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Teacher Educators' Views on Inclusive Education and Teacher Preparation in Ghana

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Abstract

The crucial role of initial teacher education programmes and teacher educators in preparing effective inclusive practitioners has been universally acknowledged. This study explored the attitudes of 125 teacher educators from four colleges of education towards inclusive education, their views and concerns about teacher preparation and the implementation of inclusive education in Ghana. The study found positive attitudes and considerable support for inclusive education. However, the majority of teacher educators were of the view that Ghana was inadequately prepared for the implementation of inclusive education. Their reasons and concerns were generally found to include: inadequate teacher preparation, unpreparedness of teacher educators, inadequate emphasis on inclusive instructional strategies and lack of teaching and learning materials. The implications of these findings for future reforms of inclusive teacher education were discussed.

Keywords: teacher educators, initial teacher preparation, inclusive education, Ghana

Introduction

The 1994 World Conference on Special Needs Education in Salamanca, Spain, declared that although children, the youth and adults have differing characteristics, interests, abilities and learning needs, they must all have access to regular education, through child-centred pedagogy, that is capable of meeting their special educational needs (SEN). The Salamanca Statement – reaffirming the right to education of every individual, as enshrined in the 1948 Universal Declaration of Human Rights, and committing to the 1990 World Conference on Education for All (EFA) – called upon countries to adopt inclusive education as a matter of law or policy (UNESCO, 1994). The Salamanca Statement has been a considerable source of influence in the formulation of local educational policies and has rekindled Ghana's commitment to improve the access, quality and provision of equal educational opportunities for all children, including those with disabilities. In particular, the Education Strategic Plans (ESP) of 2005 to 2015 and 2010 to 2020 have decreed inclusive education as the most appropriate educational provision for students with disabilities, with the goal of achieving an inclusive education system by 2015 (Government of Ghana, 2012, 2003). The recently drafted inclusive education policy of Ghana is founded on the premise that every child has the right to education. This policy therefore seeks inclusive education for all persons with mild as well as severe SEN at all levels of education (Ministry of Education [MOE] 2013).

A recent review of the status of the inclusive education system in Ghana (Ametepee & Anastasiou, 2015), however, found that ESP (2003–2015) targets have not been met, that only three percent of children with disabilities in Ghana receive any form of education, that the remainder fails to attend and that those who attend are without support. The establishment of an inclusive education system across Ghana has lagged because of barriers facing students with disabilities, such as schooling costs, lack of adequate transportation, unavailability of curriculum support and the absence of trained teachers (Singal et al., 2015). Others explanations include lack of effective teacher training and an inadequacy of clear inclusive policies embracing specific inclusive and child-centred strategies such as co-teaching, consultative services and peer-assisted strategies (Ametepee & Anastasiou, 2015).

Notwithstanding, the curricula at the primary and junior high school levels in Ghana encourage the adoption of child-centred approaches (Ampiah, 2008). However, recent studies have shown that the experiences of students with disabilities in mainstream settings are unfavourable; they sit idly and do not understand taught lessons (Singal et al., 2015), and their SEN are inadequately met due to teachers' limited competence in adaptive teaching practices (Agbenyega & Deku, 2011; Alhassan & Abosi, 2014; Kuyini & Desai, 2009; Kuyini & Mangope, 2011). Similar studies across other developing countries have shown that participatory, child-centred teaching pedagogies, activity-based learning, problem-solving approaches, child-to-child activities and group work are non-existent in mainstream classrooms (Arbeiter & Hartley, 2002; Johnstone & Chapman, 2009).

The prevailing practice of teachers' adoption of teacher-centred strategies that keep disabled children away from school in developing countries has been attributed to high student-teacher ratios, a lack of resources and support services for pupils with impairments, inadequate pre-service and in-service training for teachers (Le Fanu, 2013; Singal et al., 2015) and little emphasis on inclusive instructional strategies in initial teacher education programmes (Johnstone & Chapman, 2009). The lack of adoption of inclusive and child-centred strategies might also reflect a lack of knowledge on the part of teachers.

