Effect of mentorship on regular teachers’ self-efficacy towards implementation of inclusive education at basic education level

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Introduction. Impaired teachers’ self-efficacy has contributed to delays in the implementation of inclusive education in Nigeria. Unfortunately, several efforts established towards ensuring the actualization of the Salamanca Declaration in Nigeria are yet to produce desired results. Although some past studies identified a mentor-mentee approach as a model that promotes the efficient implementation of established policies, paucity of research evidence exists on the implication of mentor-mentee approaches on the construction of teachers’ self-efficacy for inclusive education, particularly at the basic level of education. Objectives. This study was conducted to investigate the effect of mentorship on in-service regular teachers’ self-efficacy towards the implementation of inclusive education at the basic education level in Gombe State, Nigeria. Methods. A quasi-experimental research design was adopted for the study, while a purposive sampling technique was used to select 42 participants aged between 20 and 45 (\(M = 33.90, SD = 6.35\)) from two local government areas of the Gombe South Senatorial District. Participants were assigned to treatment and control groups, with 21 participants in each group. The Teachers’ Sense of Efficacy Scale (\(\alpha = .81\)) was used for data collection. Data collected was analysed with an independent sample t-test. Results. Findings showed the efficacy of a mentoring training program on the self-efficacy of in-service regular teachers towards effective implementation of inclusive education at the basic level of education. Also, male and older teachers had higher self-efficacy for the implementation of inclusive education at the basic education level. Conclusion. Mentorship programs significantly facilitate the achievement of inclusive education, particularly at the basic level of education. Well-designed mentorship programs for early career in-service regular teachers would equip them with an orientation that would guide them towards effective implementation of
inclusive education at the basic level of education. Based on the outcome of the study appropriate mentorship strategy for novice teachers was recommended.

Keywords: inclusive education, mentorship, teacher self-efficacy, basic education

Introduction

Background of the Study

Significant efforts and applications of appropriate measures in educational programmes, especially at the basic education levels, that is, Grade 1 to Grade 9, are germane to achieving remarkable success in the implementation of inclusive education in policies and programs in Nigeria. Hence, the implementation of effective inclusive education policies and programs at the basic education level in Nigeria is constantly evolving through the application of and experimentation of appropriate measures and efforts (Adetoro, 2014; Adigun, 2021). As a concept, inclusive education is an art and practice that ensures the utmost inclusion of children with special education needs in classrooms, without embracing any iota of discrimination. Across the globe, inclusive education is a term widely used for the purpose of addressing the needs of all learners, regardless of their disabilities (Adigun, 2021). The term “inclusion” has been highlighted to mean campaign and advocacy for equality, human rights, and social justice (Ajuwon, 2008; Hamid et al., 2015). Opoku et al. (2021) and Osisanya et al. (2015) assert that inclusion means giving the same privileges and opportunities to all learners – irrespective of disabilities, age, and group – and to learn under the same conditions without being marginalised.

Inclusive education is an umbrella term that encompasses considerations and strategies to support the diversity of learners in each context by minimising barriers to learning which may impact an individual’s ability to achieve his/her full potential. It ascertains that the learning environment promotes and sustains a sense of belonging and gives value and respect for talents, beliefs and backgrounds, regardless of learners’ learning differences and disabilities. Conceptualizing this locally, Nigeria – in response to the Salamanca Declaration (UNESCO, 1994) – included inclusive education in the National Policy on Education (NPE) and placed emphasis on the need to include all learners in regular classrooms (Federal Government of Nigeria [FGN], 2004). The emergence of this policy formed the foundation of an inclusive education program at the basic education level. Thus, the policy triggers the need for teachers to adapt to the new system and implement the principles of the NPE.

However, to date – after enactment of the NPE and domestication of the Salamanca Declaration (UNESCO, 1994) – inclusive education in Nigeria is yet to achieve the set goals or recorded significant progress in teachers’
commitment towards inclusive education. Lamentably, the practice of inclusive education in Nigeria is still plagued with attendant problems, which include, but are not limited to: inadequacy of political will to implement the required policy framework for the implementation of inclusive education; lack of adequate human and material resources for efficient implementation of inclusive educational frameworks; provision of adequate incentives and motivations for teachers in inclusive schools; ill-preparedness of service teachers for inclusive schools; poor attitude towards learners with special needs and the low morale of teachers; lack of required mentorship capacities, and impaired teachers’ self-efficacy for inclusive education (Adetoro, 2014; Adigun, 2021; Brydges & Mkandawire, 2020). Ajuwon (2012) and Okonkwo and Samuel (2020) highlighted additional problems such as limited teachers’ capacity, teachers’ self-efficacy, mentorship, and school leadership abilities.

