

**STUDENT TEACHERS' ATTITUDES AND CONCERNS
ABOUT INCLUSIVE EDUCATION IN GHANA AND BOTSWANA**

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EDUCATION IN GHANA AND BOTSWANA**

Abstract

This study examined student teachers' attitudes and concerns about inclusive education in Ghana and Botswana.

A three-part survey questionnaire consisting of background variables, attitudes, and concerns was completed by 202 students from four teacher training institutions in both countries. One of the institutions was a university and the others were teacher training colleges. Employing descriptive statistics, t-tests and ANOVA the results showed that the student teachers' attitudes were barely positive; they had concerns about inclusive education relating to a number of issues including resources and their responses were influenced by some background variables.

The findings support earlier studies of attitudes and concerns of practicing teachers and provides basis for recommending that more needs to be done in teacher training courses in Ghana and Botswana to enhance student teacher attitudes towards students with disabilities in regular classrooms as well as reduce the existing concerns. Some recommendations are made in relation to improving student teachers' disposition towards inclusive education.

STUDENT TEACHERS' ATTITUDES AND CONCERNS ABOUT INCLUSIVE EDUCATION IN GHANA AND BOTSWANA

Introduction

The governments of Ghana and Botswana since the 1990s have made various attempts at meeting their commitment to the inclusive education goals as enshrined in the Salamanca Declaration of 1994.

In Ghana, apart from the implementing the Community-Based Rehabilitation program which led to the initiation of inclusive education programs in participating districts, some attempts have been made to collaborate with non-governmental organisations to organise inclusive education programs in other districts. In addition, some effort has been made at increasing teachers' knowledge of inclusive education through in-service training programs and new courses in teacher training colleges.

Teacher education in Ghana takes place at two levels: Initial Teacher Training Colleges (ITTCs) and Universities. The ITTCs – numbering 20 – provide training for teachers in primary and Junior High Schools, while Universities provide training to teachers in Senior High Schools. Historically, the ITTCs were part of the second tier of education until 2007 when they were redesignated as tertiary level institutions. They now award a professional Diploma of Education (Teaching) qualification instead of a professional teaching certificate. The University of Cape Coast and University of Education, Winneba provide professional teacher education undergraduate and postgraduate courses.

Prior to the inclusive education initiative under the Community-Based Rehabilitation program, only the Advanced College of Special Education in Mampong-Akwapim delivered courses in special education at an intensive and more specialised level. Many ITTCs provided fairly limited introductory knowledge of special needs education. In 1989, the government introduced special education content into the curriculum of initial teacher programs beginning with an in-service training for 40 tutors drawn from the 20 ITTCs in Ghana. Trainees were required to design new curriculum materials and to deliver such units to their students, beginning in 1990 (Kuyini, 2004). This effort was part of the recommendations of the UNESCO Consultative Committee On Special Needs, which endorsed the concurrent implementation of a CBR and Inclusive education program in 1988. The UNESCO *Teachers' Resource Pack (RP) on Special Needs in the Classroom* was used for the training of the teachers for inclusive education during the initiation phase. The package was also used for the Pilot Action Research Project (PARP); a teacher training program aimed at sustaining the inclusive education knowledge and skills in the ITTCs and schools. The PARP reinforced the incorporation of inclusive education content into the curriculum of initial teacher training colleges in Ghana, beginning 1995 (Kuyini, 2004; Ofori-Addo, Worgbeyi & Tay, 1999). Furthermore university-based teacher education courses at the Universities in Cape Coast and Winneba, increased offerings of special education electives at undergraduate and postgraduate levels.

In Botswana, the government's commitment to inclusive education – defined narrowly here as the process of admitting children with disabilities and special learning needs to the local school, to be educated alongside their local community peers – saw the recent opening of a special education outfit in the office of the president. This follows earlier policy actions on teacher education that led to large numbers of regular education teachers being sponsored to pursue special education courses in various countries and the establishment of the special education unit in the Ministry of Skills and Development in Education (GoB, 1994). Further, The Revised National Policy in Education (RNPE) (1994), which emphasised access to education for the disadvantaged and students with disabilities (Dart, 2007), also

sought to capacitate teachers to implement school reforms such as inclusive education. To this end, the training of teachers for special education received considerable attention. The RNPE policy and programs required that all teacher trainees be exposed to special education and appropriate programs were developed in the Primary and Secondary Colleges of Education. This ensured that Pre-service programs leading to the Diplomas in Primary and Secondary Education included Special Education as a mandatory component. The University of Botswana also began offering a range of Special Education training programs from Diploma to Masters (Hopkin, 2004).