The didactic approach of disseminating knowledge from teacher to students fails to take into account the SEN of students and contradicts the pedagogies required for providing equitable and accessible education for all (Forlin & Sin, 2010). Inclusive education requires a child-centred pedagogy that acknowledges that human differences are normal and that learning must be adapted to the needs of the child rather than the child adapting to the pace and nature of the learning process (Rouse & Florian, 2012; UNESCO, 1994). It requires teachers to modify curricula and adopt more child-centred modes of instruction and small-group learning (Loreman, 2007). As an important aspect of inclusion, child-centred learning recognises that individual students each have their own starting point for learning, their own individual previous unique knowledge base, that the teacher recognises the importance of the student level of engagement and motivation in an activity, that students are in control of their environment and that the teacher facilitates students' ability to control their day (Humphreys, 2009).

Similarly, an inclusive pedagogy constitutes a shift from approaches that work for most learners – those that exist alongside 'additional' or 'different' approaches – and moves towards approaches that provide rich learning opportunities for everyone (Rouse & Florian, 2012). Both pedagogical categories shift the focus from learners with SEN to learning for all. They provide learning opportunities that benefit everyone so that all learners are able to participate. Child-centred pedagogies are therefore conducive to inclusive pedagogies. O'Sullivan (2004) argues that Western conceptualisations of child-centred approaches could improve teachers' capacities in developing countries to implement inclusive education. However, few of these pedagogical strategies have been observed in mainstream classrooms due to the aforementioned contextual factors in Sub-Saharan African countries (Arbeiter & Hartley, 2002; Dart, 2006; Le Fanu, 2013).

The recent policy on inclusive education in Ghana is expected to provide the platform for addressing the diverse educational needs of all Ghanaian school-age children within the structures of the Universal Design for Learning and Child Friendly Schools to ensure that the teaching and learning environment is friendly to all pupils. It is expected to equip teachers with pedagogical skills to identify and respond to the needs of each child (Ministry of Education, 2013), which will have crucial implications for teacher educators and initial teacher education in Ghana.

Teacher educators' attitudes towards inclusive education

A number of studies from both developed and developing countries suggest that teachers' attitudes are critical to ensuring successful inclusive education (Agbenyega, 2007; Arbeiter & Hartley, 2002; Forlin, Earle, Loreman & Sharma, 2011; Kuyini & Mangope, 2011). Teacher preparation courses focusing on attitudinal change towards inclusive education, including the required knowledge and skills, have produced teachers who are more positive towards the inclusion of SEN students (Dart, 2006; Forlin & Chambers, 2011; Forlin et al., 2011; Rouse & Florian, 2012). Teacher educators' knowledge, beliefs, attitudes and skills about inclusion have been identified as crucial to identifying and addressing student teachers' attitudes within teacher education programmes towards accepting inclusive teaching ideologies (EADSNE, 2012; Forlin, 2010; Rouse & Florian, 2012). Moreover, studies from both developed and developing countries have established that teacher educators have supportive attitudes towards inclusive education (Pinnock & Nicholls, 2012; Tungaraza, 2013).

A recent study showed that Ghanaian public university teachers had a favourable perception of the inclusion of visually-impaired students and agreed that all children with

disabilities can benefit from inclusion. However, they lacked the capabilities to teach such students (Mamah, Deku, Darling & Avoke, 2011). Other studies have also observed that some teacher educators lack knowledge of the underlying values and practices of inclusive education (EADSNE, 2012). Moreover, some have little experience with SEN pupils and lack experience of inclusive practices and relevant experiences in inclusive settings (Pinnock & Nicholls, 2012; Rouse & Florian, 2012).

It is highly recommended that teacher educators model effective inclusive practices to their student teachers (Coffey International Development, 2012; EADSNE, 2012). However, studies have shown that that they are unable to translate inclusive principles in training into useful practical guidance for trainees (Pinnock & Nicholls, 2012) and are uncertain about demonstrating inclusive practices (Rouse & Florian, 2012). Many have, therefore, argued for opportunities for the professional development of teacher educators to improve their practical experiences, knowledge of inclusive teaching approaches, concepts, skills and values (EADSNE, 2012; Mamah et al., 2011; Pinnock & Nicholls, 2012; Rouse & Florian, 2012).