Until now, irrespective of gender, Nigerian teachers, especially those at the basic level, have continued to struggle with ensuring the effective implementation of inclusive education (Nanjwan et al., 2019). Nanjwan et al. (2019) and Gjedia and Gardinier (2018) identified a lack of adequate mentorship for teachers’ self-efficacy so that they can implement inclusive education at the basic level of education effectively. Thus, mentoring of teachers for increased pedagogical content knowledge and delivery skills, increased teacher retention, job satisfaction and improved teacher self-efficacy are needed (Gjedia & Gardinier, 2018; Maphalala, 2013; Wiens et al., 2019). Described as a complex but interactive process, Petrovska et al. (2018) assert that mentoring is also a two-way interaction between individuals (mentor-mentee) of different levels of experience and expertise. In respect to the foregoing, Petrovska et al. (2018) aver that the mentor who is an expert should give needed support to mentees so that they can become more efficient in the workplace in a manner geared towards the achievement of institutional goals.

In their submission, Gjedia and Gardinier (2018) and Wiens et al. (2019) allude that professional development, efficiency, and career advancement in the workplace are the ultimate goals of the mentoring process. Essentially, in the educational sector (regular education, inclusive education, and special education), unlike un-mentored teachers, mentored teachers have enhanced potential to become successful in their profession and to improve overall learning outcomes (Ingersoll & Kralik, 2004). Hence, the process of adoption

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1 “Regular education” is the term often used to describe the educational experience of typically developing children.

2 “Inclusive education” is an umbrella term that encompasses considerations and strategies to support the diversity of learners in each context by minimising barriers to learning which may impact an individual’s ability to achieve his/her full potential.

3 “Special Education” are educational programs that are specifically designed for those students with exceptional abilities such as those who are with physical disabilities, behaviour and emotional disturbed, learners with sensory disabilities, the Gifted and Talented learners.
and implementation of the requirements of inclusive education goes beyond being a signatory to the Salamanca Declaration but involves training, re-training, capacity building and mentorship of non-special (regular) education teachers for effective and efficient implementation of inclusive education (Adigun, 2021). Therefore, if the states within Nigeria desire inclusive education at the basic level of education, regular teachers’ self-efficacy for effective implementation of inclusive education through mentorship must be prioritized.

Described as one’s competence to accomplish a given task (Bandura, 2006), self-efficacy further represents peoples’ claims about their capacity to exercise some control over their ability to initiate action, control behaviour, or intention to exhibit some characteristics (Adigun, 2020). In other words, self-efficacy implies that irrespective of domain or profession, people are proactive, self-regulating, self-organizing, and self-reflecting when viewed from the mastery of experiences, motivation, social persuasion, and emotional states (Kuyini et al., 2020; Okonkwo & Samuel, 2020). While the teaching profession has been regarded as stressful (Adigun et al., 2021), teachers’ self-efficacy remains a buffer for coping with associated stress and contentious phenomena in the implementation of pedagogical strategies and various educational approaches, such as inclusive education. Thus, teachers’ self-efficacy may inform teachers’ convictions to influence educational approaches, pedagogical strategies, and contents. As indicated by Skaalvik and Skaalvik (2007), teachers’ self-efficacy may influence teachers’ beliefs about their own abilities, attitudes, and behaviour towards teaching, particularly in an inclusive educational setting. While the assertion of Skaalvik and Skaalvik (2007) has been confirmed by other studies (Sharma et al., 2012; Özokçu, 2018; Yada et. al., 2018), the implications of mentoring on the self-efficacy of teachers, especially for inclusive education, is yet to be established in extant literature.

Although studies among teachers in general education have revealed the impact of mentorship programs on teacher self-efficacy, teacher retention, and capacity developments, Chizhik et al. (2018), for example, believed that mentoring teachers facilitates the provision of modelling effective teaching strategies and real-time feedback mechanisms, provision of emotional and professional support during and after teaching, and as acculturation into the school community. In their study, Allen and O’Brien (2006) placed a value on mentoring programs in teacher education and workplace programs. The duo noted that mentoring in the teaching profession could attract teachers’ interest in pursuing the realization of organizational goals, increased achievement motivation, enhanced pedagogical delivery, and increased retention rates. In another study by Van Zandt Allen (2013), which examined the impact of mentoring programs on the efficacy of 96 novice teachers for a period of four weeks, they found that the four-week mentorship program positively influenced feelings of effectiveness, with mentees using terms such as “I feel more
recharged and more competent”. Lyne (2013) adopted the pre/post-test quasi-experimental research design to assess the effect of mentoring programs on 21 Malaysian teachers who participated in mentoring programs. Findings reported by Lyne (2013) revealed significant improvement in teaching self-efficacy and pedagogical skills development of the participants.

Despite the plethora of research evidence on teacher self-efficacy, available evidence has shown that it is not only that there are inconsistencies in results prevented by previous studies, but a dearth of such studies have beamed research light on teacher self-efficacy for inclusive education, especially at the basic level of education. A study among 118 teachers from public schools in the district of Lahore in the Punjab province of Pakistan, by Shaukat et al. (2019), clearly revealed that gender variation has an impact on teachers’ self-efficacy for teaching learners with disabilities. In line with the studies of Anderson (2011) and Shaukat et al. (2013), who reported that female teachers teaching at the basic education level exhibited higher levels of self-efficacy beliefs in teaching students with disabilities, the study of Shaukat et al. (2019) found that female teachers had significantly higher mean scores for the TSE as compared to male counterparts whereas the result of the study of Kwon et al. (2019) confirmed that male teachers had higher teacher self-efficacy than female teachers in the application of technology in the teaching of diverse learners. In another study among 1430 pre-service teachers in Canada, Klassen and Chiu (2010) reported no statistically significant gender differences in relation to teacher self-efficacy for teaching in a specific educational programme. Similarly, no significant gender differences were observed by Moalosi and Forcheh (2015) as a factor that influenced teacher self-efficacy for classroom management and pedagogical skills.

