of demographic characteristics of teachers (e.g., gender, education, and teaching experiences) on their self-efficacy for practicing inclusive education. Regarding the associations between gender and teacher efficacy, contradictory results were obtained. While studies conducted by Mohamed Emam & Al-Mahdy (2020), Özokcu, (2018)

and Specht and Metsala (2018) revealed that the degree of teachers perceived self-efficacy were higher for female teachers as compared to their male counterparts, Reyhan & Babanoğlu 2016) found the opposite where male teachers had higher perceived self-efficacy beliefs than female teachers. In a more recent study, Kazanopoulos et al. (2022) also indicated gender as an insignificant factor in influencing teachers perceived self-efficacy for practicing inclusive education.

Concerning the effect of education and training on teacher efficacy, Wray, Sharma, and Subban (2022) indicated that knowledge and skill of inclusive education policies and strategies can raise the self-efficacy beliefs of teachers. Özokcu (2018) also found that the levels of teacher self-efficacy were higher for teachers who had taken previous courses about special education and teachers who have previously interacted with an individual with special needs. Additionally Matić, Škrbić, Kerkez, and Veselinović (2022) indicated that training that contributes to competencies related to the education of children with disabilities and experience in the implementation of inclusive education is connected with teachers' self-efficacy. Teachers believe in their professional abilities, knowledge, and skills to work with students with disabilities if they feel that they were well prepared to practice inclusive education (Zegeye, 2022).

The effect of teaching experience on teacher self-efficacy was another issue of concern among researchers. Wray et al. (2022) revealed that teaching experience and teaching context have an impact on teacher self-efficacy. Özokcu (2017) found that the levels of teacher self-efficacy were higher for experienced teachers. Mohamed Emam and Al-Mahdy (2020) also indicated that among Omani teachers who participated in the study, novice and inexperienced teachers reported higher teacher efficacy for inclusive practice in the collaboration dimension of teacher efficacy for inclusive practice scale compared to teachers with moderate experience, whereas experienced teachers and teachers with moderate teaching experience reported higher teacher efficacy for inclusive practice compared to novice teachers.

The preceding research results imply that when planning to implement inclusive education, one should first make sure that teachers have the required level of teacher efficacy that may help them practice inclusive education. The results further imply that assigning teachers to inclusive classrooms without adequate knowledge and skills of special needs and inclusive education may affect teacher efficacy for practicing inclusive education. This will also affect the effective implementation of inclusive education. In primary schools in the Amhara region, the implementation of inclusive education has been started without knowing regular school subject teachers' readiness for inclusive education practice, and to date, there is no research done to inform us about the state of teachers' perception of their self-efficacy for practicing inclusive education. Knowing teachers' level of self-efficacy before and/or during practicing inclusive education is vital to identify teachers' needs and devising appropriate training that helps enhance their sense of self-efficacy. This plays a pivotal role in constructing teachers' capability to cope with the demands of inclusive education practice(Martins & Chacon, 2021).

Problem Statement

Inclusive education requires that subject teachers become motivated, innovative, creative and flexible, and exhibit competence and confidence in their ability to accomplish various activities in an inclusive classroom. This performance helps to create improved performance and achievement of all students with and without special educational needs. Teachers who lack these attributes of self-efficacious teachers will take the responsibility of implementing inclusive education as something difficult, and they lack confidence in their capabilities (Chambers & Forlin, 2021; Zion & Sobel, 2014). This implies that if teachers who are currently teaching in our schools lack the attributes of self-efficacious teachers, they will adhere to use the traditional inflexible lesson plans and teaching approaches in a classroom where students with special educational needs are included. Furthermore, it indicates that inclusive education may not be realized in Ethiopian schools in general and in schools of the Amhara region in particular mainly by preparing, publishing and distributing several strategies and guidelines pertaining to inclusive education. Hence, to get the best out of inclusive education, among other things, schools need to have teachers who are able to effectively shoulder the challenges and demands of inclusive education.

