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To cite this article: Emmanuel Kofi Gyimah , David Sugden & Sue Pearson (2009) Inclusion of children with special educational needs in mainstream schools in Ghana: influence of teachers' and children's characteristics, International Journal of Inclusive Education, 13:8, 787-804, DOI: [10.1080/13603110802110313](https://doi.org/10.1080/13603110802110313)

To link to this article: <https://doi.org/10.1080/13603110802110313>



Published online: 27 Jul 2009.



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Inclusion of children with special educational needs in mainstream schools in Ghana: influence of teachers' and children's characteristics

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The issue of where to teach children with special educational needs (SEN) and disabilities has been a great concern as countries respond to the United Nations Educational, Scientific and Cultural Organization (UNESCO) Salamanca Statement on inclusion of 1994. In this study, the responses of 500 trained and untrained mainstream primary school teachers selected from three of the ten regions of Ghana were analysed to investigate their attitudes to including children with SEN and disabilities in mainstream schools in Ghana. These attitudes were examined alongside teachers' characteristics such as gender, age, length and level of teaching experience, and knowledge of SEN, and also the type, nature and degree of children's SEN. The results showed that teachers in Ghana were positive towards the inclusion of children with SEN and disabilities with a few reservations which are elaborated. On the basis of the findings, conclusions were drawn that the inclusion agenda should be subject to national and local interpretation, aimed at ensuring that policies and regulations on SEN are fashioned to meet local situations and standards.

Keywords: inclusion; disability; teachers' attitudes; mainstream; special educational needs; segregation; Ghana; Salamanca statement

Introduction

The Salamanca Statement (UNESCO 1994) advocated that children with special educational needs (SEN) should have access to mainstream education and that they are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society, and achieving education for all. The only exception was when there was 'compelling reasons for doing otherwise' (UNESCO 1994, 9, 44). The Statement is therefore conceived as forming the basis for inclusion and a shift from segregation (Lindsay 2003). While some countries have supported the ideology and formulated SEN policies to regulate its development and practice (IDEA 1997; Department for Education and Skills (DfES) 2001) Ghana's approach has been described as rhetorical (Avoke 2001) since the blueprint of the Ministry of Education Policies and Strategic Plans for the Education Sector of Ghana is exercising caution in its development and implementation. Teachers' circumstance is cited as one of the reasons for government's attitude creating the need for a search into how child and teacher characteristics could influence the development and implementation of the inclusion ideology in the country.

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Views on the inclusion ideology

Inclusion has been conceived as 'the extent to which a school or community welcomes pupils as full members of the group and values them for the contribution they make' (Farrell and Ainscow 2002, 3). It is meant to create equal opportunities for all children to participate in the common education (Flem, Moen, and Gudmundsdottir 2004; Mushoriwa 2001; Thomas and Loxley 2001) and does not separate individuals for whom the curriculum is adapted. Rather, it focuses on the reconstruction and of curricular provision to remove barriers to learning and participation (Centre for Studies on Inclusive Education (CSIE) 2002) and to help all children to succeed (Sebba and Ainscow 1996).

It is however observed that responses to the inclusion ideology have been diverse; some authors find support for inclusion, but others are cautious. Those in support such as Lipsky and Gartner (1996) find that children with SEN improve academically, behaviourally and socially. Peetsma et al.'s (2001) study on matched pairs of primary-aged pupils in mainstream and special education over periods of two and four years showed pupils in mainstream education made more progress in mathematics than in schools for children with learning and behavioural difficulties. Peters (2003, 4-5) writes that inclusion is 'cost efficient and cost-effective' for a country. Artiles and Dyson (2005) argue that for poorer countries separate educational subsystems for different groups of learners is inefficient non-viable. They further intimate that educating all learners in mainstream education holds out the promise of both greater efficiency and greater effectiveness.