In the past two decades, researchers (Bandura, 1997; Fisher & Rose, 2011; Hassan, 2019; Klaseen & Chiu, 2010) have identified age as a contextual variable that plays a significant role in the self-efficacy of teachers for professional development. Research findings have indicated that teachers’ age has an impact on teachers’ self-efficacy for classroom management. However, Bandura (1995) opined that age as a contextual factor might not be associated with self-efficacy because of differences in ego and individual differences. Tschannen-Moran et al. (1998) indicated that teachers’ self-efficacy is resistant to teachers’ age, and it probably has no influence on teachers’ potential and capacities for the delivery of pedagogical content. On the other hand, some other research avers that age influences variations of self-efficacy among teachers (Moafian & Ghanizadeh, 2009; Robinson & Edward, 2012). Moafian and Ghanizadeh (2009) advanced the difference in age difference in relation to pedagogical success. Their study concluded that a significant difference in teachers’ pedagogical success is linked with age, with older teachers having higher scores than their younger counterparts. Findings presented by Moafian
& Ghanizadeh (2009) were in congruence with what was reported by Robinson and Edward (2012), Lesha (2017), and Potter (2021). Conversely, some other research has found that teachers who are young have stronger and higher teacher self-efficacy beliefs and more expectations. For instance, a report presented by Shaukat and Iqbal (2012) indicated that younger teachers had better teacher self-efficacy in engaging students and implementing instructional strategies than older teachers.

Irrespective of any contextual factors such as age and gender, Chizhik et al. (2018) investigated the comparative effectiveness of mentoring programs on teacher self-efficacy. Chizhik et al. (2018) exposed some teachers to the use of the Shared Mentoring in Learning Environments (SMILE) program, and others to a traditional approach to mentoring. Findings presented by Chizhik et al. (2018) indicated that participants exposed to the SMILE program had extensive capacity and increased self-efficacy for teaching. Research evidence presented in the study by Chizhik et al. (2018) showed that with mentorship programs for teachers, there is potential for the development of pedagogical abilities and skills, and increased teachers’ capacity for beliefs about their teaching efficacy. In line with Klassen and Chiu, 2010 and Rubie-Davies et al. (2012), Chizhik et al. (2018) noted that mentorship for novice teachers could translate into increased retention rate in the teaching profession and elevated academic performances among learners. Forbis (2021) asserts that novice Adventist teachers in North America who participated in mentoring programs felt supported and gained moderate levels of implementation capacities for the execution of teaching objectives and instructional and relationship efficacy. As reported by Forbis (2021), mentoring had no effect on teacher commitment, but did affect teaching self-efficacy of teachers who participated in mentoring programs. While various research evidence on mentorship abounds in existing literature, there is a paucity of research studies on the effect of mentorship on regular teachers’ self-efficacy towards the implementation of inclusive education, particularly at the basic level of education.

Theoretical framework

This study is framed by the social cognitive theory (SCT) (Bandura, 1986). The theory assumes that an individual’s attitude or behaviour is influenced by a combination of three reciprocal factors; namely, personal characteristics (age, cognition, gender), environmental factors (for example, access to resources, social capital and support) and behaviour (competence, outcome and vigour of the behaviour, among others). Essentially, the construct of SCT is premised on the process of learning through observation and imitation (Bandura, 1986; Connolly, 2017). In addition, SCT holds that human behaviour and interactions are functions of cognition, personal attributes such as self-efficacy, and self-regulatory and self-reflective capacities which can drive changes motivated
by environmental forces/stimuli. However, as much as environmental forces/stimuli may serve as role models for a change in behaviour, the functionality of human cognitive ability to reason and interpret environmental occurrences, as well as personal beliefs (self-efficacy), remain an essential factor in motivating desired societal changes. In other words, teachers who are mentored and have the personal characteristics required for the teaching profession may derive the required capacity, skills, and pedagogical abilities from a well-stimulated mentorship program. Consequently, such mentoring programs must be carefully organized and structured in a manner that appeals to cognitive, affective, and psychomotor domains of mentee teachers.

Therefore, hinged on the SCT, the authors of this study believe that when regular teachers are properly guided, mentored and trained, they can contribute immensely to the development and achievement of the objectives of inclusive education, especially at the level of basic education in Nigeria. Regrettably, despite the enriching potential of mentoring programs in the educational sector as reported in past studies, there is a paucity of studies that have examined the effects of mentoring programs on regular teachers towards the effective implementation of inclusive education in Northern Nigeria.

