



**COLLEGES OF EDUCATION TUTORS' PERCEPTIONS
ON THE ADAPTATION AND MODIFICATION APPROACHES
FOR CHILDREN WITH SPECIAL EDUCATIONAL NEEDS
AND DISABILITIES IN GHANA**

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Abstract:

The article sought to determine perceptions of Colleges of Education tutors on how the current Colleges of Education curriculum equips pre-service teachers to adapt and modify the general school curriculum to accommodate the needs of all children with special educational needs and disabilities for effective inclusive education in Ghana. A descriptive survey design was adopted using a sample of 235 tutors from 13 Colleges of Education in Ghana. The lottery method was used to select four regions out of the sixteen regions of the country and the purposive sampling technique was used to select all the colleges within the four regions, while convenience sampling technique was used to select the actual respondents for the study. Questionnaires with closed ended items were

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developed for the data collection. It was evident from the study that majority of the tutors believed that the curriculum prepares pre-service teachers to adapt the general school curriculum to accommodate the needs of all children with special educational needs and disabilities in an inclusive classroom. Recommendations were made based on the findings and conclusions were drawn.

Keywords: inclusive education, pre-service teacher preparation, colleges of education, adaptation and modification, children with special educational needs and disabilities, perceptions, Ghana

1. Introduction

Providing quality education for all students in inclusive settings has been identified as perhaps the most challenging but significant issue in education throughout the world today. Every student has an inherent right to education on the basis of opportunity. UNESCO (1994) stated categorically that no student is to be excluded from or discriminated against in education on the basis of differences,—be it race, colour, gender, language, religion, political affiliation, nationality, ethnic or social origin, disability, place of birth, poverty or other status. All students can learn and benefit from education if schools adapt to the needs of students, rather than the students adapting to the needs of the schools and with their views listened to and taken seriously. Individual differences among students are a source of richness and diversity and not problems.

In Ghana, the bulk of pre-service teacher preparation is primarily the responsibility of the 46 public Colleges of Education. From the early 1990's, the Colleges of Education in Ghana introduced a course in Special Needs Education into the curriculum to provide teacher trainees with some knowledge and skills about special needs in classrooms (Ghana Education Service, 2005). Apparently, studies have shown that there are many children with mild disabilities and other difficulties in regular classrooms across the country (Hayford, 2007). For effective teacher preparation programme towards inclusive education, programmes must inculcate in pre-service teachers an understanding and appreciation for diversity. This is because; research has shown that the general education classroom contains a range of learning needs (Hayford, 2007). Many individuals coming into pre-service training programmes have little or no exposure to special needs children. Exposing pre-service teachers to situations involving individuals who are able, and those who have different learning styles and needs can enhance the preparation of teachers for inclusive education. Schumm and Vaughn (1995), also assert that teacher trainees need to mirror inclusive practices and respect for diversity in their classrooms. Consequently, they will be able to adapt and modify their curriculum and instructional strategies to meet the unique learning needs of all learners in an inclusive classroom.

In Ghana, most teachers appeared to have limited knowledge concerning the education of persons with special educational needs and therefore are unable to provide

the needed support for this category of people. However, intensifying knowledge base is essential if teachers are to be successful in teaching to the wide range of diverse abilities present in today's classrooms. One of the requirements for the effective implementation of inclusive education is that teachers must be adequately prepared (Moore & Gilbreath, 1998). This can be accomplished by providing experiences that requires prospective teachers to develop creative problem- solving skills and to view situations from different perspectives.

2. Literature review

2.1 Adaptations and Modification for Children with Special Educational Needs and Disabilities

For inclusive education to be successful, much depends on the general education teacher's ability to adapt and modify instructions when students have difficulties acquiring the content of the lessons taught in the regular classroom. The literature has shown that the success of inclusion largely hinges on the willingness and the ability of teachers to adapt and make accommodations for individuals with special educational needs and disabilities (Bender, Vail & Scott, cited in Ali, Mustapha & Jelas, (2006)).

