

# Botswana PGDE Student Teachers' Attitude towards Inclusive Education: Implication for Teacher Education

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Received: May 8, 2013; accepted: Oct 8, 2013

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## Abstract

The purpose of this exploratory mixed methods study was to investigate perceptions of Post Graduate Diploma in Education (PGDE) student-teachers of the University of Botswana towards inclusion of learners with Special Educational Needs (SENs) in regular schools. We were also interested in a) the level of preparation and confidence associated with inclusion of learners with SENs in regular secondary schools in Botswana and (b) the effectiveness of an introductory awareness course in preparing PGDE students in including learners with SENs, c) suggestions for improving the course. Data were collected using self-administered questionnaire that contained both Likert scale and open ended questions. Forty-seven out of 50 PGDE student teachers participated in this research and completed a questionnaire at the beginning and at the end of an introductory course on special education. Both descriptive and inferential statistics were carried-out to find the differences in their beliefs towards inclusion of learners with SENs in the regular classrooms. Findings indicated that there was a significant difference in the students' attitudinal scores towards inclusion of learners with SENs between pre-and post-teaching.

**Key Words:** Inclusive education, special educational needs, teacher preparation, mixed method research

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## Introduction

In 2011, Government of Botswana developed the Inclusive Education Policy to enhance access to education for all learners and to create barrier free educational environments to meet the unique individual needs of diverse learners (Government of Botswana, 2011). As the Government of Botswana implements this policy, it is expected that the number of learners with SENs in general education classrooms will increase. As a result, classrooms are going to become more diverse than before and teachers in mainstream schools would be required to teach learners with diverse educational needs. Unfortunately, it is argued that Botswana teachers do not possess adequate skills and attitude for including learners with SENs (Mukhopadhyay, 2012). This has serious implications, a) as schools may use this as an excuse not to include learners with SENs and push these learners to

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segregated environments (Jordan, Schwartz, & McGhie-Richmond, 2009), b) the quality of teaching and learning might be seriously compromised. Researchers (Kuinyi & Mangope, 2011; Dart, 2006; Mbengwa, 2010; Mukhopadhyay, Molosiwa, & Moswela, 2009) also reported that current teacher education programmes are failing to adequately prepare teachers both regular and special education teachers for inclusive classrooms in Botswana. Therefore, inclusive education is perceived as a problem than a solution. At the same time, the Government of Botswana has identified the Inclusive Education Policy as a key strategy to enhance access for all learners and achieve its mandate of ten years of basic education (Government of Botswana, 2011, 1994). In order to implement this policy we need teachers who are trained in the area of inclusive education. This study therefore, seeks to establish the extent to which prospective teachers, through their PGDE (teacher education) programmes, are enabled to develop inclusive attitudes, values and practices.

### *Inclusive Education: The Context of Botswana*

Inclusive education is based on the premise that every child has a right to quality education, irrespective of his/her differences or disabilities. It is about espousing educational values of equity, diversity and social justice. Although inclusive education was initiated in Western Countries it is now a matter of global agenda (Pijl, & Meijer, 1997).

Botswana being one of the signatories to various international frameworks is equally committed to providing access to education for all learners. Due to a healthier economy and good governance, Botswana had achieved significantly in terms of providing access to education. However, approximately 13% of learners dropped out of primary schools in Botswana (Encyclopaedia of the Nations, 2005) and a significant proportion of this group are learners with SENs (McBride, 2010). In order to address this gap and be in alignment with the global trend, a comprehensive policy document on Inclusive Education has been launched (Government of Botswana, 2011). The goals of the policy are:

- All learners will complete their basic education and progresses where possible to senior secondary or tertiary education or to vocational training.
- Teachers will have the skills and resources to enable children of different abilities to learn effectively.
- Out of school education programmes will be further developed and strengthened to ensure the inclusion in education and skills development of those children, young people and adults whose needs cannot be met in the formal system.
- Schools will be supportive and humane establishments which embrace and support all their learners and value their achievements, so that children will attend school regularly and work hard at their studies.
- All relevant Governmental, Non-governmental and private organisations will work in harmony to develop and maintain an inclusive education system in Botswana. (Government of Botswana, 2011, p.5)

It is hoped that with the implementation of this policy a large number of learners will be included in regular schools. The goal 2 of the current policy stresses that teachers need to have adequate knowledge, skills and attitude to cater for these learners. Therefore, pre-service teacher preparation programmes need to align with the country's need.