Initial teacher preparation for inclusion

Teachers' knowledge of SEN, inclusive pedagogical strategies, students' diverse learning styles and motivational techniques in teaching has been identified as essential for the implementation of inclusive education (Forlin & Sin, 2010). Studies from teacher education programmes indicate that when pre-service teachers are trained in inclusive pedagogical strategies, such as Universal Design for Learning (UDL), they can more easily develop lesson plans that are accessible to a diversity of learners (McGhie-Richmond & Sung, 2013). UDL enables teachers to appreciate the variability of learning needs in classrooms and to modify the curriculum to meet those needs (Hartmann, 2015).

Further, collaboration, co-teaching and differentiated instruction have been identified as effective inclusive strategies in providing equitable core curricula access to diverse student bodies, including those with SEN (Thousand & Santamaria, 2004). Co-teaching is an approach whereby two or more teachers share responsibility for teaching some or all of the students assigned to a classroom. It has been found to assist teachers to serve all students fairly and equitably in general education classrooms (Cramer, Liston, Nevin & Thousand, 2010). Effective parental involvement in the education of SEN children has been regarded as a critical factor in the success of inclusive education; therefore, teachers must be trained to work with parents (Witte & Hornby, 2010). Peer partnership strategies such as peer tutoring, mentorship, peer-assisted learning, cross-age tutoring and peer help in which students team up to support each other for a common purpose have been found to enhance academic, social and personal development and to prepare and empower students to transition as productive members within their community (Mc Neil & Hood, 2005).

Other inclusive pedagogical strategies include cooperative learning approaches and heterogeneous groupings among learners, the development and implementation of Individual Education Plans (IEP) as a tool to support individual SEN pupils in the classroom (Davis & Florian, 2004; EADSNE, 2012) and the formulation of learning activities for all students to develop their autonomy in learning through the adoption of students' learning styles and multiple intelligences (Peterson & Hittie, 2003). The use of information and communication technologies (ICT) and adaptive and assistive technologies also support flexible approaches to learning, promote greater access to learning opportunities and promote collaborative problem-solving

(EADSNE, 2012). The development of teachers understanding of how to use assistive technology will enable them to provide effective assistance to students with SEN (Chambers, 2011).

Initial teacher education courses incorporating the above contents have significantly improved teachers' attitudes and self-efficacy perceptions towards including students with a range of learning needs, resulting in fewer concerns about inclusion (Forlin & Sin, 2010). Studies have shown that teachers who adopt pedagogies of inclusion promote principles of whole schooling such as: empowering citizens for democracy, including all, providing authentic, multi-level instruction, community building, supporting learning and partnering with parents and communities (Thousand & Santamaria, 2004).

It is highly recommended that these effective inclusive knowledge and strategies permeate all content areas and subjects of the initial teacher education curriculum (EADSNE, 2012; Nash & Norwich, 2010). Studies from both developed and developing countries have demonstrated that both teacher educators and teachers prefer this permeation across subject areas alongside the stand-alone compulsory SEN and inclusion module. They strongly agree that this combination would improve the inclusion of people with disabilities in education (Kearns & Shevlin, 2006; Pinnock & Nicholls, 2012) and overcome difficulties that might arise from varying levels of teacher educator expertise (Winter, 2006). However, few studies have confirmed the permeation of these areas across other subject areas in the initial teacher education curriculum (Kearns & Shevlin, 2006; Winter, 2006).

Teacher education for basic education in the Ghana

The basic education system in Ghana consists of two years of kindergarten, six years of primary and three years of junior high school. As a result of the cancellation of school fees and the introduction of capitation grants in 2005 and compulsory pre-school education in 2007, Ghana has made significant improvement in the access and participation of children in basic education, achieving significant progress in gender parity at the kindergarten level (1.01), primary level (0.99) and junior high school (0.95) (Ministry of Education, 2015). However, the literacy levels among Ghanaian children completing Primary 6 remained poor (UNESCO, 2014). The Ministry of Education has recommended that class size not exceed 30 for lower primary and 35 for upper primary and junior high schools; however, several studies have described class sizes as large, with limited teaching and learning materials and teacher support (Agbenyega, 2007; Kuyini & Abosi, 2011; Kuyini & Desai, 2009), thus resulting in limited student engagement and interaction (Agbenyega, 2008).