**Aim of the study**

The aim of this study was to determine:

I. the difference in the regular teachers’ self-efficacy towards the implementation of inclusive education at the basic education level of the participants in both the experimental and control groups;

II. the difference in regular teachers’ self-efficacy towards the implementation of inclusive education at the basic education level based on the participants’ age and gender in both the experimental and control groups.

**Hypotheses**

I. There is a significant difference in the self-efficacy of in-service regular teachers exposed to mentorship programs and the control group towards the implementation of inclusive education at the basic level of education in Gombe state.

II. There is a significant difference in regular teachers’ self-efficacy towards the implementation of inclusive education at the basic education level based on the participants’ age and gender in both the experimental and control groups.
A quantitative quasi-experimental research design was adopted in this study by comparing an experimental group and a control group. In-service regular teachers of learners in Grade 9 (Junior Secondary School III) from the Gombe South Senatorial District, Gombe state in Nigeria, were purposively sampled for this study. Gombe state (10.3638° N, 11.1928° E) is one of the six north-eastern states of Nigeria. The state was chosen for this study because it is among the states that have started practising inclusive education following the launching of the Universal Basic Education Scheme. The study randomly sampled two out of the four Local Government Areas (LGAs) in Gombe South Senatorial District.

Two different Local Government Areas (LGAs), code-named A and B, were purposively selected to avoid contamination of treatment. In each identified LGA, five Local Educational Districts (LEDs) were purposively selected because of the availability of “inclusive model schools” at the basic education levels in the LGAs. Selected participants in each of the LEDs under LGAs ‘A and B’ were gathered in a very conducive facility and were pretested with the Teachers’ Sense of Efficacy Scale (TSES) (Tschannen-Moran et al., 1998). This implies that a total of 100 teachers (10 from each of the identified five LEDs) from both LGAs identified in the study attended the TSES. The researchers further purposively selected 42 teachers (21 each from each of the LGAs) of the 47 in-service regular teachers who scored below 60 in the TSES. The selected 42 participants comprised 18 males and 24 females aged between 20 and 45 years ($M = 33.90$, $SD = 6.35$). In-service regular teachers from LGA ‘A’ were purposively exposed to a seven-week mentorship training course on the implementation of inclusive education, while those in LGA ‘B’ were given a placebo treatment (no mentorship training programmes but advice and motivation on the importance of self-efficacy for teaching in inclusive classroom at the basic level of education). The post-test was conducted on the seventh week of intervention. The post-test was considered appropriate in order to ascertain the level of impact of the mentorship training programme on the efficacy of regular teachers for deployment and teaching in various inclusive schools in Gombe state, Nigeria.

Inclusion criteria

Participants were randomly selected through voluntary participation, and they had to meet the following inclusion criteria:

– Participants’ scores were below 60 on the Teachers’ Sense of Efficacy Scale (TSES).
– Participants signed the consent form.
– Participants were between their first and fifth year of in-service teaching. Teachers in the first five years of service in the state teaching service commission were chosen for this study not only because they were novice
teachers but also because they have energy and ideas that can be harnessed for classrooms management practices that could improve the learning environment of students irrespective of disabilities.

– Participants were between 20 and 45 years of age.

**Experimental group: Mentorship training**

The goal of mentorship training is to foster self-efficacy of in-service regular teachers who are mentees with a view to implementing inclusive education in basic education programs in Gombe State, Nigeria. Each session of the mentoring training program session, which occurred once a week, lasted 60 minutes.

– **Session 1**: General orientation, familiarisation, and administration of instrument to obtain pre-Test scores.

– **Session 2**: Facilitating, implementing, and administrating educational programs for learners with special needs in the inclusive classroom.

– **Session 3**: Overcoming associated challenges in the inclusive classroom.

– **Session 4**: Implication of personal beliefs, and self-regulatory and self-reflective capacities of regular teachers in the inclusive classroom.

– **Session 5**: Modelling appropriate pedagogical skills for inclusive education in the basic education programs.

– **Session 6**: Resilience building and coping mechanism against behavioural/repulsive disorders and tantrums in the inclusive education classroom.

– **Session 7**: Revision of all past activities in the previous session and re-administration of TSES for post-test.

**Control group**

Participants in this group were not exposed to any treatment (no mentorship training programmes) but were encouraged and motivated on the importance of self-efficacy for teaching in an inclusive classroom at the basic level of education for the same seven-week period doing their regular teaching activities.

**Research Instrument**

The instrument used was the Teachers’ Sense of Efficacy Scale (TSES) developed by Tschannen-Moran et al. (1998). No language translation was conducted in this study. This was because the scale was written in English, and the English Language is an official language in Nigeria and is also a means of academic engagement in schools. The long form of the TSES is a 24-item scale designed in a nine-point Likert scale of 1 = ‘Nothing’ to 5 = ‘A great deal’. The long form of the TSES has three subscales which are: (i) Efficacy in Student Engagement, (ii) Efficacy in Instructional Practices, and (iii) Efficacy in Classroom Management. The TSES was used to determine the level of self-

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4 “Novice teachers” are recent graduates of a teacher preparation program who may have little teaching experience primarily acquired during an internship and student teaching.
efficacy of the participants. The long form of TSES was adapted for this study to reflect a five-point Likert scale of 1 = ‘Nothing’ to 5 = ‘A great deal’. Adaptation was made to TSES used for the study to reflect issues of learners with special needs in an inclusive classroom. For instance, ‘How much can you do to control disruptive behaviour in the classroom?’ was changed to ‘How much can you do to control disruptive behaviour of learners with special needs in the inclusive classroom?’ The question, “How much can you do to get children to follow classroom rules?” was changed to ‘How much can you do to get learners with special needs to follow the rules in the inclusive classroom?’ The adapted TSES was used for a pre-test and post-test.