### *Pre-service Teacher Preparation*

It is well accepted in the literature that teachers play an important role in the process of teaching and learning. Teachers' beliefs towards including learners with SEN in the regular schools are crucial for successful implementation of inclusive education. Their knowledge, skills and attitudes can either facilitate or hinder the implementation process (Mukhopadhyay, 2012). Therefore, training institutions should make sure that pre-service teachers are competent to cater for the needs of large

numbers of diverse learners. This move has been supported by UNESCO (UNESCO, 2009). As a result, the initial teacher training programmes have to undergo a major pedagogical shift.

Studies (Lancaster & Bain, 2010; Purdue, Gordon-Burns, Gunn, Madden, Surtees, 2009) have also reported that pre-service courses in special education or inclusive education have the potentials to positively influence the beliefs of pre-service teachers. Therefore, teacher education programmes need to undergo complete reform to cater for learners with SENs in regular classes. It is therefore important for a teacher training institution to be responsive to the current movement of inclusive education and prepare teachers for inclusive classrooms (Forlin, Loreman, Sharma, & Earle, 2009). Although studies have demonstrated positive effects of pre-service courses, they are not free from criticism. Boe, Shin, and Cook (2007), argued that these courses overemphasise on knowledge acquisition instead of equipping them with the practical skills required for teaching learners with diverse educational needs in an inclusive classroom. These issues raise serious concerns whether introductory courses prepare teachers adequately (Forlin, et al. 2009; Pugach & Blanton, 2009). Furthermore, many researchers have expressed concerns about the inadequacies of resources in many countries [especially in the developing countries], (Obeng, 2007; Chireshe, 2011; Pottas, 2005). Their main concern is the fact that these programmes have continued with a categorical teacher training model. As Kisanji (1993) explains, this model emphasises ‘specialist teachers’ and ‘specialist placement’ clearly do not favour inclusive practice in Botswana (Kisanji, 1993). Additionally, the limited exposure to learners with SENs and the gap between preparation and practice for inclusive education has created a serious dilemma. For example, Khoele (2008) in her study explored the dilemmas teachers were faced with in South Africa in implementing inclusive education and cautioned that significant attention needs to be directed to the ongoing staff development of educators focusing on practical/common understanding of identifying learners with SENs and how to deal with challenges in a classroom. Since teachers are faced with the challenges of teaching learners from diverse backgrounds and different learning needs, Thomas and Vaughan (2004, p. 79) argued that “ the preliminary requirement for most ordinary teachers is not necessarily that they receive specialist training, but that they are given an increased opportunity to develop their skills with children with special needs within ordinary classrooms.”

Forlin et al. (2009) studied 603 pre-service teachers’ attitudes, sentiments, and concerns about inclusive education in teacher preparation programs in four countries: Australia, Canada, Hong Kong, and Singapore. The findings of their study revealed that previous involvement and contact with learners with SENs resulted in more positive attitudes and minimised levels of concern. The need for positive attitudes has been emphasised by other researchers. For example Sharma et al (2006) underscored that positive attitudes need to be fostered through both training and positive experiences with learners with SENs. Such issues should be addressed during the pre-service training (Mukhopadhyay & Molosiwa, 2010).

It is important to note that, requirements for pre-service coursework is not universal and varies from institution to institution as well as from country to country. For example, in Zimbabwe, general education teacher training courses were constructed to make them compatible with inclusive education and by including special education content and practice in teacher training (Peresuh, 2000). Therefore, this preliminary study was initiated to explore the effectiveness of this programme in changing beliefs of pre-service teachers towards inclusion of learners with SENs in the regular schools. In addition, deeper understandings of pre-service teachers’ beliefs are important for teacher educators to provide appropriate experiences that will in turn facilitate the implementation of inclusive education in Botswana. The following section describes the teacher preparation in Botswana.

### *Teacher Preparation in Botswana*

Although from the very first education policy of Botswana, the importance of teacher competencies has been stressed but has not been implemented adequately. The 1st education policy recommended that teacher training curriculum should enable teachers to operate along the national principles (Education for Kagisano, 1977). The Revised National Policy on Education also recommended that all teachers should have some elements of special education in their pre-service or in-service training and those who have not received such training during their pre-service courses should receive it during in-service training (RNPE, 1994). This recommendation was highly appropriate in the context of

Botswana. RNPE recommended special education teacher training to cater the needs for learners with disabilities, at the same time, RNPE (95b) recommended a broad-based special education programme rather than focusing on a single disability (RNPE, 1994). Despite, these recommendations, special education programmes are oriented towards disability and little emphasis is given to other disadvantaged students.