While the Salamanca initiative has become an international buzzword, there is evidence that it is difficult in practice. Those who are sceptical about inclusion describe the inclusion agenda or ideology as contentious and complex (Thomas and Glenny 2002; Weddell 2005); vacuous and mistaken (Wilson 2000); and not 'supported by empirical evidence' (Florian 1998, 107). Warnock (2005) (who chaired the Warnock Committee of 1978) thinks the ideal of inclusion is not working and that it can be carried too far and composed of simplistic ideas.

Attitudinal studies and inclusion

Attitudinal studies on inclusion seem to suggest that inclusion is affected by the types of student educational needs and the degree to which teachers can be involved in the process (Booth and Ainscow 1998; Avramidis, Bayliss, and Burden 2000; Moltó 2003). The type of the disability and the demands it makes on the teacher influence teacher attitude (Mushoriwa 2001). Center and Ward (1987) reported that mainstream education teachers prefer children whose characteristics do not require extra instructional or management skills. Teachers are said to have the tendency to reject students with significant disabilities (Avramidis, Bayliss, and Burden 2000) for the severity of disability affects perception and expected educational outcomes. Sapon-Shevin (1996) contends how challenging it is to create a classroom that honours and respects all children and all of their differences.

The literature on inclusion indicates that children with emotional and behavioural difficulties (EBD) cause more concern and stress to teachers than other types of SEN (Avramidis, Bayliss, and Burden 2000; Clough and Lindsay 1991). A link has been suggested between the severity of a disability and teacher acceptance (Barnatt and Kabzems 1992). As a result, Gray's (1997) view is that before planning for a child's individual needs one should consider the current capabilities and the potential of all

pupils in the class. Gray states further that there should be an understanding of the disability and the effects it would have on the child and other children in the class. Thus, in the review of the literature it has been seen that teachers' attitudes to inclusion of children with SEN are affected by the disabling condition. But while most of these studies have come from Western literature where policies on SEN are available, can the same be said about Ghana where there are no clearly set out policies on SEN?

Ghana, special needs education and the inclusion agenda

Ghana was among the first countries within the community of nations to ratify the Convention on the Rights of the Child. Soon after independence on 6 March 1957 the country saw how fundamental education is and therefore made provision for free and compulsory education for all children of school-going age in the Education Act of 1961. This included children with SEN and disabilities (Okyere 2003a, b). The 1992 Constitution and the on-going Educational Reforms that began in 1987 affirmed this initiative.

The Ministry of Education and Sports is responsible for planning and implementing education programmes for all children of school-going age in the country. It performs these functions through the Ghana Education Service (GES) and Special Education Division (SpED). GES coordinates mainstream education activities, while SpED is responsible for educating and training children with special education needs. But there is little or no interaction between the two divisions (Okyere 2003a, b). The Curriculum Research and Development Division (CRDD) plans the curriculum for the schools, but no distinction is made between what should be taught in mainstream education and special schools. Individual learning needs may therefore be met depending on how flexible a school approaches the curriculum.

In 1998, 80.06% of the 63,700 teachers in primary schools were trained or qualified and only 19.94% were untrained or unqualified (Akyeampong 2003). The 2003 official data (Ghana Education Service 2003) indicated there were 12,848 primary schools and a pupil population of 2,171,585. The overall teacher population was 66,323 including the trained and untrained. The trained and untrained distribution was 76.7–23.3%, respectively. The estimated pupil–teacher ratios (PTRs) were therefore 1:33. By implication, classrooms in the country are overcrowded (Avoke 2001) and teachers have to contend with high PTRs, a trend likely to affect how teachers in the country accommodate children with SEN in the country. There is no official figure on the percentage of the population with SEN and disabilities. Gadagbui (1998) reports that as early as 1960 when the Ghana government contracted Sir John Wilson from the UK to establish the incidence and classification of individuals with disabilities for purposes of planning, 100,000 persons of the 6 million people had disabilities. The lack of clear data about the incident of SEN does impact negatively on planning provisions.

