

# Assessment of Demographic Variables affecting Teacher Attitudes towards Inclusive Education in Ghana

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## ABSTRACT

**Purpose:** *This study examined teachers' attitudes towards the inclusion of learners with special educational needs in three schools in the Central Region of Ghana.*

**Method:** *The study adopted a cross-sectional survey involving 142 teachers (68 female teachers and 74 male teachers) selected from two special schools and one inclusive school in the Central Region of Ghana. Independent T-test and one-way ANOVA measures were used for data analysis.*

**Results:** *Age was found to be the most influential factor in determining teacher attitudes towards inclusion. Female teachers (48%) were more positive in overall attitudes than male teachers (52%). Younger teachers, who were between 20-30 years old and classroom teachers, were associated with positive attitudes towards learners with special educational needs. However, the level of education and length of professional service did not affect teacher attitudes towards these students.*

**Conclusion:** *The study concluded that, in general, educators in special schools and inclusive schools in the Central Region of Ghana have a positive attitude towards learners with special educational needs. Further in-service training for these teachers is recommended, as a means of improving teacher attitudes towards inclusion in Ghana.*

**Key words:** *attitudes, inclusive education, Ghana, special needs, developing countries*

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## INTRODUCTION

Inclusive education is a multi-faceted concept that seeks to appreciate the differences and diversity of learners while considering human rights, social justice, and equity, which are based on the social model and human rights models of disability (Artiles et al, 2006; Forlin et al, 2011). Inclusive education considers the needs of all learners and offers support by modifying the learning environment including the curriculum, physical classroom environment, pedagogy, and assessment techniques (Murdaca et al, 2018). Therefore, attitudes of teachers towards learners with special educational needs and children with disabilities should focus on how accessible and acceptable the learning environment is. Research on attitudes towards inclusive education and attitudes towards learners with special educational needs are abundant globally (Avramidis and Norwich, 2010; Mwaimba, 2014; Randiki, 2015; Deku & Vanderpuye, 2017; Ofor & Akinlosotu, 2017) but are scarce in sub-Saharan Africa. Meanwhile, teacher attitudes have been identified as decisive in successfully implementing inclusive education (Dulčić & Bakota, 2008; De Boer et al, 2011; Schmidt & Vrhovnik, 2015) because teacher attitudes affect how teachers readily accept the concept of inclusion and adapt teaching methods, strategies, and teaching environments to assist learners with special educational needs (Ryan, 2009). Positive teacher attitudes towards learners with special educational needs have been reported to positively impact teaching and learning in mainstreamed and inclusive educational settings, while negative attitudes have also been linked with ineffective teaching and learning which largely is associated with teacher apathy towards implementing inclusive educational practices (Avramidis and Norwich, 2010). Murdaca et al (2018) have noted that the successful implementation of inclusion requires a range of changes in the methods of teaching, pedagogy, and assessment, which rely not only on effective collaboration between the home, teachers, school, and the community, but also on teachers' attitudes and educational backgrounds. This study thus examined teacher attitudes at various periods of their professional service to determine whether their age, gender, and teacher designation affected their attitudes towards learners with special educational needs in Ghana.

The explanations for negative teacher attitudes have been extensively studied and it is reported that they are not only typically related to personal variables such as teachers' sex, age, training, length of professional service, or perceptions of disabilities (Scruggs & Mastropieri, 1996; Avramidis and Norwich, 2010; De Boer et al, 2011; Vanderpuye et al, 2018), but also to the severity of a

student's disability (Avramidis & Kalyva, 2007) and the teacher's role or designation (Moberg, 2003; Hernandez et al, 2016). Other studies have also reported relationships between teacher attitudes (Dupoux et al, 2005) and gender of teachers (Alghazo & Naggar Gaad, 2004), the severity of the learner's disability (Langdon & Vesper, 2000), values and beliefs of teachers (Dupoux et al, 2005), and training and teaching skills of teachers (Alghazo & Naggar Gaad, 2004; Haq & Mundia, 2012).