Botswana trains teachers at two levels a) diploma, b) degree. Apart from the University of Botswana and five Teacher Training Colleges of Education that prepare teachers for both primary and secondary levels. The three colleges offer a three years Diploma in Primary Education (DPE), while the other two colleges offer three years Diploma in Secondary Education (DSE). It is a two track model for preparing teachers; one for preparation of special educators and the other is preparation of regular educators. Currently only University of Botswana offers Degree in Special Education. It is a four year double major programme, which means that students take special education courses along with a teaching subject. The University of Botswana offers specialization in four areas: intellectual disability, learning disability, visual impairment and hearing impairment. Both Degree and Diploma in Education programme that prepares teachers for general education classrooms offer an introductory course in special education.

Mbengwa (2010) investigated the effectiveness of secondary education teacher training at Botswana colleges in preparing teachers who can effectively support learners in inclusive classrooms. She explored the perceptions of 225 graduates from the two secondary colleges of education (Molepolole and Tonota). The findings of the study indicated that 63% of the participants valued their education and felt that the Special Education course was useful in preparing teachers for inclusive classrooms. Furthermore, on the issue of effectiveness of the course 50% of the participants were of the opinion that the Special Education course at colleges were 'eye-openers' and adequately prepared them with the basic knowledge and skills to manage learners with diverse learning needs such as identification, modification, preparation of learning material, referral, preparation of an Individual Educational Plan on how to support learners experiencing barriers to learning and development in inclusive settings. These courses are disability specific rather than inclusive oriented (Mbengwa 2010).

Dart (2006) explored the perceptions of 59 first year students at Molepolole College of Education about individuals with disabilities. The findings of the study indicated that initially a large number of the students had negative attitudes toward disabilities, which turned into the positive attitude after attending an introductory course. In a recent study, Kuyini and Mangope, (2011) compared the Botswana and Ghana pre-service student-teachers attitude and concerns towards inclusive education. The findings of the study revealed that Botswana student teachers had unfavourable attitudes towards disabilities and their attitude towards learners with sensory disabilities were lowest compared to learners with speech and language problems. The student teachers in that study were concerned about lack of time, inadequate instructional materials, lack of knowledge and skills, shortage of para-professionals. The findings of these studies seem to suggest that the initial teacher training programme in Botswana did not adequately prepare student teachers for inclusive classroom, which contradicts the findings of Mbengwe (2010).

Mukhopadhyay and Molosiwa (2010) investigated PGDE students attitude towards disability and found that students tend to have unfavourable attitudes towards learners with disabilities. They have also argued that curriculum for a PGDE programme at University of Botswana are generally packed with mostly introductory courses and focuses on theories of pedagogy rather than developing skills to manage learners with SENs in regular classrooms and creating a positive attitude. Therefore they suggested that apart from enhancing knowledge and skills, teacher education programmes should equally focus on creating favourable attitudes towards students with SEN before they get to the real classroom. And one way could be more interactions with learners with SENs.

The current policy on inclusive education recommended that teacher education programmes should be reviewed and redirected more toward inclusion. Keeping this in mind, this study was initiated to find whether teacher's attitude towards learners with SENs is paramount for integrating them into inclusive environments. Negative attitudes towards persons with SENs serve as barriers to learning for these learners (Hergentrater & Rhodes 2007). Positive attitude towards inclusive education is crucial amongst educators. Their positive attitudes toward learners with SENs, knowledge and skills have the potential to facilitate inclusive practices (Mukhopadhyay, 2012).

Furthermore, the limited exposure to learners with SENs and the gap between preparation and practice of inclusive education has created a serious dilemma. Therefore, this preliminary study was initiated to explore the effectiveness of this programme in changing beliefs of pre-service teachers towards inclusion of learners with SENs in the regular schools. In addition, deeper understandings of pre-service teachers' beliefs are important for teacher educators to provide appropriate experiences that will in turn facilitate the implementation of inclusive education in Botswana.