Taking in to account the substantial roles played by teachers in the process of implementing inclusive education, the education system naturally prepares and checks teachers' self-efficacy for practicing inclusive education. However, there is no evidence which indicate that the Amhara region Education Bureau assessed whether teachers were capable to apply inclusive education or not before it started to implement inclusive education. In addition, the presence of legislations, policies, and strategies to implement inclusive education do not show that inclusive education is widely accepted and is yielding the expected benefits for all students in the Amhara region. Thus, it is significant to examine the self-efficacy of teachers who are currently teaching at primary schools for practicing inclusive education.

There is also a lack of evidence on whether the perceived self-efficacy of teachers varies due to their gender, teaching experience, and level of education. These important teacher variables that may affect teachers for practicing inclusive education in the current situation of primary schools were guided by the following research questions: (1) what is the perceived self-efficacy of teachers for practicing inclusive education at public primary schools in the Amhara region? (2) Do teachers' perceptions of their self-efficacy for practicing inclusive education vary across their gender, level of education, and teaching experience?

Significance of the Study

This study generated empirical pieces of evidence about teachers' perceived self-efficacy for practicing inclusive education at public primary schools in the Amhara region. This result is primarily important for education Bureau experts, policymakers, and other concerned bodies who have a stake in the education of children with special needs in inclusive settings. The result can also shed light on the significance of revisiting teacher education programs in the country. In addition, it may contribute to the body of literature in the areas of teaching efficacy and inclusive

education and finally, the results may initiate other researchers to undertake further research on this area.

Scope of the Study

Geographically, this study was delimited to 64 public primary schools found in the Amhara region. Concerning the variables, the study was delimited to teacher-perceived self-efficacy and inclusive education practice. Specifically, teachers' perceived self-efficacy was measured using Teacher Efficacy for Inclusive practice (TEIP) scale.

Methods

Design of the Study

Survey design was employed for this study. This design is appropriate when investigating specific variables of a theoretical framework and when seeking to discover possible relationships between groups of independent and dependent variables (Brink & Wood, 1998). Using this design, perceived self-efficacy of teachers for inclusive education practice and the relationship between demographic variables with teachers' perceived self-efficacy were investigated.

Study Area

The setting for this study was Amhara region, Ethiopia. The Amhara region is one of the eleven ethnically divided regions of Ethiopia, containing the homeland of the Amhara people. Previously known as Region 3, its capital is Bahir Dar. Specifically, this research was carried out in 64 public primary schools found in eight zones of the region.

Population, Sample, and Sampling Techniques

In the Amhara region as of 2019, there are about 9000 public primary schools. Of these primary schools, 160 schools have special units for children with disabilities and special needs and started implementing inclusive education. From these 160 public primary schools with special units, 64 of them were selected using a systematic random sampling method. In the 64 primary schools, there were 2880 (1410 males and 1470 females) teachers that form the population for this study. Of these teacher population, 336 (163 males and 173 females) teachers were selected as samples for this study using a stratified systematic random sampling technique. The necessary sample size was determined to be 336 teachers using the procedures of George and Mallery (2019) and Cochran (1977) formula.

Instrument

The Teachers' Efficacy for Inclusive Practices (TEIP) Scale, a standardized instrument developed by Sharma et al. (2012), was used to measure teacher-self efficacy to teach in inclusive classrooms. The scale has 20 items organized into three dimensions such as efficacy to use

inclusive instruction, efficacy in managing behavior, and efficacy in collaboration. Each item was rated on a 5-point Likert-type scale. Response alternatives range from 0 (Strongly Disagree) to 4 (Strongly Agree). Scores are determined by summing each item, with total scores ranging from 0 to 80. According to (Sharma et al., 2012) higher scores on the scale reflect greater self-efficacy for teaching in inclusive classrooms. It is also relatively recently developed in 2012 to remedy the weaknesses of earlier self-efficacy scales. This scale was reported to have sound psychometric properties with greater reliability and validity compared to other self-efficacy scales. It was tested across different cultures of respondents for reliability and the results yielded an average Cronbach's alpha of 0.87 and item correlations ranged from 0.40 to 0.75.