The regular school curriculum and the methods of teaching should meet the needs of every child in the classroom. Curriculum differentiation should not be an exception but rather a central method of ensuring curriculum access (Gilbert & Hart, 1990). The pre-service teacher must be prepared in terms of understanding the curriculum appropriateness for implementing inclusive education.

According to Levitz (1996), the curriculum and educational system as a whole have failed to respond to the diverse needs of the learner population, resulting in massive numbers of drop-outs, push-outs, failures and in learners being mainstreamed by default. This implies that there is no provision made for a child who is facing difficulties to access the general education curriculum in the regular classroom and. Therefore, such students tend to become failures and consequently drop out of school.

Okyere (as cited in Diendong, 2006)) wrote on attitudes of classroom teachers towards including children with special educational needs and disabilities in regular classrooms in Ghana and Nigeria. The authors indicated that most teachers had negative attitudes. Hence, they were not willing to cope with and adapt the regular school curriculum and instructional strategies for the purposes of inclusion. Other studies have revealed that teachers were more positive about including only those students whose characteristics were not likely to require extra instructional or management skills on the part of the teacher (Forlin, 1995, Schumm, Hager, McDowell, Rothlein & Samuel, 1999; Vaughn, Schumm, Jallad, Slusher & Samuel, as cited in Bradshaw & Mundia (2006)). This may confirm the argument that teachers are worried about the concept of inclusion due to feelings of incompetence. A little adaptation could, however, lift the confidence level of the teacher. Teacher's unwillingness to adapt curriculum and instruction is a potential drawback to the practice of inclusion in Ghana.

Florian (2007) noted that teachers need to understand the differences that accounted for as an essential aspect of human development in any conceptualization of learning. She adds that teachers need to be disabused of the idea that they are not capable of teaching all learners. Cochran-Smith (2003) stressed the need to produce teachers who, in addition to knowing what to teach and how to teach, also know how to learn and make decisions informed by theory and research and by feedback from school and classroom evidence in particular contexts.

Ainscow, Booth and Dyson (2007) have pointed out the need to see teacher development as more than simply learning to implement centrally mandated practices. Darling-Hammond (2006) agrees that teachers need to know how and when to use a range of practices to accomplish their goals with different students in different contexts, rather than being subject to the pendulum swings of polarised teaching policies. Therefore, it beholds on the classroom teacher to modify the general education curriculum and teaching strategies to address diversity in the regular classroom.

Molina (2006) similarly believes that teachers are more than technicians in education sciences – they are professionals in human relationships. While still needing knowledge of education sciences they also need true experience, to realise that “*knowing is never dogmatic nor finished*” (p. 67). These authors are implying that teachers should continue to search for knowledge and skills which will enable them to adapt and modify their instructions to meet the needs of all learners in the inclusive classroom.

Rink (2002) states that teachers in inclusive settings must provide the following for their students: developmentally appropriate content, clear instructions for practice, opportunities to practice at an appropriate level of difficulty, opportunities to participate in appropriately designed task progressions and accurate feedback and assessment of subject matter and role performance. While relating to the teaching of physical education, these points show the importance of teachers’ skills in creating an interactive and responsive learning environment and managing the learners in achieving multiple learning outcomes.

Rix, Hall, Nind, Sheehy, and Wearmouth (2006) note the shortage of evidence about the nature of inclusive teaching approaches, although they did find some evidence of the effectiveness of peer group interactive approaches in developing both social and academic participation. Their findings support the idea that teachers who see the inclusion of pupils with SEN as part of their role are more likely to have effective, high-quality and task commitment with pupils.

Teachers require support to use their pedagogical skills more effectively in different situations to meet the needs of all learners and understand that inclusive practice is more than ‘curriculum differentiation. Hart (2000) developed a framework to support teachers in ‘innovative thinking’ about learning, suggesting that teachers consider: making connections between contextual and classroom factors, contradicting widely held, normative assumptions, taking a learner’s eye view, seeking to understand the meaning of activities, noting the impact of their own feelings, and postponing judgment in order to find out more when evaluating a learner’s progress.