### *The Purpose of Research and Research Questions*

The purpose of this study was to examine the relation of student teachers' beliefs, attitude and preparedness about the inclusion of learners with SENs in secondary schools in Botswana. It was reasonable to consider that student teacher beliefs, in order to implement inclusive education policy in Botswana teachers need to buy-in the idea and their skills and knowledge in teaching learners with diverse educational needs combined with their existing knowledge of content and pedagogy are important. Consequently our research questions focused on teacher beliefs, attitudes and preparedness of inclusion of learners with SENs in regular secondary schools in Botswana. We were specifically interested in how and to what extent teachers' (a) beliefs about inclusion of learners with SENs, and b) their preparedness of teaching learners with SENs, and c) to what extent do student teachers' views change after completion of the introductory course in Special Education.

## **Method**

### *Research Setting*

This research was conducted at the University of Botswana. Post Graduate Diploma in Education (PGDE) students were recruited for this research. PGDE is a two semester's pre-service initial teacher training programme prepares pre-service teachers to teach in regular education classrooms at secondary school level. Approximately 125 candidates usually join the programme annually. In order to graduate, it is mandatory for these students to take a course in special education. Students are divided into groups and offered the programme in both semesters.

### *Research Design*

An exploratory mixed methods research design (Creswell & Plano Clark, Garrett, 2007) was utilized to explore students-teachers beliefs, attitude and level of preparedness about the inclusion of learners with SENs in regular schools. Although survey methods have several weaknesses, we used the field survey research method because we were interested in obtaining information from all PGDE students at one go.

### *Participants*

The study was based on the responses of PGDE student teachers who were taking a special education course taught by one of the researchers at the University of Botswana. The course had 50 students (population), but 47 (94%) of them completed both the pre- and post-course questionnaires. All the participants voluntarily participated in the research. All the participants use English as their second language.

### *Instrumentation*

A three part self-report instrument was used in data collection. Part one (8 items) of the instrument was designed by the researchers to obtain demographic backgrounds of the participants. Part-two (16 items) was a 5 point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) and the negatively stated statements were coded in reverse fashion ("1" = strongly agree; "5" = strongly disagree) that measured attitudes towards inclusive education. The higher the score indicated

favourable attitudes while the lower the score indicated unfavourable attitudes. The items in this section of the instrument were adapted from Student Teachers' Beliefs and Attitudes Towards Inclusive Education and Practice scale developed by Beacham and Rouse (2012). Some of the items of the original scale were slightly modified to suit the context of the present study. The original scale consisted of 15 statements and one more item; "Do you think inclusive education will be successful in Botswana" was added. In the adapted scale 'learners with SENs' was used rather than children /students with disabilities. The questionnaire was piloted. Based on the pilot data this sub-scale had a Cronbach's alpha reliability coefficient of .71. The third part included three open ended questions.

### *Procedure*

We chose PGDE students to complete the above questionnaires during the first tutorial for a core unit on Introduction to Special Education. During the 14 week semester, students were provided with formal instruction (a 2 hour lecture) on special education. Throughout the study of special education processes, the unit incorporated a strong focus on individual differences and inclusive education, and provided specific information about characteristics and educational implication and strategies for helping students with disabilities in the regular education classrooms. Answers to questionnaire items were never directly discussed in class. Students were not asked to reflect on responses to the other area and at no point was information on the structure and interpretation of this scale given to students. In the last tutorial for the subject, at the end of a 14 week semester, students were asked to complete the same questionnaires for the second time. This was completely separate from any assessment work, and students were assured it would not be marked and would have no bearing on their grades.

### *Data Analysis*

Data were analysed using descriptive and inferential statistics. Descriptive statistics included the frequencies, percentages, mean, standard deviation, and ranks. The paired sample t-test conducted to evaluate the impact of an introductory course on the student's scores on Student Teachers' Beliefs and Attitudes towards Inclusive Education and Practice at the beginning and at the end of the course. And the open-ended questions were analysed thematically.

## **Results**

### *Demographic Information*

A total of 47 matched pairs of questionnaires were obtained from students who attended both the first and last tutorials were used for analysis. The female students represented 79% (n = 37) of the sample and the male constituted 21% (n = 10) of the participants. Most of the students belonged to the age group between 25-30 years. As the majority of students join the programme immediately after completing the undergraduate programmes and it is not surprising to see that the vast majority of the students were less than 30 years old.