These shreds of evidence suggest that the TEIP scale is a simple and a reliable instrument to measure teachers' self-efficacy for teaching in inclusive classrooms. Reliability estimates were conducted using the pilot sample for the Teachers' Efficacy for Inclusive practices (TEIP) Scale. The Cronbach's alpha was found to be 0.89, which was higher than the previous use of the scale ($\alpha = .87$). Thus, this instrument is suitable for measuring teacher self-efficacy for inclusive education practice under the current context of public primary schools in the Amhara region, Ethiopia.

Data Analysis

To analyze the data, quantitative data analysis methods were employed. It was carried out using Statistical Package for Social Sciences (SPSS) version 22. Before starting the analysis, subscale scores were generated. The significance tests were examined at alpha 0.05 or 95% confidence interval. Statistical techniques such as descriptive and inferential statistics were employed. Descriptive Statistics were used to calculate the levels of teachers' self-efficacy for practicing inclusive education. Independent samples t-test was used to compare participants' self-efficacy for inclusive education practice based on gender, level of education, and teaching experience. One Way Analysis of Variance (ANOVA) was applied to find out a significant difference in teachers' self-efficacy for practicing inclusive education across their teaching experience.

Ethical Consideration

When conducting this study, the researchers followed ethical guidelines. Firstly, the researchers obtained the consent of participants. Then, they made the participants feel safe and secure regarding the information they provided on the issue under investigation. In other words, the researchers assured participants that the information they provide would be used only for research purpose. Moreover, to make participants feel more confident about the information they provided, each participant was pre-informed that her/his real name will not be used while reporting the results. They were also oriented to understand their rights to confidentiality and anonymity in the research process and the right to withdraw from the research at any time.

Results

Teachers' Perceived Self-Efficacy for Practicing Inclusive Education

In order to examine teachers' self-efficacy for practicing inclusive education considering children with disabilities in inclusive classrooms, descriptive statistics were computed. The results are presented in Table 1. This provides an indication of the range, minimum and maximum values as well as the mean and standard deviation for the self-efficacy scale in which the participants scored themselves regarding their efficacy to practice inclusive education for children with special needs in regular classrooms.

Table 1Descriptive Scores of Teachers Self-efficacy for Inclusive Education Practice (n = 336)

	N	Range	Minimum Score	Maximum Score	Mean	SD
Teachers' Self- efficacy	336	50	20	70	35.71	12.71

The results (Table 1) revealed that the mean score for teachers' self-efficacy for inclusive education practice is 35.71. This falls in the lower average range of the teacher self-efficacy for inclusive education practice scale. The minimum and maximum scores also indicate that there were no outlier scores indicating higher teacher self-efficacy score but that one or more of the teachers showed a self-efficacy score that fell in the high score range, which points to higher teacher self-efficacy for inclusive education practice.

Relationship between Demographics and Teachers' Self-Efficacy for Practicing Inclusive Education

A number of personal and environmental factors can promote or impede the self-efficacy of teachers for practicing inclusive education. The self-efficacy of teachers may be differentiated by various factors such as their gender, level of education and teaching experience. To identify any statistically significant differences among demographic variables (gender, education and teaching experience) and self-efficacy of teachers, independent samples t-test and one way ANOVA were computed. The results on these variables are presented as follows.

One of the objectives of the present study was to investigate if there was a statistically significant difference in teachers' self-efficacy for practicing inclusive education across their gender. To answer this question, participant teachers were categorized as male and female. Then, Independent samples t-test was conducted by using gender of teachers as independent variables and their self-efficacy scores as dependent variable. The results are presented in Table 2.