There are both public and private special schools for children with SEN and disabilities. However, it is usual for all children to begin formal education in mainstream education. They are referred to special schools or drop out of school if they are unable to cope with mainstream education work. There are special schools for children with intellectual difficulties, known locally as the mentally retarded or handicapped; deaf; blind; and recently those with learning disabilities. The degree of impairments of those attending such schools varies from moderate to profound.

'Special education' as it is known in Ghana has been in the country for the past 50 years, but Avoke (2001) reports that only a few of the population of the disabled have had education to a basic level since special schools began in the country. In Ghana's

education system the basic level is the first nine years of formal education. Avoke further points out that the medical model is used in the country to address the needs of children with SEN. The medical model only uses the child's characteristics (within-child factors or inherent characteristics) to determine educational provisions for the child with SEN. It does not take into consideration the effects the child's environment has on him or her. Children in the country are assessed and categorised. The National Assessment and Resources Centre (NARC) in Achimota, Accra, advises on assessment and educational placement. Children at risk of developmental disability are required to be referred to the centre, but there are other units in major hospitals and institutions in the country that occasionally assess children's sight and hearing. Gyimah (2000) reported that most parents preferred to take their children to hospitals instead of the designated NARC for assessment.

Though the departments of social welfare and health are required to assist in assessing children, collaboration is little or non-existent. Assessment is usually not multidisciplinary to allow for the involvement of professionals in fields such as health, social welfare and education, and the needs of the child are not comprehensively assessed. Educational placement is done using the type, nature and degree of the disability as the main criteria. Avoke (2001) pointed out that in spite of a shift towards inclusion, institutionalisation is an entrenched practice. Due largely to mislabelling, it is common to find children with various degrees of disability conditions referred to special schools without any regard of the degree of disability. Once such placement is done in a special school, there is often no exit point for the child (Gyimah 2001). The institution becomes the child's new home and permanent abode. This trend does very little towards harnessing potentialities and making individual children become useful to themselves and their communities at large. But 'the time when a child's development was viewed primarily as unalterable and fixed is far behind us' (Jongmans 2005, 162). Dockrell and Lindsay (2000) recognised that inclusive policies do not combine easily with medical models of diagnosis.

The blueprint of the Ministry of Education Policies and Strategic Plans for the Education Sector of Ghana (Casely-Hayford and Lynch 2003) and the 1992 Constitution make provision for inclusive education but the Ministry is cautious about its development and implementation. It is stated in the blueprint that:

the curriculum policy takes into account of the need not to make excessive demands on teachers relative to their circumstances and the need not to make excessive demands on the resources of the government or of the parents. (50)

There was no elaboration on teachers' 'circumstances'. But this might mean the general lack of educational resources such as teaching and learning materials and most importantly teachers' lack of confidence in teaching children with SEN. Avoke and Hayford (2000) reported that only a few of their teacher participants had knowledge of SEN methodology and principles. Despite Constitutional provision for access, participation and equal opportunity for all children, the government's approach to the development and implementation of inclusion is centrally stage-based. Inclusion is to be developed region by region for the next ten years. Every year, between five and ten schools would be selected from every district within a region for an intensive inclusive education programme. Itinerant teachers based at these schools are to be the facilitators (Casely-Hayford and Lynch 2003, 66). Apart from this, the Special Education Division (SpED) has been entrusted with the responsibility of implementing inclusive education programmes besides their traditional role of supervising and coordinating programmes

for persons with SEN and disabilities. Elliot and McKenney (1998) noted that before researching and choosing approaches to inclusion it is important to determine what attitudes individual staff members have about students with SEN.