It has been generally reported that female teachers are more sensitive and positive about learners with special educational needs than their male counterparts. In a survey with 138 participants, AlMahdi and Bukamal (2019) reported that female teachers showed better attitudes towards learners with special educational needs than their male colleagues (Avramidis et al, 2000; Hodge & Jansma, 2000; Opdal et al, 2001; Ellins & Porter, 2005; Forlin et al, 2009). In a study with 122 teachers, Alghazo and Naggar Gaad (2004) found that male teachers used more negative terms such as "handicapped" or "stupid" in describing learners with special educational needs, compared to female teachers who used milder and more positive words like "less able" or "children with disabilities". Also, in a study involving 1155 participants, Romi and Leyser (2006) analysed pre-service teachers' attitudes and reported that female teachers were more positive towards learners with special educational needs than their male counterparts. Similarly, Saloviita (2020), in a survey of 4567 classroom teachers, reported that female teachers showed better attitudes toward learners with special educational needs than male teachers. Other studies (Avramidis et al, 2000; Hodge & Jansma, 2000; Opdal et al, 2001; Ellins & Porter, 2005) have also described female teachers' attitudes towards inclusion of learners with special educational needs as more positive than the attitudes of male teachers.

In contrast, Alhassan (2014) has reported no gender differences in attitudes among 108 teachers from two districts in Ghana who participated in a study. Other researchers (Van Reusen et al, 2000; Carroll et al, 2003; Parasuram, 2006; Al-Zyoudi, 2006; Varcoe & Boyle, 2013) have also reported no differences between both male and female teachers' attitudes towards learners with special educational needs. These inconsistencies in the attitudes between male teachers and female teachers towards inclusive education have also been reported by Avramidis et al (2000) and Bailey et al (2015).

The age of a teacher has also been reported to affect teacher attitudes towards the inclusion of learners with special educational needs. Tabakhmelashvili

(2008) indicated that older teachers showed more negative attitudes to inclusion than younger teachers did. Mashiya (2003) explains that ageing teachers and educators did not adapt to modern teaching approaches for learners with special educational needs and this led to their negative attitudes. In contrast, Nyaigoti (2013) has stated that older teachers were found to have better attitudes than younger teachers, possibly due to their experience in teaching learners with special educational needs throughout their careers. Meanwhile reports from other studies have suggested that teachers' age did not in any way influence attitudes in inclusive and special school settings (Tůmová, 2012; Dukmak, 2013). In Ghana, since learners with special educational needs have teachers from different age groupings, knowledge of these characteristics is essential.

The length of professional service has further been reported to influence teacher attitudes towards inclusion. Familiarity with learners with special educational needs affects teachers' behaviour in both inclusive and special schools. Experienced teachers showed better comprehension in their attitudes towards special education needs children; therefore, Avmaridis and Norwich (2010) and Leyser and Tappendorf (2001) have stated that teacher attitudes are not closely linked to any other predictor than the cumulative years of experience in teaching learners with special educational needs. For instance, Schuster (2013) found that older and more experienced teaching staff in Saskatchewan had positive attitudes towards learners with special educational needs. Similarly, in Kenya, teachers with longer teaching experience reported more tolerance and confidence in addressing learners with special educational needs in their classrooms (Mwaimba, 2014; Ofor & Akinlosotu, 2017). Lambe and Bones (2006), on the other hand, claimed that fewer teachers with less experience, such as pre-service teachers who had no contact with learners with special educational needs, were more optimistic about inclusion than teachers with more experience. In support of this, Dukmak (2013) believes that positive teacher attitudes to inclusion are inversely related to the length of professional service.

Schuster (2013) has noted that teachers working in rural areas are more likely to show more positive attitudes towards learners with special educational needs than their counterparts in urban areas, because they are more in contact with and comfortable with the children. In a report on inclusive education in rural schools, nevertheless, Moreno et al (2015) revealed that teachers in rural areas do not take full advantage of the background in which they are situated, thereby portraying negative attitudes towards learners with special educational needs.

Florian (2012) again claims that general classroom teachers viewed inclusion as a hindrance to other children's successful education, so they were more negative in their attitudes than special education teachers. However, Dukmak (2013) explored regular classroom teachers' attitudes towards the inclusion of children with disabilities in the United Arab Emirates and reported that generally all teachers, whether regular, special, or subject teachers, were positive towards inclusion, with male teachers being more positive than female teachers. Saloviita (2020) reported statistically significant variations in attitudes of special education teachers and subject teachers, with special education teachers scoring the highest and subject teachers scoring the lowest in a one-way ANOVA (analysis of variance) test.

## **Objective**

This study examined how different demographic variables (gender, age, level of education, length of professional service, and teacher designation) affect the inclusion of learners with special educational needs in inclusive and special schools in Ghana.

## **METHOD**

### **Study Design**

The study adopted a cross-sectional survey using a modified version of the Teachers' Attitude to the Special Need Students Questionnaire -TASNSQ (Offor & Akinlosotu, 2017) for data collection.