### *Contact with Individuals with SENs*

Approximately half of the participants (47%, n=22) had interacted with learners with SENs before they took this course, whereas 53 % (n = 25) of the participants reported that they never initiated any contact with learners with SENs at the beginning. However, information gathered at the end of the semester indicated that 90% of the participants initiated to interact with learners with SENs. This means that, the students usually do not initiate interacting with learners with SENs unless it is mandatory for the part of the course. This information should be taken seriously, and the course should be designed in such a way that PGDE students are exposed more to interacting with learners with SENs.

*Effectiveness of the Introductory Course*

In order to measure pre-service teachers’ attitude towards inclusion of learners with SENs respondent’s responses were summed. Since five items were negatively worded they were reversely coded. Students’ scores ranged from 38 to 64 at the beginning of the course and 54 to 72 at the end of the course. Higher scores indicated positive attitude. Since there were 16 items and there were 5 options therefore highest possible score was 80. Table 1 displays the mean items scores at the beginning and at the end of the course and Table 2 shows the mean scores of the participants at the beginning and at the end of the course.

It was interesting to observe that the mean scores of majority of the item that captured the ethos such as “It is possible to educate all children in the same classrooms; ‘Inclusive schools are better places to teach all children’; ‘learners with SENs can learn better in inclusive schools’; ‘schools should be expected to teach children’ regardless of their background’; ‘education is the right that should be available to all children’”, “schools can make a difference to children's lives”, were positive. It was interesting to find that student teachers could identify their roles and responsibilities such as Teachers should be responsible for the learning of all children in the classes they teach. And PGDE students were positive about the success of inclusive education in Botswana. The mean attitude score of students at the beginning of the course was 56 whereas at the end of the scores it was 64.

Table 1.

Mean item scores at beginning and at the end of the course

No	Statements	Pre	Post
1.	All children can learn	4.46	4.53
2.	It is possible to educate all children in the same class	2.80	3.80
3.	Inclusive schools are better places to teach all children	3.00	3.86
4.	Learners with SENs can learn better in inclusive schools	2.60	3.40
5.	Children should be grouped in classrooms according to their ability	3.26	2.73
6.	Some children are better educated outside inclusive schools	3.93	4.26
7.	Schools can help build an inclusive society	4.33	4.60
8.	Teachers should be responsible for the learning of all children in the classes they each	4.40	4.60
9.	Children with special educational needs should be taught by specialist teachers	4.13	3.80
10.	My job as a teacher is to teach those children who want to learn	1.60	1.26
11.	Children's difficulties in school can be solved by special education teachers and regular teachers working together	4.26	4.60
12.	Schools should be expected to teach children regardless of their background	4.26	4.87
13.	Education is the right that should be available to all children	4.53	5.00
14.	Teaching children who find learning difficult takes too much teacher time	3.06	2.93
15.	Schools can make difference to children's lives	4.53	4.93
16.	It is possible to implement inclusive education in Botswana	3.86	4.20

Table 2.

Participants mean scores

Attitude towards inclusion	Mean	N	Std. Deviation	Minimum	Maximum
Beginning	59.06	47	6.71	38	66
End	63.70	47	5.59	54	73

The paired sample t-test conducted to evaluate the impact of the introductory course at the beginning and at the end of the course revealed a statistically significant increase in students' scores from beginning ( $M = 59.06$ ,  $SD = 6.71$ ) at the end ( $M = 63.70$ ,  $SD = 5.59$ ),  $t(47) = -2.296$ ,  $p = .038$  (two tailed). The effect size (Cohen's  $d$ ) was  $(4.29)$  indicating a large effect size. This means that, the introductory course changed students' attitude towards inclusion of students with SENs. However, most of student teachers who joined the programme with positive attitude and the introductory course was effective in enhancing their attitude score. However, it should be interpreted carefully as only 47 students participated in the study.

Interestingly, all the students reported that they were confident in managing learners with SENs after the course. However, students' level of confidence was not measured based on students with SENs not on the specific categories of disabilities. Student teachers' levels of knowledge on local policy for learners with SENs were also measured before and after the course. Eighty-seven percent of students reported that they did not know about the local policy on education of learners with SENs and at the end of the course only 53% reported that they did not know about the local policy.