Like in Ghana, teacher education takes place in initial teacher training colleges (Colleges of education) and at the University of Botswana. Two of the colleges of education offer diploma qualifications for secondary teachers, while the other four colleges offer training for primary teachers. Teachers can also enrol in undergraduate and postgraduate courses at the University of Botswana. These programs include post graduate diploma of education (PGDE) program with specializations in specific disability domains such as Learning Disabilities, Mental Retardation (Intellectual), Visual Impairment, etc. These developments, which followed in the heels of the UNESCO agenda for capacity building from the 1990s increased teachers' knowledge and skills for inclusive education. They also influenced the recent inclusive training initiatives under the African Caribbean Pacific (ACP) program in Botswana, Swaziland, Uganda and Kenya.

The teacher training programs in both countries are measures to support effective implementation of inclusive education, as well as counteract negative teacher attitudes and strong concerns about implementing inclusive education.

Literature Review

Several studies show that teachers' and student-teachers' attitudes contribute to the success of inclusion and that positive attitudes are linked to a range of factors including training in special/ inclusive education and experience working with students with disabilities. An international study of four countries by Loreman, Forlin and Sharma (2007) found that factors such as such as close contact with a person with a disability, teaching experience, knowledge of policy and law, and confidence levels had significant impact on student teachers' attitudes.

Many other studies (Bones & Lambe, 2007; Forlin, Loreman, Sharma, & Earle., 2009; Kuyini, 2004; Leatherman & Niemeier 2005) have reported that training in special /inclusive education and experience teaching or relating to students with disabilities have positive impact on attitudes. In addition, such positive attitudes support the potential for more successful inclusive programs or experiences for students (Kuyini & Desai, 2008; Subban & Sharma 2006).

In light of the above, the special / inclusive education training initiatives in Ghana and Botswana were essential, given that apart from local contextual factors, both student teachers and regular classroom teachers have been found to have less positive attitudes towards inclusive education (Alghazo, Dodeen & Algaryouti, 2003; Avramidis, Baylis, & Burden, 2000a, 2000b; Kuyini, 2004) and they also have serious concerns about inclusive education (Alexander, 2001; Forlin, et al., 2009; Sharma & Desai, 2002; Sharma, Forlin, & Loreman, 2007). Such less positive attitudes and strong concerns can impact upon the quality of teacher-student interaction and instructional provisions for students with special needs in inclusive classrooms (Avramidis, et al., 2000a, 2000b; Cook, 2001; Kuyini; 2004; Kuyini & Desai, 2008).

Over a decade ago Gary (1997) argued – on the basis of a literature review – that many regular education teachers who feel unprepared and fearful to teach students with

disabilities in regular classes displayed frustration, anger and negative attitude toward inclusive education. In the last decade, research in several countries shows that many school teachers have limited skills to teach in inclusive classrooms and this coupled with the lack of resources (Alexander, 2001; Avramidis, et al., 2000a, 2000b) often translate into serious concerns on the part of teachers to be engaged in inclusive education settings. For example Kuyini and Desai (2007) found in Ghana that teachers' lack of knowledge and less positive attitudes accounted for limited use of effective instructional practices. David (2007) also found in a study of schools in Tamil, Nadu, India that attitudes accounted for poor social inclusion of students. In addition, Mukhopadyay (2009) and Chhabra, Strivasta and Strivasta (2010) concluded that teacher attitudes and concerns such as lack of training and limited resources in special education act as barriers to successful inclusive education in Botswana.

The majority of studies that have investigated educators' concerns and attitude to inclusive education have focused on teachers in the field (Agbenyega, 2006; Alexander, 2001; Gaad & Khan, 2007; Kuyini, 2004; Mangope, 2002) rather than on student teachers. In fact very few studies on student teachers' attitudes and concerns have been undertaken generally across Africa, or more specifically in Ghana and Botswana. Given that less positive teacher attitudes and high concerns about inclusive education impact upon instructional quality, having an understanding of teachers' attitudes and concerns about inclusive education is important if implementation is to be successful in these countries.