Research aim

The present paper is an extension of Avoke's (2001) paper on the development of special education in Ghana, but puts particular emphasis on attitudes to the inclusion agenda since he described the government's attitude to inclusion as 'rhetoric' (29, 34). It investigates the effect, type, nature, and degree of SEN and teachers' characteristics have on this argument, while establishing current trends in the country as far as the inclusion ideology is concerned (UNESCO 1994). It is an aspect of a broader study on teachers' attitudes to inclusion in Ghana to probe into the type(s) of SEN teachers in the country would be positive to mainstream. The study therefore addresses two main questions. Firstly, how do child characteristics affect teachers' attitudes to inclusion? These child characteristics are considered from the type, nature and degree of SEN. Secondly, how do teachers' characteristics affect their attitudes to inclusion? The teachers' characteristics include gender, age, qualification, length of teaching experience, level of experience, and knowledge of SEN.

Method

The study was attitudinal research soliciting information from teachers in mainstream education primary schools in Ghana to determine the educational placement preference they would make for children with SEN and disabilities. Emanuelsson, Haug and Persson (2005) point out that 'it is in primary education that inclusive education is most developed, and it is here that the challenges are most visible' (114). Since the intention was not to investigate attitudes of teachers in special schools, they were deliberately excluded from the study.

The research participants were composed of a total of 540 trained and untrained teachers who were selected from three of the ten regions of Ghana using random sampling techniques. There were 500 (92.6%) who returned their questionnaire for statistical analysis. The selected regions were Northern Region, Ashanti Region and Central Region and, respectively, selected from the three traditional zones of Northern, Central and Southern zones of the country to make it representative.

The questionnaire, mainly composed of close-ended-type of items, solicited information on teachers' background data including gender, age range, qualification, length and level of teaching experience, and knowledge of SEN. Also, there was a five-point scale numbered from 1 to 5 on the types of educational placement options teachers were to choose for ten categories of children with SEN and disabilities. The numbers 1 to 5 represented the following:

- (1) I can teach them without any help from others.
- (2) I can teach them when I consult experts for information on teaching strategies.
- (3) I can teach them when there are special education teachers to work side by side with me in the classroom.
- (4) I can teach them when there is a resource room service to complement what I teach them.
- (5) None of the above, I think special schools could best serve their needs.

In selecting the categories of SEN, the researchers were aware of the debates surrounding categorisation. They realised that categorisation, like labelling, has received its criticism (Hunt and Marshall 2002) since children 'rarely fit categorical descriptions of difficulty' (Florian 2003, 102). Most importantly they found that not all disabilities give rise to special educational needs, nor are all special educational needs a result of a disability (Beveridge 1999). The authors justified the use of categories in three ways. The first was the nature of the study which was exploring types of children teachers would include or segregate. The study could not have been carried out without identifying some categories. Further, Adams, Swain and Clark (2000) argue that whatever changes the notion of special educational needs has brought, the elimination of categorisation has not been one of them. They state: 'the elimination of categorization, however, has been unsuccessful' (234). Lastly, it was recognised that the country uses categories due to dependence on the American model of categorisation (Avoke 2001). In order to ensure reliable data, the commonly used categories were included. The ten categories were: mild-to-moderate intellectual difficulties; severe-to-profound intellectual difficulties; emotional and behavioural difficulties; physical disorders (e.g. a child who uses wheelchair); health disorders (e.g. asthma, diabetes, sickle cell, etc.); deafness; hard of hearing; blindness; low vision (partially sighted); and speech-and-language disorder. The first author self-administered and retrieved questionnaire instruments from Ghana.

Results

For purposes of clarity and convenience, the five educational placement options were recoded into three levels in analysing the data using teachers' preferred type of educational placement for children with SEN. The three levels were denoted by: 'mainstream without support' for educational placement option 1; 'mainstream with support' for options 2–4; and 'segregation' for option 3.

Type of SEN and teachers' attitudes

The results show that the type of SEN and disability affected teachers' preference of level of support. In the 'mainstream without support' (see the summary in Table 1) teachers were more positive towards three of the SEN categories. These were as follows:

- Mild-to-moderate intellectual difficulties (275 (55%)).
- Health disorders (228 (45.6)).
- Physical disorders (275 (55%)).