Ghana operates a centralised curriculum system prescribed by the Curriculum Research and Development Division under the Ministry of Education. This centralised national curriculum has been described as unresponsive to the needs of minority groups. It presents significant challenges for teachers seeking to implement an inclusive education approach, resulting in teacher-centred instruction. This requires teachers to demonstrate confidence and professional responsibilities to adopt pedagogical approaches that broaden curriculum accessibility and increase expectations and learning progression of students with disabilities (Loreman, 2007; Price, 2015).

Since Ghana's independence in 1957, many reforms and teacher certification programmes have been introduced to prepare teachers for basic education. The thirty-eight public and four private colleges of education in Ghana have been upgraded to offer a three-year diploma

in basic education to promote quality education in basic schools. General knowledge in special education has been introduced into the teacher education curriculum, and therefore, a separate mandatory two-credit course on SEN is being offered to all general education pre-service teachers undertaking the diploma in basic education in the teacher certification programme. Specialist training in special educational needs is provided only at the university level. In spite of the upgrade, recent studies have described Ghanaian teachers as incompetent in adapting instructions (Kuyini & Abosi, 2011) and have found absolute neglect of participatory and interactive teaching methods in schools and a preference for lecture and rote learning methods (Ministry of Education, 2010), resulting in pupils' poor performance. To improve pedagogical training, the current policy on inclusive education states that teachers should be equipped with pedagogical skills to identify and respond to the needs of each child (Ministry of Education, 2013).

Statement of the problem

Previous studies on Ghana have focused on mainstream teachers' (Agbenyega, 2007), student teachers' (Kuyini & Mangope, 2011) and university teachers' (Mamah et al., 2011) attitudes towards inclusive education. However, little is known about the attitudes of teacher educators in colleges of education and the extent to which initial teacher education programmes equip teachers with inclusive principles and strategies. This study therefore aimed to address the following research questions:

1. What are the attitudes of teacher educators regarding support for the implementation of inclusive education in Ghana?
2. How do teacher educators in Ghana perceive their role and preparedness regarding the implementation of inclusive education?
3. What forms of inclusive education knowledge and instructional strategies are acquired by pre-service teachers from the initial teacher education programme?

Methods

Participants

The study consisted of 125 teacher educator participants from four of the 38 public colleges of education in Ghana. To ensure easy access, the participating colleges were selected from four regions: College A from the Ashanti Region; College B from the Western Region; College C from the Central Region and College D from the Eastern Region. All four colleges are located in the more prosperous south of the country, and all colleges of education in Ghana follow the same centrally designed curriculum. All teacher educators from the selected colleges purposively became part of the sample. The first author personally delivered survey forms to all teacher educators upon the consent of the principals of the colleges. The purpose of the study was explained to the respondents, and their confidentiality and anonymity were assured.

After several reminders, the response rates for the individual colleges were: 24% for College A, 20% for College B and 28% each for colleges C and D. With respect to gender, 73% were male, and 27% were female. The age distribution ranged from 28 to 60 years ($M = 43.9$, $SD = 7.33$), and their teaching experience ranged from one to 34 years ($M = 8.07$, $SD = 5.58$). Thirty-six percent had obtained bachelor's degrees, and 64% had obtained master's degrees.

The professional background of the teacher educators was predominantly teaching: the majority of the participants (77%) had previous teaching experience in basic schools, 63% had teaching experience in senior high schools, 15% had teaching experience in special schools, and only six percent had teaching experience in inclusive pilot schools. Sixty-one percent had received SEN training, 18% had received training in inclusive education, 14% had received training in both SEN and inclusive education, and only seven percent had received no training in SEN or inclusive education. The teacher educator study participants were responsible for teaching a range of subjects and methodology courses in the colleges of education.

Instrumentation

The questionnaire consisted of two main sections: Section A sought information on respondents' background, such as gender, year of birth, etc. Section B mainly consisted of close-ended-type Likert scale items and a few open-ended items. Items using a Likert scale from 1 to 5 with a neutral middle point were used to determine a) teacher educators' knowledge about inclusive education and SEN, b) their attitudes towards inclusive education and teacher preparation for inclusive education, c) their awareness of their role in the implementation of inclusive education and d) their knowledge of inclusive teaching methods and instructional strategies for effective teaching in inclusive classrooms and the extent of permeation of these strategies across the various subjects. The current preparedness of trainees for inclusive classrooms and the educators' own preparedness in training teachers to teach pupils with SEN and disabilities in inclusive classrooms were measured using a scale of 1 = very well prepared; 2 = somewhat prepared; 3 = don't know; 4 = not prepared at all.