Further, in the situation where teacher attrition is very high in Ghana (Cobbold, 2006) and elsewhere – due to poor service conditions – the drive to implement inclusive education may yet be another influential factor in whether or not student teachers feel comfortable to stay in the profession and whether they provide instruction that supports all students in regular classrooms.

In this regard examining student teachers' concerns and attitude toward inclusive education in Ghana and Botswana is essential in order to ensure that the many training programs that are being rolled out in both countries by donor nations and NGOs address some of these concerns at both the training and policy levels.

Aim of study

The aim of this study was to examine student teachers' attitudes and concerns about inclusive education in Ghana and Botswana as a step towards a subsequent study that would compare the same participants' attitudes, at least two years into their professional practice.

The study follows in the footsteps of Sharma, Ee & Desai (2003), Loreman, et al. (2007) and Sharma, et al. (2007) which compared attitudes and concerns in a number of British Commonwealth countries, including Australia, Hong Kong, and Singapore and Canada. This study compares student teacher attitudes and concerns in two Africa countries (both members of the British Commonwealth), with quite similar educational systems (historically) and post-independence development patterns. Such a comparison will provide a sense of what is happening in some Anglo-phone, sub-Saharan African countries.

Research questions include the following:

1. What attitudes and concerns do student teachers have about inclusive education?
2. Are there any significant differences in the attitudes and concerns of student teachers from Ghana and Botswana?
3. Are there any significant differences in the respondents':
 - a) *Attitudes toward inclusive education due to background variables?*

b) *Concerns about inclusive education due to background variables?*

Method

Participants

A total of 202 student teachers in four teacher training institutions (two universities and two teacher colleges) in Ghana and Botswana participated in the study by completing a three-part survey questionnaire.

There were 128 males (63.4%) and 74 females (36.6%). The majority of the student teachers (n=132, 65%) were below the age of 30. Another 28.7% (n=58) were between 30 and 39 years of age and only 5% (n=10) was above 40 years of age.

The student teachers were engaged in the following courses: BEd Secondary (n= 4, 2%), BEd Primary (n=65, 32.2%), Graduate Diploma (n=13, 6.4%), BEd Special Education (n=32, 15.8%), Undergraduate Diploma (n=86, 42.6%),

The highest educational qualifications of the respondents at the time of the study were as follows: Year 12 or Equivalent (SSS Certificate) (n=42, 20.8%), Undergraduate Diploma, (n=125, 16.9%), Undergraduate Degree, (n=34, 16.8%). Eighty-seven (43%) of the student teachers had taken courses or some training in special/ inclusive education. A large number of the student teachers (n=112, 55.4 %) did not have such training. Almost equal numbers of the respondents had taught students with special needs in either practicum sessions, casual or non-professional teaching roles. Those with such experience were 100 (49.5%) versus 102 (50.5%) who had no such experience.

Instruments

Participants completed a three-part survey questionnaire consisting of background information (Part 1) The Attitudes Toward Inclusive Education Scale (ATIES) (Wilczenski 1992, 1995) and Concerns about Inclusive Education (CIES) (Sharma & Desai 2002).

The ATIES was developed by Wilczenski (1992) and further validated in 1995. It is a 16-item scale that measures participants' attitudes toward inclusive education, where each item is rated on a 6 point-Likert type classification from 1 (strongly disagree) to 6 (strongly agree). Example statements from ATIES are:

- Students who are Shy and withdrawn should be in regular classrooms:
1 2 3 4 5 6
- Students whose speech is difficult to understand should be in regular classes:
1 2 3 4 5 6
- Students who cannot read standard print and need to use Braille should be in regular classes: 1 2 3 4 5 6

A subject's overall attitude rating is evaluated relative to the possible score range of 16 to 96, with higher scores indicating more favourable attitudes. The scale has been used in Ghana (Kuyini, 2004), in India, (Sharma, 2001), and in a cross-country study (Loreman, et al., 2007) and found to be a reliable measure of attitudes toward inclusive education.