Table 2Results of t-test on Teachers' Self- efficacy for Inclusive Education Practice across their Gender (n = 336)

Groups	Mean	SD	t	df
Males	39.07	12.31	4.45	334
Females	35.18	11.09		

Note. *p < .05

The t-test results (Table 2) revealed a statistically significant difference in teachers' self-efficacy for inclusive education practice mean scores, t (334) = 4.45, p < .05 of male and female teachers. The descriptive results in the table also showed that female teachers had significantly lower mean scores as compared to male teachers. The result in perceived self-efficacy in managing behavior favors male teachers (M=11.74, SD=5.87, n=163) over females (M=9.98, SD=3.39, n=173) that generated significant differences (t (334) = 3.35, p < .05). Significant differences were not found between male and female teachers perceived self-efficacy in collaboration (males, M=12.42, SD=5.27; females, M = 11.55, SD = 4.79) and in inclusive instruction dimensions (males, M=11.64, SD=5.66; females, M=11.62, SD=4.62).

In order to examine possible differences in the perceived self-efficacy of teachers based on their level of education, t-test was computed. Comparisons were done by categorizing participant teachers in to groups of first degree and diploma holders. Independent samples t-test was computed by using level of education as independent variable and self-efficacy score as dependent variable. The results are presented in Table 3.

Table 3Results of t-test on Teachers' Self-efficacy to Practicing Inclusive Education based on Level of Education (n = 336)

Groups	Mean	SD	T	df
First degree	38.48	10.80	1.78	334
Diploma	36.13	12.27		

Note. *p > .05

The results (Table 3) disclosed a statistically non-significant self-efficacy mean score difference to practice inclusive education between first-degree and diploma holders (t (334) = 1.78, p > .05), with first-degree holder teachers scoring insignificantly higher on the teacher efficacy scale than diploma-holder teachers. The analysis further revealed the absence of significant variation in teachers' self-efficacy in inclusive instruction dimension where first degree holders (M=12.15, SD=3.94, n=136) and diploma holders (M=11.28, SD = 6.06, n = 200) yielded insignificant mean difference (t (334) = 1.48, p >.05). Similarly, insignificant variations in teachers' self-efficacy in collaboration dimension between first degree holders (M =12.86, SD

=5.11, n = 136) and diploma holders (M = 11.54, SD = 4.27, n = 200) revealed insignificant mean difference (t (334) = 1.45, p > .05). However, significant variations in teachers perceived self-efficacy in managing behavior between first degree holders (M =14.44, SD =5.10, n =136) and diploma holders (M=10.29, SD = 4.25, n = 200) revealed significant mean difference (t (334) = 8.10, p < .00).

To explore if the teaching experience influenced the self-efficacy of teachers for inclusive education practice, the sample was categorized into seven groups based on their rank and teaching services in years. The sub-samples formed with the rank and years of teaching experience from beginner teacher < 2 years' experience to high leading teacher > 18 years' experience as the details shown in Table 4.

Table 4 *Teachers' Teaching Experience (n = 336)*

Rank and Service years	N	Mean	SD
Beginner teacher (<2)	40	21.75	4.545
Junior teacher (3-5)	42	25.02	8.312
Teacher (6-8)	45	24.71	6.824
High Teacher (9-11)	43	30.05	10.427
Associate Teacher (12-14)	48	37.33	11.564
Leading teacher (15-17)	57	42.07	11.417
High leading Teacher (>18)	61	43.89	10.794

Then, one-way ANOVA where the teaching experience of teachers served as independent variables and total teacher self-efficacy for inclusive education practice scores as the dependent variable was conducted. The results are presented in Table 5.

Table 5Result of Teachers Self-efficacy for Inclusive Education Practice across their Teaching experience (n = 336)

Source	Sum of Squares	df	Mean Square	F	Sig.
Between	1141.605	6	190.267	2.079	.065
Within	30102.725	329	91.498		
Total	31244.330	335			

Note. *p > .05

As shown in Table 5 there was no statistically significant difference in teacher self-efficacy for inclusive education practice mean scores for teachers across their teaching experience (F (6,329) = 2.079; p > .05).