The participants were presented with open-ended questions regarding the role that teacher education plays in the implementation of inclusive education, the participants' experience in teaching students with disabilities and how their experience influenced their tutoring. In addition, seven topics or issues considered critical to the implementation of inclusive education and fifteen teaching strategies and approaches identified in the literature review were presented to the teacher educators so that they could indicate by ticking which ones were comprehensively covered in their course(s) (see Table 2). Considering the breadth of the inclusive teaching approaches and strategies, the authors provided the respondents with options to indicate approaches or strategies that were not pre-determined. The open-ended data were categorised, coded and entered into IBM SPSS Statistics Program 20 together with the quantitative data. Simple frequencies, percentages and one-sample t-test analyses were used in the data analysis.

Results

Level of knowledge

A large majority of the participants (80–86%) reported having adequate levels of knowledge about both special needs children and inclusive education as well as about the overall purpose of inclusive education. The main purposes of inclusive education were tackled with the use of an open-ended question, with the teacher educators characterising these mainly in terms of physical presence (integration) (36%), equal access to quality education (28%) and as a means to achieving acceptance (22%). There were also several mentions of social inclusion, reducing

stigmatisation, preventing discrimination and promoting self-esteem. In general, the teacher educators had a positive view of inclusive education and the need to prepare pre-service teachers for inclusion (see Table 1).

Table 1

Teacher educators' attitudes towards inclusive education and their views regarding teacher preparation (n = 125)

Items	*M*	*SD*	Agree or strongly agree (%)
1. I am in favour of inclusive education	4.07	.85	85
2. Inclusive education will be beneficial to pupils with special needs/disabilities	3.81	.95	78
3. Inclusive education will benefit pupils without special needs/disabilities	3.57	1.19	66
4. Inclusive education is the best educational practice to educate pupils with disabilities and special needs	3.57	1.16	65
5. All pre-service teachers must have teaching experience in an inclusive settings	4.21	.84	86
6. All teachers should be trained and prepared to teach all pupils with different special educational needs/disabilities in an inclusive setting	4.10	.85	82

Views on the implementation of inclusive education

The teacher educators were asked to indicate the extent of Ghana's readiness for the implementation of inclusive education. The majority of them (62%) indicated very little readiness, 30% reported that Ghana was somewhat ready, and only two percent indicated that Ghana was not at all ready.

The teacher educators were asked to explain their choices. The main reasons cited for Ghana's negligible readiness included: inadequate facilities (42%), inadequate teacher preparation (28%), inadequate resources (26%), societal attitudes (9%), inadequate public education (9%) and lack of political will (4%).

Similar reasons were cited as main concerns regarding the implementation of inclusive education. These included: inadequate teacher preparation (38%), lack of instructional materials (25%), an overwhelming focus of colleges of education on the preparation of teachers for regular children (21%), less attention being paid to teacher preparation for inclusive education (20%) and high workloads for classroom teachers and lack of public education (10%).

Teacher education for inclusive education

Overall, the teacher educators were cognisant of the role that teacher education plays in the implementation of inclusive education (M = 4.01), their own role in teacher preparation (M = 3.60) and their role in the implementation of inclusive education in Ghana (M = 3.28). They were further asked to discuss the role that teacher education plays in the implementation of inclusive education in Ghana.

The main role categories identified by the first author from the open-ended question included: to prepare teachers to teach pupils with SEN (74%), to equip teachers with knowledge about SEN (26%), to equip teachers with knowledge about inclusive pedagogical practices (12%) and to organise SEN workshops for in-service teachers (19%). The more infrequently mentioned roles included organising workshops on inclusive education for in-service teachers and preparing teachers to collaborate during teaching, training teachers to use assistive technology for pupils with SEN and recruiting and training disabled teachers and promoting positive attitudes among pre-service teachers.