The CIES on the other hand was developed by Sharma & Desai (2002) and is a 21-item scale that measures participants' concerns about inclusive education, where each item is rated on a 4-point Likert type classification from 1 (Not at all concerned) to 4 (Extremely concerned) The scale yields a total score of between 21 and 84, where higher scores indicate high concerns about inclusive education. Example items of the CIES are:

- I will not have enough time to plan educational programs for students with disabilities. 1 2 3 4
- It will be difficult to maintain discipline in class. 1 2 3 4
- I do not have knowledge and skills required to teach students with disabilities
1 2 3 4

The scale has been used in India, (Sharma, 2001) and in a cross-country research (Sharma, et al., 2007) and found to be a reliable measure.

Data collection and Analysis

The questionnaires were distributed to participants who signed consent forms and collected personally by the researchers or research-assistants on the day or some days later. Of the 250 questionnaires sent out 209 were returned and corresponds to a response rate of 83.6%. Seven of the 209 had missing information in many areas and could not be included in the data set for analysis. The total number of questionnaires analysed was therefore 202, comprising 115 respondents from Ghana and 87 respondents from Botswana.

Reliability and factor analyses were undertaken for both the ATIES and CIES scales. The reliability analysis of the ATIES showed an Alpha coefficient of 0.71, which is similar to the value of 0.73 obtained with practising teachers in study by Kuyini (2004) in Ghana. The factor analysis generated 5 factors, which differs from the four-factor found by Wilzenski (1992, 1995) and Sharma (2001), but similar to Kuyini (2004) in Ghana. The factors were labelled as: Factor 1 (Sensory), Factor 2 (Behaviour), Factor 3 (Social), Factor 4 (Academic) and Factor 5 (High needs) (See Table 1). The reliability analyses for the factors showed Alpha Coefficients of .623 (Factor 1), .667 (Factor 2), .667 (Factor 2), .455 (Factor 3), .490 (Factor 4), and .411 (Factor 5).

Table 1: ATIES Factors

	Component				
	1	2	3	4	5
Students who cannot read standard print	.764				
Students who use sign language	.730				
Students who cannot hear conversational speech	.720				
Students with speech problems	.633				
Students who do not follow school rules		.726			
Students with uncontrollable and disrupt behaviour		.677			
Students who are frequently absent from school		.640			
Students who are verbally aggressive		.524			
Students who are physically aggressive		.508			
Students who have expressive language problems			.765		
Students who are shy and withdrawn			.723		
Students who need individualized functional academic programs			.406		
Students whose academic performance is 2 or more years below others				.841	
Students whose academic performance is 1 year below others				.532	
Students who need help in daily living and self help skills					.721
Students who cannot move without help					.336

Extraction Method: Principal Component Analysis; Varimax with Kaiser Normalization

The reliability analysis of the CIES scale showed an alpha coefficient of 0.73, suggesting that it was reliable scale to be used for further analysis. This alpha figure compares favourably with that of Sharma and Desai (2002) which had an alpha of 0.91 and Sharma, et al. (2007) of 0.92.

The factor analysis generated six factors, which differs from the findings of the validation study (Sharma & Desai, 2001) and Sharma et al. (2007) both of which yielded four factors. The factors were labelled as: Resources (Factor1), Welfare and Workload (Factor2), Academic (Factor3), Acceptance (Factor 4), Support (Factor5) and Coping (Factor6) (See Table 2). The reliability analyses for the factors showed Alpha Coefficients of .676 (Factor 1), .695 (factor 2), .639 (Factor 3), .667 (factor 4), .506 (factor 5) and .635 (Factor 6).

Table 2: CIES Factors

Concerns Factors						
Concerns factor solution: Rotated Component Matrix ^a						
	Component					
	1	2	3	4	5	6
Concerns about accommodation of different types of disabilities	.781					
Concerns about resources	.762					
Concerns about instructional materials	.671					
Concerns about administrative support	.493					
Concerns about the effects on other teachers		.726				
Concerns about workload		.611				
Concerns about one's feelings		.605				
Concerns about feelings of other teachers		.588				
Concerns about students' discipline		.377				
Concerns about academic standard of school			.656			
Concerns about performance of teachers			.630			
Concerns about academic performance of students without disabilities			.559			
Concerns about knowledge and skills			.505			
Concerns about acceptance of students with disabilities by peers				.750		
Concerns about parents of students without disabilities				.703		
Concerns about equal attention to students					.788	
Concerns about funds					.634	
Concerns about para-professionals					.439	
Concerns about incentives						.685
Concerns about time						.675
Concerns about severity of disability						.570

Extraction Method: Principal Component Analysis; Varimax with Kaiser Normalization.