Ainscow (2007) stressed that teachers need to see what inclusive teaching actually looks like and explore ideas with someone who can help them understand the difference between what they are doing and what they aspire to do. Lipman (1997) cautioned that specific attention is needed on such issues to bring about change – otherwise teachers can collaborate to reinforce existing practice rather than confronting difficulties. When this situation occurs, it will affect inclusion philosophy.

According to Malarz (1996), the use of different learning and teaching styles, curriculum modification and the use of technology are ways of adaptation for inclusion to work but the regular classroom teacher must ask himself the questions above and find solutions to them before he or she can implement that.

Hargreaves (2006) outlines nine 'gateways' to personalising learning: student voice, assessment for learning, learning to learn, new technologies, curriculum, advice and guidance, mentoring and coaching, workforce development and school organisation and design. According to the Council for Exceptional Children (2011), there are several methods that teachers can consider when creating instructional accommodations and adaptations to meet the needs of diverse learners. These are:

Altering existing materials: Teachers can re-write, reorganize, add to, or re-cast the information so that the student can access the regular curriculum material independently. For example, teachers could prepare a study guide and audiotape for students.

Mediating existing materials: Teachers can provide additional instructional support, guidance, and direction to the student in the use of the materials. Teachers can adapt instruction to mediate the barriers presented by the materials so that one may directly lead the student to interact with the materials in different ways. For example, one might have students survey the reading material, collaboratively preview the text, and create an outline of the material to use as a study guide.

Selecting alternate materials: Teachers can select new materials that are more sensitive to the needs of students with disabilities or are inherently designed to compensate for learning problems. For example, they can use an interactive computer programme that cues critical ideas, reads text, inserts graphic organizers, defines and illustrates words, presents and reinforces learning in smaller increments, and provides more opportunities for practice and cumulative review.

With respect to culturally responsive pedagogy, Edwards and Kuhlman (2007) say that teacher candidates must know that the process of becoming a culturally responsive teacher is nurtured by living, experimenting, travelling and reading. They further stated that, *"finished products do not graduate from our institutions and teacher candidates must acknowledge that they are works in progress so that they may continue to develop in their awareness of and ability to enact responsive pedagogy"* (p. 17) However, they suggested that the inclusion of video cases to model both strategies and the teacher thinking is required to modify approaches in response to how teachers may support student understandings of specific strategies for culturally responsive teaching.

It is imperative to note that those teachers who focus only on teaching techniques and curriculum standards and who do not embrace the greater, social and moral questions of their time promote an impoverished view of teaching and teacher professionalism (Hargeaves, 2003). It is, therefore, expedient for the regular school teacher to be abreast with current practices in the educational sphere in order to meet the unique needs of learners.

In Morogoro, Tanzania a study carried out by Kazija in 2010 showed that the training of the teachers at the colleges of Education put them in a better position to accommodate the needs of all children with Special Educational Needs and Disabilities in the inclusive classroom.

A similar study by Khumyt (2010) also indicated that inclusive education in Egypt was not too popular but the marginal numbers of people who had had training were able to accommodate the needs of children with special educational needs and disabilities. This is evident in the finding of her study that brought to light that 89.47% out of 65 respondents responded in the affirmative with regards to issues surrounding effectively accommodating special educational needs children. It is inferred from this finding that the conduit is the exposure to the current curriculum.

Based on this, the study sought to provide evidence of the Colleges of Education tutors' perceptions on the adaptation and modification approaches for children with special educational needs and disabilities in Ghana.

3. Research design

Descriptive survey design was applied in the conduct of the study. A survey was used for the study because it enabled the researchers to ascertain respondents' perceptions on the current practices for easy description of the situation and to make intelligent recommendations to improve the situation.