Discussion

Teachers' Perceived Self-Efficacy for Implementing Inclusive Education

The mean teachers' self-efficacy score of 35.71 on a score range of 0 to 80 shows lower self-efficacy of teachers for practicing inclusive education. This level of teacher self-efficacy score is an unwelcome score for any teacher required to teach in a classroom where students with disabilities and special educational needs are included. A score of 80 could be taken as a perfect and an impossible score particularly for teachers teaching under the current context of classrooms in the Amhara region. However, a mean score significantly above 40 (the middle value of the possible score range), were considered as promising results. The mean score of the participant teachers fell below the median scale value signifies a lack of self-efficacy to practice inclusive education. However, it is undeniable fact that teachers who are going to be assigned to teach in an inclusive classroom need to have a stronger and higher level of self-efficacy than other teachers teaching in non-inclusive classrooms. This is because, the implementation of inclusive education requires teachers with higher levels of self-efficacy that is instrumental to meet the diverse learning needs of all students with and without disabilities and special educational needs in an inclusive classroom (Cherry, 2020; Zegeye, 2022). Why is there such a lower level of teachers' self-efficacy? Appropriate answer/s to this question play/s a crucial role for it can guide policies and practices devised to improve teachers' self-efficacy for practicing inclusive education. These appropriate and well-taken answers to this question can appear when it is replied after discovering the factors that influence teachers' sense of self-efficacy for implementing inclusive education.

This result reveals that teachers with a lower level of self-efficacy for practicing inclusive education ho are teaching students with and without disabilities and special educational needs in regular classrooms provided little or no support to meet their special educational needs. The results of the present study indicates that teachers' low level of self-efficacy may be attributed to teachers' lack of knowledge and skills to practice inclusive education, poor administrative support, and lack of resources in schools. In line with the present study Specht and Metsala (2018) and Metsala and Harkins (2020) indicated that teachers with lower levels of self-efficacy often do not provide adequate inclusive practices for students with disabilities and special needs and are more likely to resist inclusive education practice. Furthermore, teachers with lower levels of self-efficacy are more likely to be hostile and negative to pupils with disabilities and special needs (Özokcu, 2018). Additionally, in favor of the present and past studies, Woodcock and Jones (2020) and Woodcock et al. (2022) indicated the role played by teacher self-efficacy in their practice of inclusive education. Therefore, it can be said that there is a strong connection between teachers' self-efficacy and inclusive education practice.

Teachers' Self-efficacy for Inclusive Education Practice and Demographics

Teachers' self-efficacy for practicing inclusive education may show variations depending on the knowledge and skills they have as well as availability of support provisions for them. Consequently, male and female teachers may not have the same level of knowledge and skills and support provisions that help them practice inclusive education. In the Amhara culture in which considering males as strong and superior than females was a norm, females may be expected to avoid more demanding tasks including practicing inclusive education in regular classrooms. As one expects, the findings of this study revealed the presence of statistically significant self-efficacy mean difference between male and female teachers. It is expected that when men and women are compared based on several characteristics, the results in most cases showed male superiority. This is because in Ethiopia, though women are respected and protected, they are placed far below men in their economic and social significance (Haregewoin & Emebet, 2003). As a tradition, women here in the Amhara culture in particular, have been considered child bearers, and homemakers and are not expected to contribute anything to the economic resources of the family and the society at large (Lailulo, Sathiya Susuman, & Blignaut, 2015). Accordingly, women evaluate themselves as less able than men. Studies conducted at different times and in different contexts have found similar and contradictory results to this study. While the results obtained by Mohamed Emam and Al-Mahdy (2020) are similar to the present finding, Reyhan and Babanoğlu (2016) reveal contradictory results indicating that female teachers have better self-efficacy than male counterparts. Unlike the preceding results including this study, very recently, the effect of gender on teachers' self-efficacy for inclusive education practice was found to be to be an insignificant factor (Kazanopoulos et al., 2022). All these inconsistent results imply to us that women and men are treated differently in different cultures which shapes their attitudes toward their capability for more demanding tasks and responsibilities, and as a result, females' an males' attitudes towards practicing inclusive education are different.