Adequacy of the teacher education programme

The teacher educators were asked to rate their preparedness for training teachers to teach pupils with SEN/disabilities in an inclusive classroom. The majority (60%) indicated that they were somewhat prepared, 24% reported being very well prepared, eight percent indicated that they were not at all prepared, and eight percent reported that it was not part of the courses they taught. They were also asked to indicate their own experience of teaching pupils with SEN/disabilities. The results indicate that the majority (56%) had little or some experience, 33% reported no experience and 18% quite a lot or a lot of experience. Of the 125 participants, 19% reported that their experience helped them treat student teachers individually, 17% offered practical examples of how to meet the learning needs of SEN pupils during teaching, 12% tried to meet the learning needs of student teachers, and three percent provided greater attention to student teachers.

Regarding their views of the current preparedness of student teachers for inclusive education, only a minority (7%) indicated that the current cohort of student teachers were very well prepared, 68% reported that they were somewhat prepared for inclusive education, 15% indicated that they were not at all prepared, and 10% indicated that they did not know. Regarding the views of teacher educators on how much attention was being given to preparing teachers to teach children with SEN/disabilities in regular schools, a minority (40%) believed that less attention was being provided, 31% believed that some attention was being provided, 11% believed no attention was being provided and that more needed to be done, and only nine percent indicated that more attention was being provided. On their views about the innovative programmes being implemented in their colleges of education to ensure that teachers are best prepared to work in inclusive settings, 17% indicated a SEN course, 13% indicated educational visits to special schools, two percent indicated inclusive education workshops for teacher educators, and one percent indicated additional reading material on SEN.

Knowledge and modelling of inclusive practices

The teacher educators were asked to indicate their level of awareness of inclusive teaching methods or instructional strategies. Most of them (56%) reported having little knowledge, 24% reported having no knowledge, and only 20% reported having significant knowledge. They were then asked to list some of the inclusive teaching methods or instructional strategies they knew. Activity-based learning (10%) was most frequently mentioned, followed by breaking down the task (7%) and demonstration (7%). Several other inclusive methods received only one or two mentions, including role play, cooperative teaching, sensory approaches and class-wide peer tutoring.

The respondents were further asked to state the teaching methods or instructional strategies they most often used in class. The open-ended question was categorised by the first author. The most often mentioned method was lecturing (49%), followed by teacher-led discussion (38). Two other frequently mentioned methods were demonstration (28%) and the activity method (27%) which meant that student teachers were actively participating in the learning process, mentally and physically. Less than 10% mentioned more interactive approaches such as group work, the discovery method, brainstorming, role play, questioning, case study, experimenting and project work.

Permeation of SEN and inclusive education elements

The teacher educators were asked to indicate the extent to which the course(s) or subject(s) they taught dealt with SEN/disabilities and inclusive knowledge, values and competencies. The majority of them (74%) indicated that their course(s) dealt 'very little' with SEN/disabilities; 21% reported that their courses dealt 'a lot' with SEN/disabilities, and only five percent indicated that they did not know. Similarly, the majority of teacher educators (69%) indicated that their courses had 'very little' elements of inclusive knowledge, values and competencies; 16% indicated 'a lot' while only 15% indicated that they did not know. The teacher educators were provided with possible topic areas and inclusive pedagogical practices that could be covered in their courses and were given opportunities to state others that were not pre-determined by the authors. The results are presented in Table 2.

The present study also found widespread adoption of teacher-centred approaches by teacher educators, the most common of which were lectures and demonstration methods. Only a minority of them indicated that they encouraged collaborative exchange of ideas through discussion and activity methods to enhance trainees' understanding and active participation. These results corroborate those of Avoke (2008) that teaching methodologies and assessment practices in the colleges were inadequate in preparing trainees to make instructional accommodations for students with SEN and disabilities.

In spite of their perceived sufficient knowledge about SEN and inclusive education, the present study found that the majority of the teacher educators had little knowledge of inclusive teaching methods/instructional strategies. Only a minority demonstrated knowledge of interactive teaching methods – such as activity-based learning, role playing and class-wide peer tutoring – characterising a child-centred pedagogy. These results accord with those of recent studies indicating that the majority of teacher educators lack knowledge of inclusive teaching

Table 2

The extent to which topic areas and inclusive pedagogical practices are dealt with across subjects/courses, as reported by teacher educators (n = 125).