3.1 Population and sample

The population for the study comprised all 38 College of Education tutors out of the 46 public Colleges of Education in Ghana totalling 1,824. However, 624 were drawn from 13 public Colleges of Education in Ashanti, Bono, Ahafo and Central Regions of Ghana. Krejcie and Morgan's (1970) table for determining sample size was used. A multistage sampling technique was employed. These included the use of a simple random (lottery method), quota, purposive sampling and convenient sampling techniques. Four regions were selected through the lottery method out of the sixteen in Ghana, hence giving the researchers Central, Bono, Ahafo and Ashanti Regions for the study. After this stage, quota technique was also employed to assign figures to number of respondents from the selected colleges in the regions. In selecting the actual respondents for the study; the researchers used the convenient sampling technique. The use of this technique resulted from the respondents' willingness to be part of the study.

3.2 Instrumentation

A self-designed questionnaire was used for the study. The questionnaire was in two main sections. Section A was on personal data of respondents such as age and gender. While section B mainly focused on the adaptation and modification approaches for children with special educational needs and disabilities. The instrument was pre-tested using 26 Holy Child College of Education tutors in the Western Region of Ghana. The pilot study was conducted to determine whether the questionnaires would be understood by the sample to be surveyed.

An introductory letter explaining the purpose of the study, soliciting co-operation of respondents and assuring them of confidentiality of information was sent to the principal of the institution for her consent and permission. Cronbach's Alpha was used by the researchers to analyse the reliability of the instrument after the pilot test. The Cronbach's co-efficient alpha for the pre-testing was .822. In all, 235 questionnaires were administered to the respondents in the actual study. However, the researchers were able to retrieve 223 questionnaires because some tutors could not return the questionnaires.

4. Results

The data were analysed to reflect the research topic. Table 1 shows the frequency distributions of respondents' responses to the items.

From Table 1, the mean for all the responses on tutors' perception on how the curriculum offered in Colleges of Education in Ghana enables pre-service teachers to adapt the general school curriculum to accommodate the needs of all children with special educational needs and disabilities in the inclusive classroom was 3.12. This lies in the score band of 2.6 – 3.5 which implies that the respondents had a good perception on how the curriculum offered in Colleges of Education in Ghana enables pre-service teachers to adapt the general school curriculum to accommodate the needs of all children with special educational needs and disabilities in the inclusive classroom.

Overall, 31(13.90%) of the respondents strongly agreed and 39(17.49%) agreed with the statement that, the curriculum teaches pre-service teachers how to adapt teaching aids to meet the needs of all children in inclusive classrooms. However, 94(42.15%) disagreed and 59(26.46%) strongly disagreed to the statement. This indicates that majority ($M = 2.5289$, $SD = 42475$) of the tutors do not support the statement, which means that teachers are not effectively taught how to make changes to their teaching aids during teaching and learning process to suit every learner in the classroom.

Concerning the statement that the curriculum teaches pre-service teachers how to modify instructional strategies to suit all children in the inclusive classroom, 48(21.52%) of the respondents strongly agreed and 86(38.57%) agreed while 53(23.77%) disagreed and 36(16.14%) strongly disagreed with the statement. This means that regular school teachers are taught how to use varied instructional strategies to teach learners in the inclusive classroom.

Table 1: College of Education Tutors Perceptions on How the Curriculum Enables Pre-Service Teachers to Adapt the General School Curriculum to Accommodate the Needs of All Children with Special Educational Needs and Disabilities