As it is shown by different studies, education is one of the greatest contributing factors to self-confidence and self- Efficacy development in teachers (Ainscow, Booth, & Dyson, 2006; Booth & O'Connor, 2012). It helps teachers to have improved skills and abilities by providing various means and opportunities to overcome the challenges and barriers they face in teaching students with diverse needs. It was also found that teachers who have sufficient knowledge and skills in special needs and inclusive education had higher scores on self-efficacy as compared to those teachers who have inadequate knowledge and skills in inclusive education (Alhassan & Abosi, 2014; Booth & O'Connor, 2012). However, contrary to past study results, the present study found a statistically insignificant difference in the self-efficacy for inclusive education practice mean scores of teachers across their level of education. The absence of significant difference in the present result may be attributed to the course contents of special needs and inclusive education given to first degree and diploma level student teachers that may be either similar or inadequate.

The role of teaching experience in maximizing teachers' self-efficacy for implementing inclusive education is unassailable across contexts. Taking this view in to account, the association between the teaching experience of teachers and their self-efficacy for inclusive education practice was examined. The result of the present study however showed the lack of association between these variables. Contrary to the present result, studies revealed the presence of a near-perfect trend, that is, when teachers teaching experience increases, the level of teachers' self-efficacy for inclusive education practice also increases (Irvine, 2019; Specht & Metsala, 2018). But in the present study, such a trend is not found, and it appears that teaching experience did not influence teachers' self-efficacy for practicing inclusive education. Hence, according to the present result

whether or not teachers have years of teaching experience, there is no difference among them in implementing inclusive education in regular classrooms. This absence of differences in teachers' self-efficacy across teaching experiences in the present study may be attributed to the recent introduction of special needs and inclusive education course in to the teacher education curriculum. Furthermore, it may be attributed to the lack of proper provision of this course for younger teachers who took the course which results in teachers' lack of sufficient knowledge and skills and lack of exposure to students with disabilities in regular classrooms.

Conclusion and Implications

The current study sheds light on the perceived self-efficacy of teachers for practicing inclusive education under the present context of public primary schools in the Amhara region, Ethiopia. Although some mixed results are obtained in some of the variables, the overall results of the present investigation are in agreement with the findings of previous studies. Self-efficacy levels are higher in male teachers than in female teachers. Level of education and teaching experience did not cause variations in teachers' self-efficacy for practicing inclusive education. As a group, teachers teaching in public primary schools in the Amhara region currently had low level of self-efficacy for practicing inclusive education which is indicative of lack of knowledge and skills they did get on special needs and inclusive education from the teacher training programs. Teachers with this low level of perceived self- efficacy for practicing inclusive education will not be able to manage complex teaching contexts and to respond to the unique needs of all students in their classrooms.

The results of the present study imply that teacher training institutions need to recognize the crucial functions of teacher self-efficacy for successful inclusive education practice and take appropriate actions to promote teacher self-efficacy. It is indicated that the self-efficacy of teachers for practicing inclusive education can be improved by implementing Continuous Professional Development (CPD) program that engage teachers in inclusive education activities (Nagy, 2019).

The results of the present study also imply that under the current context of primary schools in Amhara region, the CPD programs with the required depth and breadth on special needs and inclusive education should be given to subject teachers to enhance their competence for teaching in inclusive classrooms. This in-service CPD program will help ensure that teachers have the needed knowledge and skills on the instructional approaches to teaching in classrooms where students with disabilities and special educational needs are included.

The self-efficacy of prospective teachers can also be enhanced by providing sufficient knowledge and skills as well as practices on inclusive education. Teacher education institutions need to understand the roles and sources of self-efficacy. In teacher education programs, teachers should be given the chance to be mastered their respective field of study that has sufficient courses with practices in special needs and inclusive education. Practice-oriented mastery experience will help teachers to enhance their self-confidence. Regarding this, Bandura (2012) recommends that effective efforts nurture teacher self-efficacy. Hence, schools using CPD programs as well as

organizing workshops and trainings can promote the self-efficacy of teachers for practicing inclusive education.

Teacher educators should also understand the importance of teacher self-efficacy and its sources for inclusive education practice. So, teacher educators teaching in teacher training institutions need to instill in their prospective student teachers the essentials and skills of inclusive education. They need to assign student teachers during practical attachment in classrooms where students with different types of disabilities are included. This exposure and experience will help students to apply the knowledge and skills they obtained in the actual setting, and this will help them enhance their self-efficacy for inclusive education practice.