	%
Topics and issues	
Learning difficulties and disabilities	46
Emotional and behavioural problems	44
Learning styles	20
The right of children to education (human rights)	17
Communication and working with parents	10
Multiple intelligences	10
Social justice/equity in education	6
Inclusive pedagogical practices	
Co-operative learning	36
Heterogeneous grouping	34
Providing individual assistance	22
Peer-assisted learning strategies	22
Strategies for managing behaviour problems	21
Class-wide peer tutoring	18
Collaborative problem-solving	17

approaches (Mamah et al., 2011; Pinnock & Nicholls, 2012; Rouse & Florian, 2012). The teacher educators' inadequate knowledge of inductive approaches or child-centred and inclusive pedagogies perhaps explains the widespread adoption of teacher-centred approaches in colleges of education. These findings therefore provide support for the further development of the profession of teacher education in the area of inclusive education, its principles and instructional practices (EADSNE, 2012; Rouse & Florian, 2012).

The present results also show that the majority of respondents have not had training in inclusive education and have only had little or some inclusive teaching experience. Consequently, most of them perceived themselves as somewhat prepared to train teachers to teach in inclusive settings. These results are in agreement with previous findings showing that teacher educators have little experience with pupils with diverse learning needs and lack experience of inclusive practices or relevant experience in inclusive settings. Therefore, they could not demonstrate inclusive principles and practices (EADSNE, 2012; Pinnock & Nicholls, 2012; Rouse & Florian, 2012). Pinnock and Nicholls (2012) and EADSNE (2012) recommend that teacher training reforms for inclusive education should focus more on equipping teacher educators with inclusive teaching experience and strategies to promote inclusion. This would enable them to effectively model core inclusive values and competences to support trainees in becoming inclusive teachers.

However, another significant finding was that the few respondents who had had previous teaching experience in inclusive settings stated that they valued diversity and modelled some effective teaching strategies for their trainees. Based on their experience of teaching pupils with

SEN/disabilities, they treated trainees individually, offered practical examples of how to meet the learning needs of SEN pupils, tried to meet the learning needs of trainees and provided them with greater levels of attention. This combination of findings provides some support for the conceptual premise that teacher educators' direct experience of work in inclusive education would enable them to effectively communicate to their trainees the 'what', 'how' and 'why' of teaching learners with diverse needs (EADSNE, 2012, p. 22). A study on Ghana confirmed that due to a lack of such effective communication and modelling, countless in-service training programmes had failed to convince teachers of the need to adopt activity-based learning approaches in Ghanaian schools (Coffey International Development, 2012).

The modelling of effective instructional approaches by experienced teacher educators in classrooms with similar characteristics to mainstream classrooms will not only allow trainees to observe these approaches in action but to also witness their feasibility and efficacy. O'Sullivan (2004) hopes that student teachers' experiences as students learning within child-centred approaches would further develop their capabilities to use these approaches in their classrooms. Also, strong coordination between the colleges of education and special and inclusive schools would maintain the relevant previous regular classroom experiences of teacher educators. This would enable them to carry out action research and implement research findings about inclusive pedagogy. Studies have explained that action research on pedagogy and the process of its development is an effective method of determining pedagogical approaches appropriate to particular contexts (O'Sullivan, 2004) and can yield knowledge about the possible forms that inclusive pedagogy can take in the resource-constrained and traditionally collective societies of many developing countries (Croft, 2010).

The permeation of knowledge of SEN and inclusive strategies across subject areas in teacher training programmes has been highly recommended (EADSNE, 2012; Nash & Norwich, 2010) and supported by both teacher educators and teachers (Kearns & Shevlin, 2006; Pinnock & Nicholls, 2012; Winter, 2006). In this study, the majority of the teacher educators of courses besides the SEN course indicated that their courses dealt marginally with elements of SEN and inclusive education. Consistent with the findings of Pinnock and Nicholls (2012), a greater degree of SEN elements – as opposed to inclusive knowledge, values and practices – were reportedly covered by the teacher educators. Similarly, most of them identified their main role and that of teacher education as dealing more with equipping trainees with knowledge about SEN than with inclusive pedagogical practices.