| SN | Items | Strongly Agree | | Agree | | Disagree | | Strongly Disagree | | Total | Mean | D |
|----|---|----------------|-------|-------|-------|----------|-------|-------------------|-------|-------|---------------|----------------|
| | | F | % | F | % | F | % | F | % | | | |
| 1 | It teaches pre-service teachers how to adapt teaching aids to suit the needs of all children in inclusive class. | 31 | 13.90 | 39 | 17.49 | 94 | 42.15 | 59 | 26.46 | 100 | 2.5289 | .42475 |
| 2 | It teaches pre-service teachers how to modify instructional strategies to suit all children in the inclusive classroom. | 48 | 21.52 | 86 | 38.57 | 53 | 23.77 | 36 | 16.14 | 100 | 2.8750 | .55288 |
| 3 | It teaches pre-service teachers how to modify task requirements such as changing the criteria for successful task performance or breaking each task into smaller subtask. | 73 | 32.74 | 105 | 47.09 | 28 | 12.56 | 17 | 7.62 | 100 | 3.8824 | .25176 |
| 4 | It teaches pre-service teachers how to maximize the use of instructional time in an inclusive classroom. | 38 | 17.04 | 95 | 42.60 | 71 | 31.84 | 19 | 8.52 | 100 | 2.9202 | .99403 |
| 5 | It teaches pre-service teachers how to adapt the learning environment by creating positive interactions among students to promote social acceptance of all children in inclusive class. | 54 | 24.22 | 113 | 50.67 | 35 | 15.70 | 21 | 9.42 | 100 | 3.4780 | .40516 |
| | Average | | | | | | | | | | 3.1369 | 0.52572 |

Source: Field Data.

Also, the findings from the Table 1, show that 73(32.74%) of the tutors strongly agreed and 105(47.09%) agreed with the statement that, the curriculum teaches pre-service teachers how to modify task requirements such as changing the criteria for successful task performance or breaking each task into smaller subtask, however, 28(12.56%) of the tutors disagreed and 17(7.62%) strongly disagreed with the statement. This finding indicates that majority of tutors in Colleges of Education in Ghana agreed that teacher trainees are equipped with the skills to modify task requirements or task analyse activities for children with special educational needs and disabilities in the inclusive classroom.

From Table 1, 38(17.04%) of the respondents strongly agreed and 95(42.60%) agreed to the statement that, the curriculum teaches pre-service teachers how to maximize the use of instructional time in an inclusive classroom, However, 71(31.84%) disagreed and 19(8.52%) strongly disagreed to the statement. This implies that tutors are of the view that pre-service teachers are taught how to maximize the instructional time during teaching and learning activities. The findings from Table 1 indicated that, 54(24.22%) of the tutors strongly agreed and 113(50.67%) agreed with the assertion that, the curriculum offered in Colleges of Education in Ghana teaches pre-service teachers how to adapt the learning environment by creating positive interactions among students to promote social acceptance of all children in the inclusive class while 35(15.70%) disagreed and 21(9.42%) strongly disagreed.

5. Discussion

This study sought to determine the perceptions of Colleges of Education tutors on adaptation and modification approaches for children with special educational needs and disabilities in Ghana. The results showed that the current findings of the study are consistent with a study carried out by Kazija in 2010 in Tanzania. The outcome of the study showed that the training of the teachers at the Colleges of Education put them in a better position to accommodate the needs of all children with special educational needs and disabilities in the inclusive classroom. A similar study by Khumyt (2010) also supports the current study. She maintained that inclusive education in Egypt was not too popular but the marginal numbers of people who had had training were able to accommodate the needs of children with special educational needs and disabilities. This is evident in the finding of her study that brought to light that 89.47% out of 65 respondents responded in the affirmative with regards to issues surrounding effectively accommodating children with special educational needs and disabilities. It is inferred from this finding that the conduit is the exposure to the current curriculum.

Lolovi (2011) in a study conducted in the Volta Region of Ghana is however at variance with the findings of the current study. He maintains that the curriculum was deficient in equipping teachers with the ability to accommodate the needs of children with special educational needs and disabilities. He stems his argument from the fact that 76% of the respondents maintained that there had been at least 2 instances in which they failed to accommodate the needs of children with special educational needs and disabilities.