### *Limitations and Suggestions for the Course*

Interestingly student teachers reported that their knowledge regarding local policy was enhanced at the end of the course. In order to understand the limitation of this course, candidates' responses to open-ended questions were also analysed. Candidates noted that they gained theoretical information and did not get enough opportunity to interact with learners with SENs. Representative statements included, "the course should be more practical"; and "... familiarized with learners SENs and therefore should have school trips." Although participants indicated that they gained considerable knowledge from the course content; candidates noted the importance of practical experiences by writing, "We have the knowledge now, during our teaching practice we should be allowed to teach learners with SENs." Therefore, they suggested more courses in special education and teaching practice would enhanced their confidence level. They summarized, "this course touched on learners with SENs, but I would have appreciated more time spent on them." Similarly, candidates reflected on their preparation in working with these children and wrote, "Although they are the smallest population of students, they are the most complicated to work with, and I feel I could have benefitted from learning more strategies to differentiate for that population." Candidates also acknowledged the importance of learning school culture and cooperative learning.

### *Anticipated Challenges*

Although most of the participants were confident in managing learners with SENS at secondary schools, they identified limited resources, untrained teachers, high student teacher ratio, negative attitudes towards individuals with disabilities as the major challenges of including learners with SENs in regular secondary schools in Botswana. Interestingly, one of the candidates suggested that "we should learn more strategies and collaborate with special educators to teach these learners."

## **Discussion**

This study was designed to investigate PGDE student teachers' attitudes towards inclusive education. We hypothesised that introductory course has the potential to increase student teachers' scores to build mastery in inclusive pedagogies. A paired sample t-test indicated that there was a significant difference between beginning and at the end of the course. The effect size of  $4.26$  is considered substantial. Results indicated that these teachers' overall attitudes were positive with respect to inclusive education. Previous studies have found that attitude towards inclusion of learners with SENs increased following the completion of a course of study in inclusive education at undergraduate level (Mangope et al. 2012; Sharma et al 2009). However, the findings of this study must be interpreted cautiously as we were only able to report on pre and post differences based on a



self-report of attitude of only 47 students. Nevertheless, qualitative data augmented rich information that helped us to get an insight about the limitations of the current course as well as provided suggestions for improvement of the course. Extricating the different facets (before and after teaching practice) with large scale research in a more empirical way might provide better results and would certainly be an avenue for future research.

Globally, the teacher preparation programs are undergoing reforms and yet criticized for their perceived inability to prepare quality teachers (Rosenberg & Sindelar, 2005) for training learners with diverse educational needs; the findings of this research is in fact highly encouraging. If these teachers continue to maintain similar attitudes it is expected that inclusive education would be successful in Botswana.

One aim of this study was to find if an introductory course is effective in changing PGDE student teachers' attitudes towards inclusion of learners with SENs. More particularly, it addressed the question of whether theoretical courses alone are sufficient to change student teachers' attitude towards the inclusion of learners with SENs. However, participants raised important issues related to this course such as 'more practical aspect' 'issues about teaching practice' for meaningful opportunities for interaction with learners with SENs. Participants of this research were of the opinion that pre-service courses focuses on knowledge and knowledge alone is not enough, therefore such courses should also incorporate practical components either during the semester or at the time of teaching practice.

It was interesting to find that most of the students joined the programme with positive attitude towards inclusion of learners with SENs and maintained their attitude throughout the course, this finding is in line with findings from Beacham & Rouse (2012). Although the findings of this research indicate that the introductory course changed mean scores of teachers attitude towards the inclusion of learners with SENs in regular classes and the differences were found to be statistically significant. It could be interpreted cautiously due to small sample size.