The SEN categories teachers were least prepared to teach in the 'mainstream without support' were:

- Blind (10 (2%)).
- Deaf (17 (3.4)).
- Severe-to-profound intellectual difficulties (46 (9.2%)).

In the 'mainstream with support' the trend was towards five of the SEN categories, namely:

Table 1. Summary of teachers' scores on preference of educational provision for ten categories of children with SEN ($n = 499$).

SEN category	<i>n</i>	Mainstream without any support		Mainstream with support		Segregation	
		Frequency	%	Frequency	%	Frequency	%
Mild-to-moderate intellectual difficulties	499	275	55.0	200	40	24	4.8
Health disorders	499	228	45.6	212	42.4	59	11.8
Physical disorders	499	275	55.0	162	32.4	62	12.4
Severe-to-profound intellectual difficulties	499	46	9.2	317	63.4	136	27.2
Emotional and behavioural difficulties	499	184	36.8	280	56.0	35	7.0
Hard of hearing	499	111	22.2	251	50.2	137	27.4
Low vision	497	183	36.6	256	51.2	58	11.6
Speech-and-language difficulties	499	103	20.6	280	56.0	116	23.2
Deafness	499	17	3.4	146	29.2	336	67.2
Blindness	498	10	2.0	121	24.2	367	73.4

- Severe-to-profound intellectual difficulties (317 (63.4%)).
- Emotional and behavioural difficulties (280 (56%)).
- Hard of hearing (251 (50.2%)).
- Low vision or partially sighted (256 (51.2%)).
- Speech-and-language difficulties (280 (56%)).

Teachers saw that the severe-to-profound intellectual difficulties required the most support.

The teachers mostly identified two of the SEN categories for segregation. There were more than two-thirds of the teachers who indicated that the deaf (67.2%) and the blind (73.4%) should be placed in special school and thus segregated. The respondents who reported that they could teach the deaf or the blind in the mainstream were less than 4%. Also, about one-third of the respondents reported that they would segregate the severe-to-profound intellectual difficulties and hard of hearing.

Nature and degree of SEN on teachers' attitudes

There was an indication that both the nature and severity of a disability affected how teachers would be positive or negative towards children with SEN in mainstream education (see the summary in Table 1). A comparison of the results of the ten SEN categories show that teachers were more positive for mainstreaming children with mild-to-moderate intellectual difficulties than those with severe-to-profound intellectual difficulties. Similarly, teachers were more positive to the hard of hearing than the deaf; and more favourable of the low vision than the blind.

Gender and teacher attitudes

Out of the $n = 500$ who responded to the item, 283 (56.6%) were female teachers and 117 (43.4%) were male. As can be observed in Table 2, the raw data created the

Table 2. Teachers' preferred type of educational provision by gender ($n = 500$).

Educational provision	Male (%)	Female (%)
Mainstream without support	28.2	29.2
Mainstream plus support	43.4	45.4
Segregation	28.2	25.2
Total (approximate)	100	100

impression that more female teachers supported mainstream, that is, with and without support, while more of the male teachers' favoured segregation. In the Chi-squared test, it was only in physical disorders: $\chi^2 = 6.165$: $p < 0.05$ and health disorders and $\chi^2 = 8.330$: $p < 0.05$ that significant statistical difference was observed between male and female teachers with most of the male teachers having a preference for segregation.

Age and attitudes

The age range category were: 21–30 years, 179 (35.8%); 31–40 years, 139 (27.8%), 41–50 years, 121 (24.2%); and 51–60+ years, 58 (11.6%). Evidence from the vertical bar graph (Figure 1) indicated that age had no influence on teachers' attitudes to inclusion. In the mainstream without support, for example, there was less difference in the scores of teachers aged between 51 and 60 years (32%) and those between 31 and 40 years (31.2%). Similarly, in segregation the score of the 21–30-year age group (28%) was not much different from the others. In the Chi-squared tests to verify any differences between teachers' on the basis of age, at both 0.01 and 0.05 levels, none was found to be statistically significant.