Moreover, the teacher educators were presented with issues and inclusive teaching strategies from the literature (see Table 2) so that they could tick which ones were comprehensively covered in their course(s). They were also provided with space to specify others that were not predetermined by the authors. The result indicates that only a minority of them indicated that such issues and effective instructional strategies were covered in their courses. This confirms the assertion of Coffey International Development (2012) that such strategies are not comprehensively mainstreamed in the teacher training programme in Ghana. Consequently, mainstream classroom teachers in Ghana rarely demonstrate these effective adaptive teaching practices (Alhassan & Abosi, 2014; Kuyini & Desai, 2009). The current study therefore calls for the mainstreaming of inclusive strategies into pre-service and in-service teacher training programmes as requirements for the achievement of the desired characteristics and implementation of child-centred and inclusive pedagogies.

Notwithstanding, the teacher educators demonstrated full awareness of their responsibility and the role that teacher education plays in the implementation of inclusive

education. However, the study found evidence of inadequate innovative reforms for inclusive education in the colleges of education. Only a few teacher educators mentioned educational visits to special schools, inclusive education workshops for teacher educators and SEN courses and the provision of reading materials on SEN as innovative programmes to prepare teachers for inclusive education. The lack of adequate innovative reforms for inclusive education within colleges of education could be due to the rigid nature of the centralised curriculum for the colleges of education. The high sense of responsibility should lead to significant reforms aimed at preparing inclusive teachers (see e.g. Dart, 2006; Forlin & Chambers, 2011; Rouse & Florian, 2012). In the case of the Molepolole College of Education in Botswana, for instance, teacher trainees are encouraged to develop IEPs for SEN children during teaching practice, make teaching aids out of local materials for the effective teaching of SEN children and reflect on factors that affect pupils' learning (Dart, 2006).

Lastly, the majority of the respondents were of the view that Ghana was not very well prepared for the implementation of inclusive education. Consistent with the study of Tungaraza (2013) on Tanzania, the reasons behind their concerns included: inadequate teacher preparation, inadequate resources and facilities and a lack of public education and political will. In Ghana and other developing countries, these reasons and concerns constitute formidable barriers to the quality of teaching and learning for all pupils and for the achievement of inclusive education (Agbenyega, 2007; Charema, 2010; Croft, 2010; Le Fanu, 2013; Kuyini & Desai, 2009; Pinnock & Nicholls, 2012; Singal et al., 2015). There is therefore a need for major campaigns aimed at overcoming these barriers to achieve increased participation for all learners in schools' cultures, practices, curricula and assessments in sub-Saharan African countries through the provision of classroom level tools, equipment, resources, guidelines and support.

Implications and Conclusion

The findings of this study suggest that the preparation of teachers for inclusive education is perhaps one of the greatest challenges facing the implementation of inclusive education in Ghana. With inclusive education as a policy goal in Ghana, the findings of this research have several practical implications for inclusion in the future reform of teacher education and teacher educators' preparedness to train teachers.

First, the present study provides additional evidence that there is inadequate emphasis and integration of effective instructional strategies in Ghana's colleges of education. This lack of emphasis and modelling might explain the widespread adoption of teacher-centred approaches by Ghana's mainstream teachers and their inability to adapt the centralised curriculum to the needs of Ghanaian school children. These areas require further policy development to ensure the mainstreaming of inclusive principles and inclusive instructional practices in the curricula of colleges of education to enhance the implementation of inclusive education.

Second, the study provides evidence that the majority of teacher educators lack sufficient understanding of inclusive education and its purposes as well as knowledge about inclusive pedagogical practices and experience in inclusive settings. This provides support for the further development of teacher educators' profession in the area of inclusive education. The master's programmes in teacher education must incorporate courses that promote teacher educators' understanding of inclusive education, diversity, inclusive and child-centred pedagogical practices. Opportunities should also be provided for teacher educators to enable them to access a wide range of practical experiences with SEN pupils in mainstream schools, further enabling

them to model inclusive values and competences for trainees. Taken together, these strategies will provide a tremendous boost to teacher educators' preparedness in training teachers to teach pupils with SEN/disabilities in mainstream classrooms.

Lastly, there is a need for the reform of certain aspects of colleges of education – such as the lack of resources, the deep-rooted examination-oriented culture and the inflexible curriculum – that might prevent teacher educators from adopting and modelling child-centred and inclusive instructional pedagogies.

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