The issue of teacher self-efficacy in relation to inclusive education implementation is under researched in the Ethiopian context. The very focus of this investigation was mainly on the perceived self-efficacy of public primary school teachers for practicing inclusive education and its associations with demographic characteristics of the study participants in some selected primary schools in the Amhara region. However, the issue of teachers perceived self-efficacy for implementing inclusive education need to be investigated at schools that are found in the different parts of the country.

Limitations of the study

There were some limitations for this study that need to be mentioned. First, some participant teachers were hesitant to fill out and return the instrument-Teachers' Efficacy for Inclusive Practices (TEIP) Scale in time. Secondly, the researchers were not able to include some open-ended questions that could give participants the chance to describe their opinions. If the study had used such open-ended survey questions, more detail information could have been obtained.

References

- Ainscow, M., Booth, T., & Dyson, A. (2006). *Improving schools, developing inclusion*. Routledge.
- Alhassan, A.-R. K., & Abosi, O. C. (2014). Teacher effectiveness in adapting instruction to the needs of pupils with learning difficulties in regular primary schools in Ghana. *Sage open,* 4(1), 2158244013518929. https://doi.org/10.1177/2158244013518929
- Alquraini, T., & Gut, D. (2012). Critical components of successful inclusion of students with severe disabilities: Literature review. *International Journal of Special Education*, 27(1), 42-59. https://files.eric.ed.gov/fulltext/EJ979712.pdf
- Bandura, A. (2012). Cultivate self-efficacy for personal and organizational effectiveness. Handbook of Principles of Organizational Behavior: Indispensable Knowledge for Evidence-Based Management, 179-200.
- Booth, T., & O'Connor, S. (2012). Lessons from the Index for Inclusion; Developing learning and participation in early years and childcare. *Diversität und Kindheit*.

- Brink, P. J., & Wood, M. J. (1998). Descriptive designs. *Advanced design in nursing research*, 2, 287-307.
- Chambers, D., & Forlin, C. (2021). An historical review from exclusion to inclusion in Western Australia across the past five decades: What have we learnt? *Education Sciences*, 11(3), 119.
- Cherry, K. (2020). Self-efficacy and why believing in yourself matters. *Very well mind*. https://www.verywellmind.com/what-is-self-efficacy-2795954
- Cochran, W. G. (1977). Sampling techniques. John Wiley & Sons.
- Daniels, B. (2010). Developing inclusive policy and practice in diverse contexts: A South African experience. *School psychology international*, 31(6), 631-643.
- Donnelly, D. (2022). An exploration of the relationship between school culture and teacher efficacy in an elementary school setting. Southern New Hampshire University,
- George, D., & Mallery, P. (2019). *IBM SPSS statistics 26 step by step: A simple guide and reference*. Routledge.
- Haregewoin, C., & Emebet, M. (2003). *Towards gender equality in Ethiopia: A profile of gender relations*. Sweden: Swedish International Development Cooperation Agency, 11.
- Hitches, E., Woodcock, S., & Ehrich, J. (2022). Building self-efficacy without letting stress knock it down: Stress and academic self-efficacy of university students. *International Journal of Educational Research Open*, *3*, 100124.
- Irvine, J. (2019). Relationship between teaching experience and teacher effectiveness: Implications for policy decisions. *Journal of Instructional Pedagogies*, 22.
- Kazanopoulos, S., Tejada, E., & Basogain, X. (2022). The self-efficacy of special and general education teachers in implementing inclusive education in Greek secondary education. *Education Sciences*, 12(6), 383.
- Kristiana, I. F., & Hendriani, W. (2018). Teaching efficacy in Inclusive Education (IE) in Indonesia and other Asia, developing countries: A systematic review. *Journal of Education and Learning (EduLearn)*, 12(2), 166-171.
- Lailulo, Y. A., Sathiya Susuman, A., & Blignaut, R. (2015). Correlates of gender characteristics, health and empowerment of women in Ethiopia. *BMC women's health*, 15(1), 1-9.
- Martins, B. A., & Chacon, M. C. M. (2021). Sources of teacher self-efficacy in teacher education for inclusive practices. *Paidéia (Ribeirão Preto)*, 31.
- Matić, I., Škrbić, R., Kerkez, J., & Veselinović, M. (2022). Self-assessment of teacher efficacy in Serbia: Serbian adaptation of the Teacher Efficacy for Inclusive Practice (TEIP) scale. *European Journal of Special Needs Education*, 1-14.
- Metsala, J. L., & Harkins, M. J. (2020). An examination of preservice teachers' self-efficacy and beliefs about inclusive education. *Teacher Education and Special Education*, 43(2), 178-192.
- Mohamed Emam, M., & Al-Mahdy, Y. F. H. (2020). Teachers' efficacy for inclusive practices in the Sultanate of Oman: Effect of gender and teaching experience. *School Psychology International*, 41(2), 170-192.