Teachers' qualification and attitudes

Of the $n = 500$, 478 responded to the item. The A 3 Year and A 4 Year groups formed about 71% of the trained respondents; while degree and diploma holders formed about 5% (5%). Of the untrained, the West African Senior Secondary School Certificate Examination (WASSSCE) category formed about 10%, General Certificate of Examination Ordinary Level (GCE O'L) and Advanced Level were about 8% and Basic School Certificate Examination (BECE) formed 6%. Between the three educational provisions, no difference was noticed between the trained and untrained in mainstream with support. However, the raw scores (see the summary in Table 3) did not give any impression that the trained (29.2%) were more supportive of the 'mainstream without support' than the untrained (26.2%) in spite of more of the untrained (27.2%) supporting segregation than the trained (26.2%). It was at 0.05 levels that two of the SEN categories became significant. These were mild-to-moderate intellectual difficulties $\chi^2 = 7.327$: $p < 0.05$ and severe-to-profound intellectual difficulties $\chi^2 = 6.888$: $p < 0.05$ with the trained being more in favour of mainstreaming the mild-to-moderate intellectual difficulties and untrained, favouring the severe-to-profound intellectual difficulties.

Length of teachers' teaching experience and attitudes

Of the $n = 498$ who provided information on their length of teaching experience, 10% reported that they had less than 1 year of teaching experience. Those with 1–3

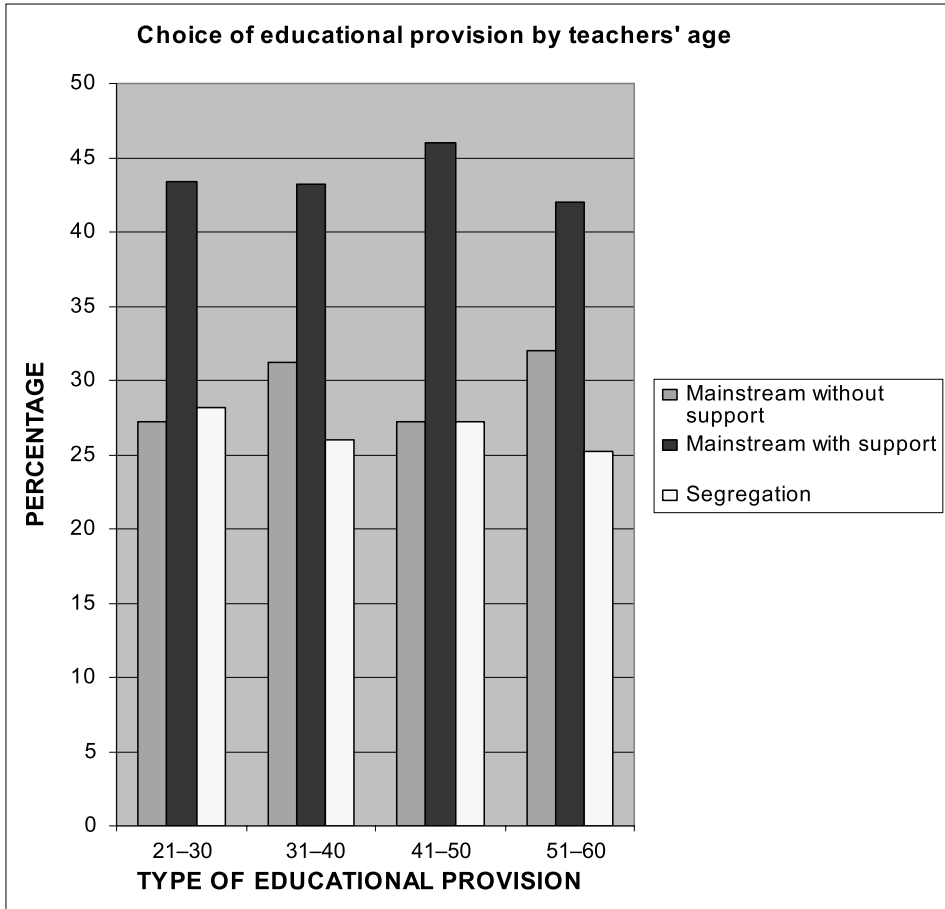


Figure 1. Teachers' preferred type of educational provision by age ($n = 497$).