**Validity and reliability of the instrument**

The adapted TSES was subjected to face and content validity by three experts, two of whom specialized in academia and research in disability studies; the other expert specialized in Educational Measurement and Evaluation. Although past studies have reported reliability coefficients ranging from .84 to .94 (Perera et al., 2019; Rahayu & Wangid, 2021; Salas-Rodriguez et al., 2021), this study re-established the reliability coefficient of the adapted TSES among some 32 in-service regular teachers in basic schools in Gombe South Senatorial District. The responses gathered from 32 in-services regular teachers in basic schools were subjected to a reliability analysis to determine the internal consistency of the adapted TSES. Based on the analysis, an internal consistency value of .81 was achieved. Hence, the adapted TSES was found reliable.

**Ethical consideration**

Approval to conduct this study was secured from the Institutional Review Board (IBR) of the Federal University Lafia, Nigeria. In addition, permission to conduct the study in the various LEDs was secured from the Directors of Education in the selected LGAs. Heads of schools from which participants were drawn also approved the participation of selected teachers. All participants gave their signed informed consent to participate in the study at no cost.

**Data analysis**

To determine the significant difference in the self-efficacy of in-service regular teachers exposed to mentorship training programs and those in the control group towards the implementation of inclusive education at the basic level of education in Gombe state, Nigeria, data collected was analysed using One Sample t-test to analyse hypothesis 1 and an Independent Sample t-test to analyse hypothesis 2 at .05 level of significance.
## Results

**Hypothesis 1:** There is a significant difference in the self-efficacy of in-service regular teachers exposed to mentorship programs and the control towards the implementation of inclusive education at the basic level of education in Gombe state.

Table 1

**Computed differences in the self-efficacy of in-service regular teachers in the experimental and control groups**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-achievement in TSE for experimental group</td>
<td>42</td>
<td>3.83</td>
<td>3.98</td>
<td>6.24</td>
<td>41</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Pre-achievement in TSE for control group</td>
<td>42</td>
<td>3.90</td>
<td>4.07</td>
<td>6.22</td>
<td>41</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Post-achievement in TSE for experimental group</td>
<td>42</td>
<td>7.02</td>
<td>7.37</td>
<td>6.18</td>
<td>41</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Post-achievement in TSE for control group</td>
<td>42</td>
<td>5.07</td>
<td>5.18</td>
<td>6.34</td>
<td>41</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

There was a significant difference in pre-achievement TSE scores of in-service regular teachers for inclusive education at the basic level of education between the experimental group ($M = 3.83, SD = 3.98$) and the control group ($M = 3.90, SD = 4.07$); $t(41) = 6.24, p < .001$. Similarly, Table 1 showed a significant difference in post-achievement TSE scores in of in-service regular teachers for inclusive education at the basic level of education between the experimental group ($M = 7.02, SD = 7.37$) and the control group ($M = 5.07, SD = 5.18$); $t(41) = 6.34, p < .001$. Based on the mean values for both pre- and post-TSE scores of both the experimental and control groups, it is evident that the mentoring training programme for teachers’ self-efficacy for inclusive education at the basic level of education was potent. Hence, the null hypothesis was not rejected.

**Hypothesis 2:** There is a significant difference in the regular teachers’ self-efficacy towards the implementation of inclusive education at the basic education level based on age and gender of the participants in both the experimental and control groups.

Based on participants’ age and gender, Table 2 presents an independent-samples t-test which was conducted to compare the TSE score of in-service regular teachers in experimental and control groups for inclusive education in the basic level of education in Gombe state. Table 2 revealed a significant difference in the scores for pre-test vis-à-vis the participants’ gender [Male: $M = 14.11, SD = 2.26$; Female: $M = 7.58, SD = 1.62$; $t(19)= 0.85, p = 0.046$ of the control group]. Similarly, a significant difference was found in the post-Test scores vis-à-vis the participants’ gender [Male: $M = 9.78, SD = 0.67$; Female: $M = 9.14, SD = 1.08$; $t(19)= 2.07, p = 0.05$].
= 10.42, SD = 1.16; t(19)= 1.47, p = .04 of the control group]. While there was also a significant difference in post-test scores for TSE based on the participants’ age [20–32: M = 13.93, SD = 3.20; 33–45: M = 14.29, SD = 1.89; t(19)= -2.71, p = .005 of the experimental group]; no significant difference was found in the pre-test scores based on the participants’ age [20–32: M = 7.36, SD = 1.34; 33–45: M = 8.28, SD = 0.95; t(19)= -1.63, p = .26 of the experimental group].