From the findings, it can also be seen that 31(13.90%) of the respondents strongly agreed and 39(17.49%) agreed with the statement that, the curriculum teaches pre-service teachers how to adapt teaching aids to meet the needs of all children in inclusive classroom. However, 94(42.15%) disagreed and 59(26.46%) strongly disagreed to the statement. This indicates that majority ($M = 2.5289$, $SD = 42475$) of the tutors do not support the statement, which means that teachers are not effectively taught how to make changes to their teaching aids during teaching and learning process to suit every learner

in the classroom. This assertion is supported by Levitz (1996) who stated that the curriculum and educational system as a whole have failed to respond to the diverse needs of the learner population resulting in massive numbers of drop-outs, push-outs, failures and in learners being mainstreamed by default. This implies that there is no provision made for a child who is facing difficulties to access the general education curriculum in the regular classroom and therefore, tend to become a failure and consequently drop out of school.

Concerning the statement, that the curriculum teaches pre-service teachers how to modify instructional strategies to suit all children in the inclusive classroom, 48(21.52%) of the respondents strongly agreed and 86(38.57%) agreed while 53(23.77%) disagreed and 36(16.14%) strongly disagreed with the statement. This means that regular school teachers are taught how to use varied instructional strategies to teach learners in the inclusive classroom. This implies that if pre-service teachers are able to apply the knowledge, they acquire during their professional training in the inclusive classroom many learners with special educational needs and disabilities will succeed in the inclusive classroom. Children with special educational needs and disabilities require special methods of teaching in order to cope in the regular classroom. It is important to note that one teaching method adopted for teaching children with special educational needs and disabilities may not work for all categories of children with disability

Also, the findings from the Table 1, shows that 73(32.74%) of the tutors strongly agreed and 105(47.09%) agreed with the statement that, the curriculum teaches pre-service teachers how to modify task requirements such as changing the criteria for successful task performance or breaking each task into smaller subtask. However, 28(12.56%) of the tutors disagreed and 17(7.62%) strongly disagreed with the statement. This finding indicates that majority of tutors in Colleges of Education in Ghana agreed that teacher trainees are equipped with the skills to modify task requirements or task analyse activities for children with special educational needs and disabilities in the inclusive classroom. This means that general education teachers are trained not to use one approach for all learners in terms of task requirement or class activities in the inclusive class. They are taught how to task analyse activities to meet that of children with special educational needs and disabilities because these children learn better when the activity or the task is task analysed.

From Table 1, 38(17.04%) of the respondents strongly agreed and 95(42.60%) agreed to the statement that, the curriculum teaches pre-service teachers how to maximize the use of instructional time in an inclusive classroom. However, 71(31.84%) disagreed and 19(8.52%) strongly disagreed to the statement. This implies that tutors are of the view that pre-service teachers are taught how to maximize the instructional time during teaching and learning activities. The findings from Table 1 indicated that, 54(24.22%) of the tutors strongly agreed and 113(50.67%) agreed with the assertion that, the curriculum offered in Colleges of Education in Ghana teaches pre-service teachers how to adapt the learning environment by creating positive interactions among students to promote social acceptance of all children in inclusive class while 35(15.70%) disagreed

and 21(9.42%) strongly disagreed. This finding show that teachers are prepared to adapt the social environment in the inclusive classroom to ensure that is conducive for every child to learn.

6. Conclusion and recommendations

Pre-service teaching on how to do adaptations and accommodations to meet every child's needs in the inclusive classroom be intensified. This would facilitate effective inclusive education practices in the country because learners in the inclusive classroom have varied learning needs that require teachers who are equipped with the skills to adapt curriculum.

Based on the findings from the study and the conclusion, the Teacher Education Division of the Ministry of Education in collaboration with the affiliated Universities should ensure that areas such as the use of assistive devices, basic knowledge in sign language and Braille are included in the pedagogic studies.

Conflict of Interest Statement

The authors declare no conflicts of interests.

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