Data Analysis

The quantitative data were analysed using the SPSS software. Apart from reliability and factor analyses, descriptive statistics, t-tests and ANOVA were employed to compare respondents' background variables with the attitudes and concerns data.

Results

The results are presented in line with the three research questions below:

1. What attitudes and concerns do student teachers have about inclusive education?

2. Are there any significant differences in the attitudes and concerns of student teachers from Ghana and Botswana?
3. Are there any significant differences in the respondents':
 - a) Attitudes toward inclusive education due to background variables?
 - b) Concerns about inclusive education due to background variables?

Nature of student teachers' attitudes and concerns about inclusive education

The analyses of the ATIES responses found that the total sample (all respondents) mean score of 58.85 out of a possible score of 96 on the ATIES implied that the respondents had low attitudes towards inclusive education. However, variations among respondents from the two countries were to be expected due to differences in their contextual experiences of inclusive education. Thus when the ATIES Factors were analysed, it showed that student teachers had more positive attitudes towards students loaded on the social factor, followed by the behavioural factor. Correspondingly, they had less positive attitudes towards students on the sensory factor (See Table 3).

Table 3: Mean scores on ATIES Factors

Factor	N	Mean	SD
ATIES Social factor 3	202	4.36	.96
ATIES_Behav Factor 2	202	3.87	.98
ATIES Academic Factor 4	202	3.77	1.19
ATIES High Needs Factor 4	202	3.75	1.09
ATIES_Sensory Factor 1	202	2.83	1.72

A Paired Sample t-test also showed that the Social factor had the highest mean score.

A separate analysis of the factor responses from Ghana and Botswana found that students from both countries held more positive attitudes towards students on the Social factor. The mean scores were 4.40 for respondents from Ghana and 4.14 for those from Botswana. They also held relatively more negative attitudes towards students on the sensory factor, with Mean scores, 3.04 and 2.56 for Ghana and Botswana respectively (See Table 4).
Table 4: Mean ATIES Factor scores for Ghana and Botswana.

Factors	Mean (SD)	Mean (SD)
	Ghana	Botswana
Social Factor (3)	4.40 (1.05)	4.31 (.82)
Behaviour Factor (2)	3.67 (1.00)	4.14 (.89)
Academic (4)	3.88 (1.08)	3.63 (1.04)
High Needs Factor (5)	3.80 (1.08)	3.67 (1.12)
Sensory Factor (1)	3.04 (1.23)	2.56 (1.05)

The ATIES items with the highest (more positive) scores for all respondents were: students who are shy and withdrawn ($M=4.89$, $SD=1.237$), Students who have expressive language problems ($M=4.30$, $SD=1.369$). These items were loaded onto the social factor. A separate analysis of the item responses from Ghana and Botswana found that the ATIES items, which load onto the social factor, were highly rated in both countries. And similarly ATIES items which attracted more negative attitudes and loaded onto the Sensory factor (students who use sign language, students with hearing impairment, students who need to use Braille, were rated very low in both countries.

In terms of concerns about inclusive education, the results of the mean scores on the CIES Factors showed that student teachers from both countries had higher concerns about Welfare and Workload (Factor 2) and Resources (Factor1). The lowest concern factors were Factor 3 (Academic) and Factor 4 (Acceptance) (See Table 5). The paired sample t-test also showed similar results. This finding mirrored the results of the analysis of individual items, where issues of Enough Time, Instructional materials, Knowledge and skills, Inadequate para-professionals and other resources were rated high. On the other hand the three items with lowest concern scores in both Ghana and Botswana related to Concerns about Incentives, Personal Stress and other staff members' stress, which loaded onto factors 3 and 4. This suggested that student teacher were more concerned about workload and resources.