Table 2

Computed differences in the self-efficacy of in-service regular teachers in the experimental and control groups based on age and gender of the participants

<table>
<thead>
<tr>
<th>TSE Scores</th>
<th>Group</th>
<th>N</th>
<th>M ± Std</th>
<th>F value</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-AE/Gender</td>
<td>Male</td>
<td>9</td>
<td>8.33 ± 0.87</td>
<td>1.42</td>
<td>2.28</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>12</td>
<td>7.17 ± 1.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-AE/Gender</td>
<td>Male</td>
<td>9</td>
<td>14.11 ± 2.26</td>
<td>3.26</td>
<td>0.09</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>12</td>
<td>14.00 ± 3.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-AC/Gender</td>
<td>Male</td>
<td>9</td>
<td>8.11 ± 1.05</td>
<td>4.57</td>
<td>0.85</td>
<td>.046</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>12</td>
<td>7.58 ± 1.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-AC/Gender</td>
<td>Male</td>
<td>9</td>
<td>9.78 ± 0.67</td>
<td>4.87</td>
<td>-1.47</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>12</td>
<td>10.42 ± 1.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-AE/Age</td>
<td>20–32</td>
<td>14</td>
<td>7.36 ± 1.34</td>
<td>1.37</td>
<td>-1.63</td>
<td>.26</td>
</tr>
<tr>
<td></td>
<td>33–45</td>
<td>7</td>
<td>8.28 ± 0.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-AE/Age</td>
<td>20–32</td>
<td>14</td>
<td>13.93 ± 3.20</td>
<td>9.85</td>
<td>-2.71</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>33–45</td>
<td>7</td>
<td>14.29 ± 1.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-AC/Age</td>
<td>20–32</td>
<td>17</td>
<td>7.70 ± 1.36</td>
<td>0.08</td>
<td>-0.69</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>33–45</td>
<td>4</td>
<td>8.25 ± 1.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-AC/Age</td>
<td>20–32</td>
<td>17</td>
<td>10.18 ± 1.07</td>
<td>0.93</td>
<td>0.31</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td>33–45</td>
<td>4</td>
<td>10.00 ± 0.82</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note. Pre-AE = Pre-achievement score of experimental group; Post-AE = Post-achievement score of experimental group; Pre-AC = Pre-achievement score of control group; Post-AC = Post-achievement score of control group

These results suggest that irrespective of gender and despite the fact that those in the control group were not exposed to the mentorship training programme, the participants in the control group showed potential for elevated teacher self-efficacy for teaching in inclusive schools at the basic level of education in Gombe state. The result further showed that age is a component that may influence elevated teacher self-efficacy for inclusive education at the basic level of education. This is shown in Table 2, with participants aged 33–45 having a higher mean value of 14.29 as compared to participants aged 20–32 with a mean value of 13.93. Based on the findings, this study accepts the hypothesis that there is a significant difference in the self-efficacy of in-service regular teachers towards the implementation of inclusive education at the basic education level based on age.
Discussion

Nigeria is yet to satisfactorily achieve the dictates of the Salamanca Declaration (Nanjwan et al., 2019; Osisanya et al., 2015; UNESCO, 1994). However, past studies revealed that the slow progress towards the achievement of inclusive education in Nigeria is attributed to several factors, such as impaired teachers’ self-efficacy, limited pedagogical capacity, and commitment. While other studies have extolled the implication of mentoring on capacity development (Allen & O’Brien, 2006; Chizhik et al., 2018), and there is yet such a study among in-service regular teachers for the purpose of inclusive education, especially in Nigeria, this study was designed to investigate the effect of mentorship on regular teachers’ self-efficacy for the implementation of inclusive education in Gombe state, Nigeria. Based on the mean values obtained for both pre- and post-TSE scores of both the experimental and control groups, it is evident that the mentoring training programme for teachers’ self-efficacy for inclusive education at the basic level of education was potent. In other words, the results obtained in the study attested to the fact that in-service regular teachers’ self-efficacy for the effective implementation of inclusive education is enhanced through an effective mentorship training programme.

From the finding of this study, it is evident that challenges faced in the effective implementation and practice of inclusive education at the basic education level in Nigeria (Adetoro, 2014; Adigun, 2021; Ajuwon, 2012; Okonkwo & Samuel, 2020) could be well managed through well-organised mentorship programs for regular in-service teachers. Such mentorship training programmes could adequately foster teachers’ sense of self-efficacy for teaching learners with special needs in an inclusive classroom. This present finding aligns with prior studies (Chizhik et al., 2018; Gjedia & Gardinier, 2018; Ingersoll & Kralik, 2004; Maphalala, 2013; Petrovska et al., 2018; Van Zandt Allen, 2013; Wiens et al., 2019). The finding further confirms the position of Forbis (2021) regarding the effect that mentoring has on teaching self-efficacy of teachers. A plausible explanation for the potency of mentorship programs on the efficacy of in-service regular teachers for inclusive education was established by Bandura (1986) and Connolly (2017) based on the assumption of the SCT that believed that learning and adequate bio-psychosocial adjustment, leading to the exhibition of expected or desirable human behaviour, could be influenced by cognition, personal attributes, and environmental forces or stimuli. Other studies also aver that mentorship for novice teachers could increase teacher retention rates, improve their teaching efficacy, and enhance teachers’ capacity for implementation and execution of instructional objectives and pedagogical deliveries (Chizhik et al., 2018; Forbis, 2021; Klassen & Chiu, 2010; Lyne, 2013; Rubie-Davies et al., 2012).