## **Conclusion and Recommendations**

Although inclusive education has gained significant currency in Botswana; it is often argued that teachers lack the necessary knowledge and skills to work with such students in inclusive classrooms. The present study has a number of limitations which suggest caution in interpreting the results. The first is that, the sample size, only 47 students responded both beginning and at the end of the course. Secondly, it is highly possible through their course work during the semester, students may have become more aware of the social desirability of affirming positive attitudes towards learners with SENs. Thirdly, even if the observed changes over the semester are assumed to be an accurate reflection of attitudinal change, the one group pre-test and post-test design restricts ability to assign direct causes for these changes. The students would have had a variety of experiential learning outside the classrooms during the semester, which cumulatively could have contributed to positive attitude change. The findings are nevertheless encouraging and correspond with those of other research studies (Forlin, 2004; Lambe & Bones, 2006) regarding the importance of enhancing skills in addition to information-based course work. We therefore tend to recommend that PGDE students of the University of Botswana should also be placed in various placement options including special schools for wider learning opportunities. A significant body of literature informed us that the balance between knowledge, skills and attitudes are three powerful components for successful implementation of inclusive education. Therefore, Beacham and Rouse (2012, p.10) posits that "positive attitudes are more likely to be sustained when teachers have the knowledge and skills to persist with inclusive pedagogies. Nevertheless, although knowledge and skills are necessary, they are not sufficient". Without a favourable attitude it may not be possible to demonstrate knowledge and skills that are needed for teaching learners with diverse educational needs. It is important to underscore that, inclusive education is a multi-dimensional phenomenon different countries are not only implementing at different rates but also developing it in quite different directions. Therefore, teacher educators should take cognizance of the local policies and practices of inclusive education and incorporate it the teacher education programme. Such a move might facilitate the systematic implementation of inclusive education in Botswana schools which may benefit all learners.

The findings of the current study suggest that fieldwork experiences with learners with SENs may be beneficial in enriching future teachers. It is also possible that these attitudinal changes may be transitory, and may not be maintained once these student teachers are confronted with difficult classroom experiences with learners with diverse educational needs. In order to maintain pro-inclusion attitudes, we further recommend that secondary schools in Botswana should recruit inclusion coordinators in schools to work closely with beginning teachers of mainstream education to address the needs of learners with SENs.

## References

- Beacham, N., & Rouse, M. (2012). Student teachers' attitudes and beliefs about inclusion and inclusive practice. *Journal of Research in Special Educational Needs*, 12 (1), 3–11.
- Boe, E. E., Shin, S., & Cook, L. H. (2007). Does teacher preparation matter for beginning teachers in either special or general education? *Journal of Special Education*, 41, 148-170.
- Chireshe, R. (2011). Effective and ineffective lecturers: University students' perspective in Zimbabwe. *Anthropologist*, 13(4), 265-269.
- Chhabra, S., Srivastava, R., & Srivastava, I (2009). Inclusive Education in Botswana: The Perceptions of School Teachers. *Journal of Disability Policy Studies*, 20 (4), 219-228.
- Creswell, J. W., Plano Clark, V. L., & Garrett, A. L. (2008). Methodological issues in conducting mixed methods research designs. In M. M. Bergman (Ed.), *Advances in mixed methods research* (pp. 66–83). London: Sage.
- Dart, G. (2006). "My eyes went wide open": An evaluation of the special needs education awareness course at Molepolole College of Education, Botswana. *British Journal of Special Education*, 33(3), 130-138.
- Encyclopaedia of the Nations (2005). Drop-out rate (%), primary - education statistics, retrieved from <http://www.nationsencyclopedia.com/WorldStats/Edu-primary-drop-out-rate.html>
- Forlin, C. (2004). Promoting inclusivity in Western Australian schools. *International Journal of Inclusive Education*, 8 (2), 185–202.
- Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2009). Demographic differences in changing pre-service teachers' attitudes, sentiments and concerns about inclusive education. *International Journal of Inclusive Education*, 13, 195–209.
- Government of Botswana, (1977). National policy on education. Gaborone, Botswana: Government Printers.
- Government of Botswana, (1994). Revised national policy on education. Gaborone: Government Printers.
- Government of Botswana, Ministry of Education and Skills Development (2011). Inclusive education policy. Gaborone: Government Printers.
- Gunn, A.C. Child, C., Madden, B., Purdue, K., Surtees, N., Thurlow, B., & Todd, P. (2004). Building inclusive communities in early childhood education: Diverse perspectives from Aotearoa New Zealand. *Contemporary Issues in Early Childhood*, 5 (3), 293-308.
- Hergenrather, K. C., & Rhodes, S. D. (2007). Undergraduate student's attitudes toward persons with disabilities: The influence of social context. *Rehabilitation Counselling Bulletin*, (50)2, 66-75.
- Jordan, A., Schwartz, E., & McGhie-Richmond. (2009). Preparing teachers for inclusive classrooms. *Teacher & Teacher Education*, 25, 535-542.
- Kisanji, J. (1993). Special Education in Africa. In P. Mittler, R. Brouillette, & D. Harris, (eds.) *World Yearbook of Education 1993: Special Needs Education*. London: Kogan Page.
- Khoele, L.D (2008). Dilemmas educators are facing in implementing the inclusive training programme. Unpublished Masters dissertation submitted to University of Johannesburg. Retrieved from <https://ujdigispace.uj.ac.za/bitstream/handle/10210/3284/Khoele.pdf>
- Kuinyi, A. M., & Mangope, B. (2011). Student teachers' attitudes and concerns about inclusive education in Ghana and Botswana. *International Journal of Whole Schooling*, 7 (1), 20-37.