### **Study Sample**

Among the 142 teachers who participated in the study, 68 (48%) were female teachers and 74 (52%) were male teachers. The teachers, aged between 20 years and 59 years, taught in Early grade, Upper Primary or Junior High School. They were sampled using the census sampling technique (see Table 1). Selected schools were stratified, with Schools A and C as special schools for the Deaf/ Blind and School B as an inclusive school.

**Table 1: Demographic Information of Participants**

Variables		N	%	X	SD
Age	20-30	24	16.9	0.5	4.2
	31-40	36	25.4	47.6	4.0
	41-50	42	29.6	48.0	3.2
	51+	40	28.2	46.7	5.7

### Data Collection

The questionnaire was divided into two parts. Part A collected information on the personal data of teachers, such as sex, age, educational level and teaching experience, teacher designation and type of school. Part B contained 21 items which were rated on a 4-point Likert scale as Strongly Agree (SA) - 1, Agree (A) - 2, Disagree (D) - 3, and Strongly Disagree (SD) - 4. The Cronbach alpha ( $\alpha$ ) was used to measure the reliability of the instrument and yielded a reliability coefficient of 0.707.

All questionnaires were self-administered and returned to the researchers on the same day as they were given out. On-site field checks ensured that the participants answered each item on the questionnaire. The questionnaire was completed in about 20 minutes.

### Data Analysis

The independent sample t-test and one-way ANOVA were used to test the relationships between variables in the study and the total teacher attitudes. The total attitude was set as the dependent variable while gender, age, length of professional service and teacher designation were the independent variables in the study.

### Ethical Considerations

Permission to conduct the study and consent was sought from the heads of all institutions and teachers before questionnaires were administered. The teachers who did not agree were excluded from the study.

## RESULTS

### a) Gender

An independent sample t-test was performed to compare the male and female teachers' attitudes and designation of teachers toward inclusion (see Table 2). A

significant difference in male teachers' attitudes ( $M=46.80$ ,  $SD=4.72$ ) and female teachers' attitudes ( $M=49.19$ ,  $SD=4.05$ );  $t(140) = -3.230$ ,  $p = 0.002$ , was recorded. This result suggests that gender affects teachers' attitudes toward inclusion. Specifically, female teachers' attitudes were more positive than their male counterparts.

**Table 2: Independent Sample T-test on Gender Effect on Teachers' Attitudes towards Learners with Special Educational Needs**

Variables	Total n (%)	Attitude of teachers towards inclusion				
		M	SD	F	df	p-value
<b>Gender</b>				0.500	140	.002**
Female	68(47.9)	46.80	4.72			
Male	74(52.1)	49.19	4.05			

\*\*  $p < .01$

### b)Teacher Designation

In terms of the designation of teachers, this study recorded a significant difference between attitudes of subject teachers ( $M=47.19$ ,  $SD=3.92$ ) and classroom teachers ( $M=48.86$ ,  $SD=5.11$ );  $t(140) = -2.199$ ,  $p = 0.030$  (see Table 3). This means that classroom teachers were more positive towards inclusion than subject teachers.

**Table 3: Independent Sample T-test on Effects of Teacher Designation on Teachers' Attitudes towards Learners with Special Educational Needs**

Variables	Total n (%)	Attitude of teachers toward inclusion				
		M	SD	F	df	p-value
<b>Designation of Teacher</b>				1.614	140	.030*
Female	68(47.9)	47.19	3.92			
Male	74(52.1)	48.86	5.11			

\*  $p < .05$

### c) Age

The study used a one-way between subjects ANOVA to compare the effects of age, level of education, and length of professional service on teacher attitudes toward inclusion (see Table 4). The effect of age on teacher attitudes was statistically significant at the  $p < .05$  level for the age ranges [ $F(3, 138) = 3.916$ ,  $p = 0.010$ ]. A Post Hoc comparison using the Turkey HSD test showed that the mean score for the 20-30 age group ( $M=50.50$ ,  $SD=4.220$ ) was significantly different from the

age group above 50 years ( $M=46.65$ ,  $SD=5.75$ ). However, the 31-40 age group ( $M=47.56$ ,  $SD=4.05$ ) did not differ significantly from the 41-50 age group ( $M=48.05$ ,  $SD=3.22$ ). These results suggest that attitudes towards inclusion are influenced by age of the teacher. Specifically, the findings of this study showed that teachers' attitudes towards inclusion are more positive when teachers are younger, and there is a decline when they are older and closer to retiring. It is also revealed that mid-year age groups did not appear to significantly affect teacher attitudes towards inclusion.