- Nagy, T. K. (2019). Increasing self-efficacy in providing inclusive practices to students with diverse learning needs.
 - https://opus.govst.edu/cgi/viewcontent.cgi?article=1376&context=capstones
- Özokcu, O. (2017). Investigating the relationship between teachers's elf-efficacy beliefs and efficacy for inclusion. *European Journal of Special Education Research*.
- Özokcu, O. (2018). The relationship between teacher attitude and self-efficacy for inclusive practices in Turkey. *Journal of Education and Training Studies*, 6(3), 6-12.
- Paneque, O. M., & Barbetta, P. M. (2006). A study of teacher efficacy of special education teachers of English language learners with disabilities. *Bilingual Research Journal*, 30(1), 171-193.
- Reyhan, A., & Babanoğlu, M. P. (2016). Exploring self-efficacy beliefs of primary school teachers in Turkey. *European Journal of Education Studies*.
- Sharma, U., Loreman, T., & Forlin, C. (2012). Measuring teacher efficacy to implement inclusive practices. *Journal of research in special educational needs*, 12(1), 12-21.
- Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of educational psychology*, 99(3), 611.
- Specht, J. A., & Metsala, J. L. (2018). Predictors of teacher efficacy for inclusive practice in preservice teachers. *Exceptionality Education International*, 28(3).
- Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783-805.
- Woodcock, S., & Jones, G. (2020). Examining the interrelationship between teachers' self-efficacy and their beliefs towards inclusive education for all. *Teacher Development*, 24(4), 583-602.
- Woodcock, S., Sharma, U., Subban, P., & Hitches, E. (2022). Teacher self-efficacy and inclusive education practices: Rethinking teachers' engagement with inclusive practices. *Teaching and Teacher Education*, 117, 103802.
- Wray, E., Sharma, U., & Subban, P. (2022). Factors influencing teacher self-efficacy for inclusive education: A systematic literature review. *Teaching and Teacher Education*, 117, 103800.
- Ydo, Y. (2020). Inclusive education: Global priority, collective responsibility. *Prospects* 49, 97–101 (2020). https://doi.org/10.1007/s11125-020-09520-y
- Zakariya, Y. F. (2020). Effects of school climate and teacher self-efficacy on job satisfaction of mostly STEM teachers: A structural multigroup invariance approach. *International Journal of STEM Education*, 7(10), 1-12. https://doi.org/10.1186/s40594-020-00209-4
- Zee, M., & Koomen, H. M. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. *Review of Educational research*, 86(4), 981-1015. https://doi.org/10.3102/0034654315626801
- Zegeye, T. (2022). The perception of readiness for implementing inclusive education among primary school subject teachers: Implications for teacher education in Ethiopia.

International Journal of Special Education (IJSE), 37(2). https://doi.org/10.52291/ijse.2022.37.42

Zion, S., & Sobel, D. M. (2014). Mapping the gaps: Redesigning a teacher education program to prepare teachers for inclusive, urban US schools. *Journal of the International Association of Special Education*, 15(2), 63-73.