Our study established that age and gender are contextual factors that could influence the self-efficacy of in-service regular teachers for effective
implementation and practice of inclusive education at the basic level of education. Our study observed that male in-service regular teachers have a higher potential to enhance teachers’ self-efficacy for deployment for inclusive education at the basic level of education as compared to female counterparts. Also, this study notes that irrespective of gender, older teachers were more inclined to a higher level of teachers’ self-efficacy for inclusive education after being exposed to a mentorship training programme. This implies that age is a component that may influence elevated teacher self-efficacy for inclusive education at the basic level of education when mentored. In terms of gender vis-à-vis teachers’ self-efficacy towards the implementation of inclusive education, our findings lend support to the study of Kwon et al. (2019), who stated that male teachers had higher teacher self-efficacy than female teachers in the application of technology in the teaching of diverse learners. However, our findings contradict the outcome of the study reported by Anderson (2011), Klassen and Chiu (2010), Moalosi and Forcheh (2015), Shaukat et al. (2013), and Shaukat et al. (2019). While our study confirmed that male teachers had higher self-efficacy for the implementation of inclusive education, Anderson (2011), Shaukat et al. (2013), and Shaukat et al. (2019) reported that female teachers teaching at the basic education level exhibited higher levels of self-efficacy beliefs in teaching students with disabilities compared to male counterparts. Observed higher teacher self-efficacy for the implementation of inclusive education in our study may probably be attributed to the mentorship training programme in which male teachers participated. Unlike our findings, Klassen and Chiu (2010), as well as Moalosi and Forcheh (2015), reported no statistically significant gender differences in relation to teacher self-efficacy for teaching in a specific educational programme.

Also, our study affirmed that irrespective of gender, older teachers were more inclined to a higher level of teachers’ self-efficacy for inclusive education after being exposed to the mentorship training programme. Our study corresponds to Bandura (1997), Fisher and Rose (2011), Moafian & Ghanizadeh (2009), Klaseen and Chiu (2010), Lesha (2017), Potter (2021), Hassan, (2019), Robinson and Edward (2012) as well as Shaukat and Iqbal (2012) who had earlier presented and examined teachers’ age in relation to their self-efficacy for teaching. Unlike the finding presented in our study which found that teachers’ age influences their perceived self-efficacy for inclusive education teaching, other studies (Bandura, 1995; Tschannen-Moran et al., 1998) have proved otherwise of the implication of teachers’ age for teachers’ self-efficacy for delivery of pedagogical contents. Interestingly, the finding of this current study with regard to older teachers and higher self-efficacy is in congruence with that of Moafian and Ghanizadeh (2009), Robinson and Edward (2012), Lesha (2017), and Potter (2021), who found and reported that teachers’ pedagogical success is linked with age. According to the submissions, older teachers have...
higher teacher self-efficacy for teaching in a specific educational programme than their younger or novice counterparts. Conversely, the current finding in this study negates that of Shaukat and Iqbal (2012) who indicated that younger teachers had better teacher self-efficacy in engaging students and implementing instructional strategies than older teachers.

Conclusion and implication

This study has established the effects of mentorship on regular teachers’ self-efficacy for the implementation of inclusive education at the basic level of education in Gombe state. The outcomes of this study are important for the achievement of the objective of inclusive education, as stated in the Salamanca Declaration. In order to achieve a just and egalitarian society in a free and democratic society as stated in the National Policy on Education (FGN, 2004), it is important to build teachers’ self-confidence and self-efficacy that is needed to teach learners with special needs in an inclusive classroom. Thus, this study established that mentorship programs could facilitate the achievement of inclusive education, particularly at the basic level of education. Well-designed mentorship programs for early career in-service regular teachers would equip them with an orientation that would guide them towards effective implementation of inclusive education at the basic level of education. This concludes that age and gender are contextual factors that could influence the self-efficacy of in-service regular teachers for effective implementation and practice of inclusive education at the basic level of education. Male in-service regular teachers have a higher potential to enhance teachers’ self-efficacy for deployment for inclusive education at the basic level of education as compared to female counterparts. Also, older teachers were more inclined to a higher level of teachers’ self-efficacy for inclusive education after being exposed to the mentorship training programme.

Thus, the findings of this study will increase the participants’ teaching self-efficacy and modelled capacity that would guide them in the quest for teaching in inclusive classrooms. It will enhance in-service regular teachers’ understanding of inclusive education and also the implication of their personal beliefs regarding personal contributions to the effective implementation of inclusive education. Mentorship training programs used in this study may have served as a platform through which study participants have further discovered themselves.