Table 5: Means scores on CIES Factors for Ghana and Botswana respondents

	Mean (SD) Ghana	Mean (SD) Botswana
Welfare & Workload (Fac.2)	3.25 (3.0)	3.02 (3.39)
Resources (Fac.1)	2.97 (2.8)	2.72 (2.79)
Support Factor 5	2.25 (2.0)	2.07 (2.19)
Coping Factor 6	2.1 (1.6)	1.70 (2.35)
Academic Factor 3	1.7 (1.7)	1.22 (1.86)
Acceptance (Factor 4)	1.7 (1.7)	1.22 (1.86)

Differences between Ghana and Botswana student teachers on ATIES and CIES

In order to answer the question of whether or not there were any significant differences in the attitudes and concerns of student teachers from Ghana and Botswana, Independent Sample t-tests were computed.

The result for attitudes (Tables 6) showed that there was a statistically difference at the $p < .05$ level between the respondents from Ghana ($M = 59.8$, $SD = 7.4$) and those from Botswana ($M = 54.7$, $SD = 13.1$). Student teachers from Ghana held relatively more positive attitudes toward inclusive education.

Table 6: t-Test of ATIES scores for student teachers from Ghana and Botswana

Institution	Mean	SD	"t"	(p)
Ghana	59.8	7.43	-3.22	.002*
Botswana	54.7	13.15		

The results for the concerns responses (Table 7) showed that there was a statistically significant difference at the $p < .05$ level between the responses from Botswana ($M = 54.9$, $SD = 9.72$) and those from Ghana ($M = 59.7$, $SD = 6.96$). Respondents from Ghana reported higher levels of concerns than those in Botswana.

Table 7: t-Test of CIES scores for student teachers from Ghana and Botswana

Institution	Mean	SD	"t"	(p)
Ghana	59.7	6.96	4.06	.00*
Botswana	54.9	9.72		

Background variables' influence on ATIES and CIES

In order to answer the sub-question "Are there any significant differences in the respondents' attitudes about inclusive education due to background variables?" t-tests and One-way between groups ANOVA were carried out.

Apart from the training in special /inclusive education variable, there were no significant differences in ATIES scores between the groups due to variables such as Gender, experience teaching students with special needs, highest educational qualification and type of course respondents were studying at the time.

The results showed a significant difference in the mean scores of those who had training special /inclusive education and those who had no such training.

Table 8: t-Test of ATIES scores for training in special/inclusive education

Training	Mean	SD	"t"	(p)
No	57.2	10.1	2.79	.01*
Yes	61.3	10.6		

In order to answer the sub-question "Are there any significant differences in the respondents' concerns about inclusive education due to background variables?" t-tests and a One-way Between Groups ANOVA were carried out.

Apart from the variables of Gender and type of course pursued, there were no significant differences in CIES scores between the groups due to variables such as Training in special /inclusive education, Experience teaching students with special needs, Highest educational qualification and Age.

The t-tests showed a significant difference in the mean scores at the $p < .05$ level on CIES between males and females

Table 9: t-Test of CIES scores for student teachers with training and those without training in special/inclusive education

Gender	Mean	SD	"t"	(p)
Male	56.0	8.63	3.53	.00*
Female	60.4	7.79		

The One-way Between Groups ANOVA analysis for the type of course variable revealed that the school variable, divided into BEd Secondary (Group 1), BEd Primary (Group 2), Graduate Diploma (Group 3), BEd Special Education (Group 4), and Undergraduate Diploma (Group 5), showed statistical significant differences at the $p < .05$ level on CIES scores among the five groups [$F(4, 193) = 5.256, p = .00$] as indicated in Table 10a. The Tukey HSD post hoc tests (Table 10b) showed significant difference between groups 2 (BEd Primary) and 5 (Undergraduate Diploma) ($M_2 = 59.2$ and $M_5 = 54.7$). And also between group 4 (BEd Special Education) and group 5 (Undergraduate Diploma) ($M_4 = 61.3$ and $M_5 = 54.7$).