- Lambe, J., & Bones, R. (2006). Student teachers' attitudes to inclusion: implications for Initial Teacher Education in Northern Ireland. *International Journal of Inclusive Education*, 10(6), 511–527.
- Lancaster, J., & Bain, A. (2010). The design of pre-service inclusive education courses and their effects on self-efficacy: a comparative study. *Asia-Pacific Journal of Teacher Education*, 38 (2), pp. 117–128, 2010.
- Mangope, B. (2002). The attitudes of rural primary and secondary school teachers toward the inclusion of students with disabilities in their classrooms in Botswana. Unpublished Masters' Thesis, University of Melbourne.
- Mbengwa, E. B (2010). Adjusting secondary teacher training programmes in Botswana to ensure effective support within Inclusive education. Unpublished Doctoral Dissertation. University of Free State. Retrieved from [etd.uovs.ac.za/ETD-db/theses/available/etd.../MbengwaEB.pdf](http://etd.uovs.ac.za/ETD-db/theses/available/etd.../MbengwaEB.pdf).
- Mcbride, R (2010). Education and training policy support programme [inclusive education policy], Unpublished draft report submitted Ministry of Education and Skills Development, Republic of Botswana.
- Mukhopadhyay, S (2012). Botswana primary schools teachers' perception of inclusion of learners with special educational needs. *Journal of Research in Special Needs Education*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1471-3802.2012.01269.x>
- Mukhopadhyay, S. & Molosiwa, S (2010). Influence of an Introductory Special Education Course on Attitude Change of PGDE Students of University of Botswana. *Asia Pacific Disability Rehabilitation Journal*, 21 (2), 47-56.
- Mukhopadhyay, S., Molosiwa, S. M. & Moswela, E. 2009. Teacher trainees' level of preparedness for inclusive education in Botswana schools: Need for change. *International Journal of Scientific Research in Education*, 2 (2), 51-58. Retrieved from <http://www.ijre.com>
- Obeng, C. (2007). Teacher's views on the teaching of children with disabilities in Ghanaian classrooms. *International Journal of Special Education*, 22 (1), 96-102.
- Pijl, S. J., & Meijer, J.W. (1997). Factors in inclusion: A framework. In S.J. Pijl., J.W. Meijer., & S. Hegarty. (Eds.) (1997). *Inclusive education: A global agenda*. London: Routledge.
- Pottas, L. (2005). Inclusive education in South Africa: The challenges posed to the teacher of the child with a hearing loss. Unpublished doctoral dissertation submitted to University of Pretoria. Retrieved from <http://upetd.up.ac.za/thesis/available/etd-09072005-105219/unrestricted/00front.pdf>
- Pugach, M. C., & Blanton, L. P. (2009). A framework for conducting research on collaborative teacher education. *Teaching and Teacher Education*, 5 (4), 575-582.
- Purdue, K., Gordon-Burns, D., Gunn, D., Madden, B., & Surtees, N. (2009). Supporting inclusion in early childhood settings: some possibilities and problems for teacher education. *International Journal of Inclusive Education*, 13(8), 805–815.
- Rosenberg, M. S., & Sindelar, P. T. (2005). The proliferation of alternative routes to certification in special education: A critical review of the literature. *The Journal of Special Education*, 39(2), 117-127.
- Sharma, U., Forlin, C., Lorman, T. & Earle, C. (2006). Pre-service teachers' attitudes, concerns and sentiments about inclusive education: an international comparison of the novice pre-service teachers. *International Journal of Special Education*, 21 (2), 80–93.
- Thomas, G., & Vaughan, M. (2004). *Inclusive education: Readings and reflections*. Maidenhead, Berkshire: Open University Press.
- UNESCO (2009). *Towards inclusive education for children with disabilities: A Guideline*. Bangkok: UNESCO Bangkok.