and 4–6 years of teaching experience formed about 15% and 16%, respectively; those with 7–9 years formed 9.4%; and about 50% had had more than 10 years of teaching experience. There was evidence that length of teachers' teaching experience had no influence on their attitudes to inclusion (Figure 2). In the mainstream with support, for instance, even though teachers with 1–3 years of teaching experience had the highest score of 46.5%, the score was not different from the 46% which those with 7–9 years of experience obtained. And in the area of segregation, while those with less than 1 year of teaching experience obtained a score of 31%, those with 4–6 years had 29%, making it difficult to state that the length of teaching experience had

Table 3. Teachers' preferred type of educational provision by qualification ($n = 478$).

Educational provision	Trained (%)	Untrained (%)
Mainstream without support	29.2	26.2
Mainstream plus support	45.2	46.2
Segregation	26.2	27.2
Total (approximate)	100	100

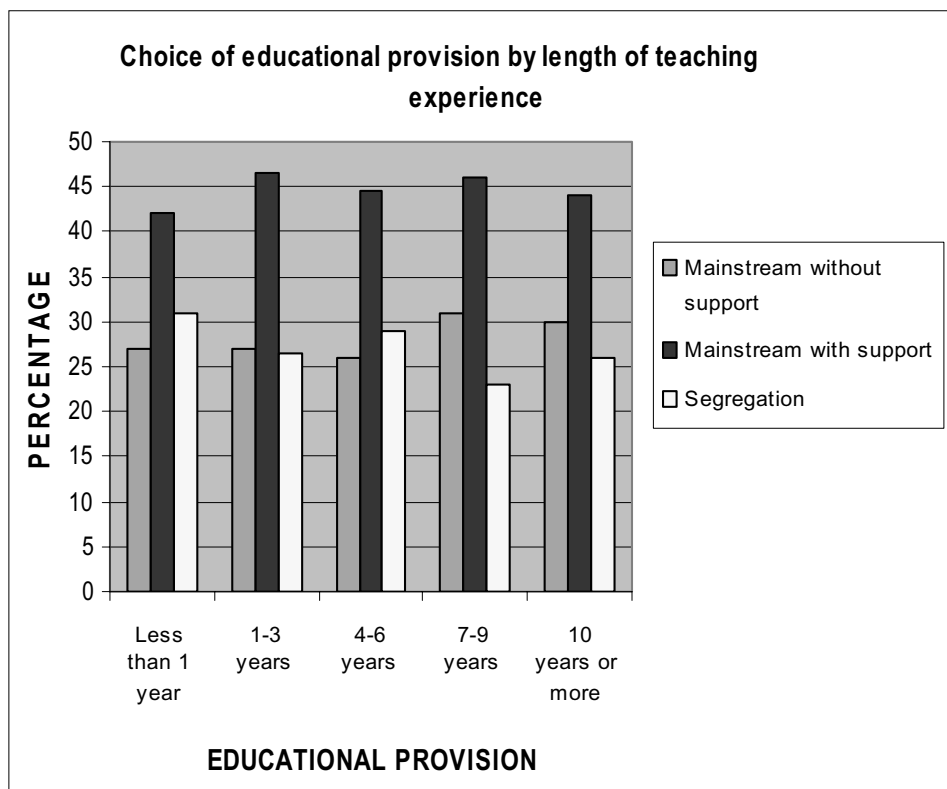


Figure 2. Teachers' preferred type of educational provision by length of teaching experience ($n = 498$).

an influence on accepting or not accepting children with SEN for inclusion. In the Chi-square test no significant difference was observed in any of the SEN categories at both the 0.01 and 0.05 levels.