Table 10a: ANOVA of CIES scores for respondents' and type of course pursued

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1418.892	4	354.723	5.256	.000
Within Groups	13025.472	193	67.489		
Total	14444.364	197			

Table 10b: Post Hoc Tests

(I) Current study	(J) Current study	Mean Difference (I-J)	Std. Error	Sig.
Undergraduate Diploma	BEd Secondary	.74118	4.20314	1.000
	BEd Primary	-4.48959*	1.35362	.010
	Graduate Diploma	-5.41267	2.44653	.180
	BEd Special Education	-6.51689*	1.72368	.002*

Discussion

This study was intended to contribute to understanding of student teachers' attitudes and concerns about inclusive education, as they prepare to enter the teaching profession and to provide research information that may assist the governments of Ghana and Botswana to put in place supportive mechanisms as they progressively roll out their inclusive education agendas.

In this discussion, we take the line adopted by Sharma, et al (2007) who commented that in a study of this nature the use of purposeful sampling of respondents from different countries makes it reasonable to be cautious in interpreting the results, since generalisability becomes an issue to contend with. Thus, the results of this study need to be interpreted with care because of the limitations deriving from the differences in respondents' experiences and contextual realities, which means that the views expressed by these participants may not reflect those of the entire population.

The results of the study showed that student teachers from Ghana had relatively more positive attitudes towards inclusive education than their counterparts in Botswana. In both countries, student teachers held more positive attitudes towards students on the Social Factor, which included students who are shy and withdrawn and those who have expressive language problems. On the other hand they held less positive attitudes toward students on the Sensory Factor. Items on the Sensory Factor included items relating to students who need to use Braille and those with hearing and speech problems. This result may reflect the participants' lack of skills to support students with sensory disabilities. This is more the case because many courses in Ghana for instance have more theoretical content around types of disability and support strategies, but limited practical component. Loreman, et al., (2007) who reported a similar finding in their four-country study – that student teachers were more positive towards students on the Social Factor – observed that "... issues such as shyness, which loaded on the social factor would rarely require immediate intervention and large amounts of extra time and effort on the part of the teacher in the same way that (students with severe) behaviours would..." (p.1). Similarly, in this study student teachers may find those on the social factor easier to include than those requiring specific skills such as the use of Braille and sign language.

The study further found that the only background variable of the respondents that significantly impacted on attitudes was training in special /inclusive education. This echoes other studies (Loreman, et al, 2007; Subban & Sharma, 2006) who found that other variables

also influenced attitudes. In this study the analysis of the data for the entire sample showed a significant difference in the mean scores of those who had training in special / inclusive education and those who did not. However, when the two sets of data were tested separately, there was significant difference in the mean scores as function of training for respondents from Ghana but not for those from Botswana. The positive role of training in facilitating positive attitudes found here is mirrored in the findings of Kuyini & Desai, (2006, 2007) in Ghana, Mukhopadyay, (2009) in Botswana and Johnstone and Chapman (2009) in Lesotho. However, the absence of a significant relation between training and attitudes in Botswana may be due to the other factors of concern to the respondents, such as resources, which was unearthed in their responses to the concerns about inclusive education survey.

As has been noted earlier, the student teachers from Ghana were more concerned about the inclusion of students with disabilities into regular classrooms than those from Botswana. This conclusion was evident in two levels of analyses involving total scores on the concerns scale and the six factors of the CIES scale.

Although Sharma, et al. (2007) concluded that experience with inclusive education was responsible for less concerns among student teachers in Australia and Canada, it is perhaps the opposite in the case of Ghana. That is, the realities of inclusive classrooms in Ghana (including the lack of resources) as reported by personnel in the education system, the media as well as perhaps personal experiences of the respondents could explain the higher concern ratings in Ghana. In this study, it would also be reasonable to argue that large class-sizes may also explain the higher concerns in Ghana. Average class sizes are bigger in Ghana (average of 45-60 students) than in Botswana (40-45 students) and this could account for far higher concerns, which is mirrored in the fact that item 18 (Concerns about giving equal attention to all students) was among items that received the highest concern rating among respondents from Ghana.