Recommendations

Teachers’ self-efficacy is an important factor in the teaching profession. Hence, its implication on teachers’ capacity to teach learners with special needs, especially in inclusive education at the basic level of education, can never be
over-emphasised. However, while in-service regular teachers at the basic level of education may have lower efficacy for teaching learners and implementing inclusive education in Gombe state, Nigeria, mentoring of such teachers remains a viable option, not only for effective teaching of learners with special needs at the basic level of education, but also for efficient implementation of inclusive education at the basic level of education. It is expedient that such mentoring programs should be carefully planned and monitored. Carefully developed mentoring programs are geared towards building teachers’ self-efficacy for teaching learners with special needs at the basic level of education and for effective implementation of inclusive education and the complexity, process and function of in-service regular teachers for inclusive teaching must be considered.

There is a need to invest more resources towards the development of a pool of mentor teachers for inclusive education that will continually assist newly recruited teachers with tasks required for the implementation of inclusive educational practices. We recommend the need to embed mentoring training programs within in-service training programs for mid-career teachers. This will enable sustainable mentoring capacities among teachers for educational improvement and implementation of education policies and reforms. When mid/late career teachers mentor novice teachers in inclusive educational practices, there is more potential for novice teachers to feel confident and homely within schools. Such a process would enhance consistencies within schools, with a resultant positive effect on school climate and student engagement.

**Limitations and suggestions for further studies**

This study mainly considered early career in-service regular teachers’ self-efficacy in Gombe South Senatorial District and the implementation of inclusive education at the basic level of education. The study employed an experimental research design and presented a report regarding a seven-week training course. There is a need to institute a process of monitoring and evaluation of the mentoring programs geared towards the reportage of a longitudinal study. This study did not consider the implication of moderator variables, such as teachers’ gender and their attitudes towards persons with disabilities. Future studies may consider assessing the role of moderator variables when undertaking a quasi-experimental study that assesses mentoring programs on the implementation of inclusive education. This study was conducted in one district, thereby limiting the generalisation of the study. Therefore, it is suggested that the replication of this study elsewhere would be welcomed.
References


MENTORSHIP AND REGULAR TEACHERS’ SELF-EFFICACY


Efekat mentorskog rada na samoefikasnost nastavnika redovnih škola u implementaciji inkluzivne edukacije na nivou osnovnog obrazovanja

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Uvod: Nedovoljna samoefikasnost nastavnika doprinela je kašnjenju u primenu inkluzivne edukacije u Nigeriji. Nažalost, napori uloženi u obezbeđivanje aktualizacije Deklaracije iz Salamanke u Nigeriji još uvek nisu dali očekivane rezultate. Iako su neke prethodne studije identifikovale mentorski pristup kao model koji promoviše efikasnu implementaciju utvrđenih politika, mali broj istraživanja pruža dokaze o implikacijama mentorskih pristupa na učvršćivanju samoefikasnosti nastavnika u oblasti inkluzivne edukacije, naročito na nivou osnovnog obrazovanja. Cilj: Ovo istraživanje je sprovedeno kako bi se ispitao uticaj mentorskog rada na samoefikasnost nastavnika redovnih škola u primen ili inkluzivne edukacije na nivou osnovnog obrazovanja u državi Gombe u Nigeriji. Metode: U ovom istraživanju primenjen je kvazieksperimentalni dizajn, dok je prigodni uzorak sačinjen od 42 ispitanika uzrasta između 20 i 45 godina ($\bar{X} = 33.90, SD = 6.35$) iz dve oblasti lokalne samouprave u Južnom senatorskom okrugu u Gombeu. Ispitanici su bili podeljeni u grupu u kojoj je sproveden tretman i u kontrolnu grupu, sa po 21 ispitanikom u svakom poduzorku. U prikupljanju podataka korističena je Skala za procenu doživljanja samoefikasnosti nastavnika (Teachers’ Sense of Efficacy Scale) ($\alpha = .81$). Prikupljeni podaci analizirani su pomoću t-testa za nezavisne uzorke. Rezultati: Dobijeni nalazi ukazuju na efikasnost programa mentorske obuke u postizanju samoefikasnosti nastavnika redovnih škola u implementaciji inkluzivne edukacije na nivou osnovnog obrazovanja.

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obrazovanja. Takođe je nađeno da su nastavnici muškog pola i stariji nastavnici postigli viši nivo samoefikasnosti. **Zaključak:** Mentorski programi u značajnoj meri olakšavaju ostvarivanje inkluzivne edukacije, naročito na nivou osnovnog obrazovanja. Dobro osmišljeni mentorski programi na početku karijere nastavnika redovnih škola usmerili bi ih ka efektivnoj implementaciji inkluzivne edukacije u osnovnom obrazovanju. Na osnovu dobijenih rezultata ovog istraživanja predložene su prikladne strategije mentorskog rada za nastavnike koji su početnici.

**Ključne reči:** inkluzivna edukacija, mentorski rad, samoefikasnost nastavnika, osnovno obrazovanje

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