**Table 4: One-way ANOVA Results on the Effects of Age on Teacher Attitudes towards Learners with Special Educational Needs**

Variables	Total sample n (%)	Attitude of teachers towards inclusion of Learners with Special Educational Needs				
		M	SD	F	df	p-value
<b>Age</b>				3.916	3	.010*
20-30	24(16.90)	50.50	4.22			
31-40	36(25.35)	47.56	4.05			
41-50	42(29.58)	48.05	3.22			
51+	40(28.17)	46.65	5.75			

\*  $p < .05$

#### d) Level of Education

By comparing the effects of the level of education on teachers' attitudes towards inclusion, the study reported no statistically significant differences at the  $p < .05$  level for the four conditions [ $F(3, 138) = 0.665$ ,  $p = 0.575$ ] (see Table 5). This suggests that the level of education of a teacher does not influence the attitude towards inclusion.

**Table 5: One-way ANOVA Results on the Effects of Level of Education on Teacher Attitudes towards Learners with Special Educational Needs**

Variables	Total sample n (%)	Attitude of teachers towards inclusion of Learners with Special Educational Needs				
		M	SD	F	df	p-value
<b>Level of Education</b>				0.665	3	.575
Teacher's Cert A	2(1.41)	50.50	0.71			
Diploma	30(21.13)	47.23	5.76			
Bachelor's	98 (69.01)	47.98	4.20			
Master's degree	12(8.45)	49.00	4.35			



### e) Length of Professional Service

In addition, this study reported no significant effect of length of professional service on teacher attitudes towards inclusion at  $p < .05$  for four conditions [ $F(3, 138) = 1.481, p = .222$ ] (see Table 6). This suggests that in special schools and inclusive schools in Ghana, the length of professional service does not affect teachers' attitudes towards inclusion.

**Table 6: One-way ANOVA Results on the Effects of Length of Professional Service on Teacher Attitudes towards Learners with Special Educational Needs**

Variables	Total sample n (%)	Attitude of teachers towards inclusion of Learners with Special Educational Needs				
		M	SD	F	df	p-value
<b>Length of Professional Service</b>						
0-5	57(40.14)	47.87	3.97	1.481	3	.222
6-10	25(17.61)	49.60	2.94			
11-15	18(12.68)	47.33	3.76			
16+	42(29.57)	47.33	6.06			

\*  $p < 0.05$

## DISCUSSION

Findings from this study suggest that gender affects teacher attitudes toward inclusion. Analysis from the independent sample t-test performed to compare the teacher attitudes showed a significant difference in favour of female teachers. These findings are consistent with reports by AlMahdi and Bukamal, (2019) and Saloviita (2020) that female teachers' attitudes towards inclusion were better than the attitudes of male teachers. Similarly, Ellins and Porter (2005) confirmed this by reporting that male teachers' attitudes were more negative than those of female teachers. The Index for Inclusion (Booth & Ainscow, 2002) defines inclusion as perceiving student differences as a resource to assist learning rather than as a problem to be solved; however, in this study, findings indicate this was not necessarily the view of male teachers. In the Ghanaian culture, women are more hospitable and accommodating of children with disabilities and learners with special educational needs, than men. For instance, anecdotal evidence suggests that mothers rank higher than fathers in terms of clinical attendance and follow-up services when it involves children with disabilities. It is therefore common for mothers of children with disabilities to take care of their children without support from men, as men generally consider this responsibility a burden. This provides

a plausible explanation as to why the current study reported more positive female teachers' attitudes toward inclusion than that of their male counterparts. In contrast, Alhassan, (2014) reports no gender differences in attitudes among 108 Ghanaian teachers who participated in a study from two districts in Ghana.

The current study reported a significant effect between age and teachers' attitudes towards inclusion at the  $p < .05$  level for the age ranges. To support this finding, Mashiya (2003) and Tabakhmelashvili (2008) reported that older teachers were more negative towards inclusion than younger teachers. For junior teachers a transition from learning to teaching occurs, and this forms an integral part of their life. Junior teachers often try to build their identity based on their beliefs about what an ideal teacher should be, according to Rodgers and Raider-Roth (2006), and thus offer their best to students. Therefore, when teachers are younger, they are more enthusiastic to serve than when they are older and closer to retiring. This could explain the finding of the current study. In contrast, Nyaigoti (2013) found older teachers to have better attitudes than younger teachers, possibly because of the experiences they have gained in teaching learners with special educational needs during their careers. This may explain why the results indicate that the age of the teacher influences attitudes towards inclusion. The findings of the current study are in contrast to the findings of Dukmak (2013) and Tůmová (2012) who have reported that teachers' age did not influence attitudes towards learners with special educational needs in inclusive and special school settings.