The slightly low concerns about inclusive education among the student teachers from Botswana could be due to the fact that student teachers in Botswana are more confident because they have the opportunity to specialise in specific disability areas, while many of their counterparts in Ghana receive more generic special education training. This interpretation could be derived from the types of concerns about inclusive education reported by student teachers in the two countries. Although respondents from both countries had concerns about time, instructional materials and other resources, there was some glaring difference in respect of other CIES items. This difference could be described as a case of *personal concerns* in Ghana versus *systemic concerns* in Botswana. That is, while Ghanaian respondents were – among others – worried about their own knowledge and skills and how that would translate into their capacity to give equal attention to all students, their counterparts in Botswana de-emphasised personal knowledge and skills and concentrated more on instructional materials, para-professionals, and other infrastructure. This goes to buttress the point made earlier that the seemingly lower concerns among student teachers in Botswana may be due to the nature / content of their teacher education program. This finding is similar to that of Chhabra, et al., (2010), who studied regular teachers in Botswana. According to Chhabra, et al, (2010), teachers in Botswana showed concern about inadequate equipment and availability of paraprofessionals, additionally they raised concerns about provision of resources and funding to support the students with disabilities in regular classrooms. It is also similar to Johnstone and Chapman, (2009), study in neighbouring Lesotho where teachers noted the lack of time and materials as hindrances to implementing inclusive education.

These findings do not only add weight to the reality that resources are part of the frequently expressed concerns in regard to inclusive education, but more importantly, they draw attention to the question of whether systemic responses alone can effectively support inclusive education. It is clear from past research and this one that teachers' personal knowledge and skills are important since they play a crucial role in instructional delivery (Avramidis, et al, 2000; Kuyini & Desai, 2008).

Finally, the study found that respondents' gender and type of course pursued influenced their scores on the CIES. This result with respect to gender may be due to chance as there is no plausible reason for such a difference. The analysis for the type of course variable revealed that the variable showed statistical significant difference at the $p < .05$ level on CIES scores between students studying BEd Primary and those studying Undergraduate Diploma and also between those studying BEd Special Education and Undergraduate Diploma. This may not be surprising because the university level courses especially the Special Education courses are more likely to provide greater details about inclusive education thereby providing students with adequate knowledge about the requirements and demands on teachers. Such a situation may increase the respondents' concerns about inclusive education. The findings imply that teacher trainees are not generally positive about inclusive education and have some reasonable concerns which the governments of Ghana and Botswana would need to address.

Recommendations

Against the background of these findings, it is recommended that:

1. Teacher training institutions emphasise teaching skills that would enhance teacher trainees' capacities to support students with disabilities in inclusive classrooms, as well as expose them to practicum experiences that involve such students. The University of Education in Winneba, Ghana is already trialling this method. At the same time Loreman, et al. (2007) suggestion that "...teacher training institutions should consider for inclusion in their programs practical experiences with inclusive education in positive and supportive environments..." (p.1) is worth considering in Ghana and Botswana.
2. The Ministries of Education in both countries need to support training for inclusive education at in-service levels beyond the one-day training regime that is now the dominant mode of professional development in most developing countries. This will lead to increase teacher knowledge and skills about inclusive education, which in turn feeds into building more positive attitudes. The recent national in-service training in Botswana championed by EDULINK and sponsored under ACP-EU Cooperation Programme in Higher Education needs to be sustained and provided at least bi-annually to create linkages between experiences of teachers in the field and new teachers who join the service over. It will also be important that such future training programs in Botswana include different staff from the over 300 School Intervention Teams (SITs) supporting the learning of students with special needs in schools. This is essential as a way of developing better multi-disciplinary collaboration around inclusive education implementation in Botswana. In Ghana, broad initiatives are required because the knowledge gained from short training programs since 1990s have not delivered the required level of skills for inclusive education due to high rates of teacher attrition.
3. some reasonable levels of resource provision are achieved for all schools implementing inclusive education to the support teachers in the classrooms and

thereby reduce the high concerns about inclusive education associated with lack of resources

Conclusion

This study examined the attitudes and concerns of student teachers regarding inclusive education in Ghana and Botswana. In spite of some differences in their contextual realities, respondents held similar attitudes towards inclusion and had similar concerns about inclusive education. The study findings lead to recommendation that teacher training institutions emphasise teaching skills that would enhance teacher trainee's capacity to support students with disabilities in inclusive classroom. At the same time the Ministries of education in both countries would need to support training for inclusion at in-service levels beyond the one-day training regimes, as well as ensure that some reasonable levels of resource provision is achieved for all schools implementing inclusive education to support teachers.

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