Also, the findings of the current study report no significant effect between teachers' attitudes towards inclusion and their level of education [ $F(3, 138) = 0.665, p = 0.575$ ] and cumulative length of professional service [ $F(3, 138) = 1.481, p = 0.222$ ] at the  $p < .05$  level for the four conditions. This puts forward the suggestion that a teacher's educational level does not affect the attitude towards inclusion. The finding is contrary to the report of Parasuram (2006) that teachers who are Master's degree holders showed more positive attitudes than teachers who were Bachelor's degree holders or were Higher Secondary Certificate holders. In Ghana, teachers in inclusive or special schools take a mandatory course in introduction to special education during their training at the diploma level, degree level and Master's level. The current study's finding is consistent with other studies by Villa et al (1996), Hastings and Oakford (2003), and Monsen et al (2014). This finding however contradicts the findings of Leyser and Tappendorf (2001) who reported that there is no other variable closely related to teacher attitudes towards learners with special educational needs than the overall years of teaching experience.

Again, Lambe and Bones (2006) believed teachers with less experience, like pre-service teachers and teachers who had little or no prior interaction with learners with diverse special educational needs, were more optimistic about inclusion than more experienced teachers. Therefore, it is reasonable to assume that participants in this study had previous knowledge of inclusion, and this could explain why the level of education and length of professional service did not affect the teacher attitudes.

It was worth noting the significant difference in the attitudes of subject teachers and classroom teachers, as classroom teachers showed more positive attitudes towards inclusion than subject teachers. This finding is consistent with reports by Saloviita (2020) who found that subject teachers scored the lowest concerning child-centredness and self-efficacy. Classroom teachers spend more time with learners with special educational needs than subject teachers do. They constantly monitor their academic achievements and observe children both in classroom and out-of-class situations, such as during sporting activities. Classroom teachers, therefore, learn about the strengths and weaknesses of children and are constantly looking for ways to improve their performance. It is therefore acceptable for classroom teachers to understand the requirements of learners with special educational needs better than subject teachers do. The development of inclusive teaching and learning methods that respect student differences is essential to inclusion. Regardless of their background or personal characteristics, all educators must create a space where all learners feel supported and included, by valuing and embracing diversity. Additionally, teachers who are knowledgeable about culturally responsive pedagogy can modify their lesson plans to guarantee that all students have access to enriching educational opportunities. However, the current finding differs from the findings of Dukmak (2013) who reports that, in general, all teachers, whether regular, special, or subject teachers, displayed positive attitudes towards inclusion in education.

The average mean score shown in Table 4 above indicates that teachers have a positive view of 20 items at a mean of  $1.85 \pm 0.76$  but disagreed with item 2 ( $1.24 \pm 0.57$ ). The average mean is also higher than the cut-off means ( $1.88 > 1.25$ ). The study, therefore, concluded that educators in special schools and inclusive schools in the central region of Ghana have a positive attitude towards learners with special educational needs.

## CONCLUSION

The assessment of demographic variables affecting teacher attitudes towards learners with special educational needs has increasingly become necessary for modifying inclusive practices in all educational settings in Ghana. Teacher demographic variables can impact the teaching and learning process, especially for learners with special educational needs. On this basis, the authors of the study recommend that teacher training institutions in Ghana can help to demystify biases in teaching such students. The index for inclusion (Booth & Ainscow, 2002) could serve as a good school development guide for schools and educators. Also, training on inclusion should be intensified among pre-service and in-service teachers in Ghana, and the content for training courses should also make room for critical discourse on topics and principles of inclusion and teaching effectiveness. Through in-service training programmes, teachers will be equipped to concentrate on cooperative learning and instructional approaches, knowledge analysis and alternative evaluation strategies for learners with special educational needs. Finally, pre-service training for teachers on the education of learners with special educational needs should begin with a vision of inclusion that stresses that inclusive education does not only contribute to the benefit of students with disabilities but also to the promotion of higher education.

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