Level of experience of working with children with SEN and attitudes

The respondents ($n = 500$) who reported that they had in their teaching career taught children with special educational needs (SEN) were 337 (67.4%). Those who had not taught the children were 163 (32.6%). The evidence (Table 4) was that teachers who had taught children with SEN were more supportive of the mainstream without support than those who had not. In segregation, those who had not taught were more positive

Table 4. Teachers' preferred type of educational provision by level of experience ($n = 500$).

Educational provision	Taught children with SEN (%)	Not taught children with SEN (%)
Mainstream without support	31	23
Mainstream plus support	44	47
Segregation	25	30
Total (approximate)	100	100

than those who had. In the Chi-square tests a significant statistical difference was found in four of the SEN categories. These were emotional and behavioural difficulties, $\chi^2 = 20.539$; $p < 0.01$; hard of hearing, $\chi^2 = 14.404$; $p < 0.01$; low vision, $\chi^2 = 14.400$; $p < 0.01$; and speech-and-language difficulties, $\chi^2 = 13.886$; $p < 0.01$. In these categories teachers who had taught the children had a more positive attitude towards their inclusion in mainstream education.

Knowledge of SEN and attitudes

Out of the $n = 500$ who answered this item, 335 (67%) reported they had knowledge about how to teach children with special educational needs, but 165 (33%) said they had no knowledge. The summary in Table 5 shows that teachers who knew how to teach children with SEN were more in favour of the mainstream without support than those who did not know how to teach them. No difference was found between the two groups in the mainstream with support. In segregation it was found that those who did not know had a higher score than those who knew indicating that teachers who did not know how to teach children with SEN would prefer the children to be segregated. In the Chi-squared tests a significant statistical difference was found in three of the SEN categories. These were mild-to-moderate intellectual difficulties, $\chi^2 = 14.723$; $p < 0.01$; emotional and behavioural difficulties, $\chi^2 = 11.385$; $p < 0.01$; and hard of hearing, $\chi^2 = 9.722$; $p < 0.01$. Teachers who had knowledge had a better attitude to the mainstreaming of the three categories.

Discussion

The study aimed at investigating the effects type, nature and degree of a child's SEN and the characteristics of mainstream primary school teachers in Ghana had on their attitudes to the inclusion agenda. Ten categories of children with SEN and disabilities were selected and data were analysed on the basis of teachers' preferred level of support.

The current investigation showed that teachers were generally positive towards the inclusion of a majority of children with different types of SEN in mainstream education. The teachers were positive about mainstreaming the mild-to-moderate intellectual difficulties, emotional and behavioural difficulties, physical and health disorders, low vision and speech-and-language difficulties. However, unlike the popular view that children with emotional and behavioural difficulties were teachers' greatest concern (Audit Commission 2002; Avramidis, Bayliss, and Burden 2000; Clough and Lindsay 1991), teachers in Ghana did not find children with emotional and behavioural difficulties problematic. Rather, children with deafness and blindness, severe-to-profound intellectual difficulties, and to some extent the hard of hearing were their greatest concern.

Table 5. Teachers' preferred type of educational provision by knowledge of SEN ($n = 500$).

Educational provision	Knew how to teach (%)	Did not know how to teach (%)
Mainstream without support	31	25
Mainstream plus support	44	45
Segregation	25	30
Total	100	100

In comparing gender differences, the results showed that the attitudes of male teachers were not significantly different from their female counterparts. Apart from physical and health disorders, none of the SEN categories was significant. The findings therefore failed to support the study of Avramidis, Bayliss and Burden (2000) who reported that female teachers had a more positive attitude to children with SEN than their male counterparts. Okyere (2003a, b) and Avoke (2001) indicated that the people of Ghana in general have negative attitudes towards children with disabilities. Okyere (2003a, b) further points out that many parents would not like their children to learn alongside persons with SEN and disabilities in the same classroom due to negative beliefs. Perhaps this might have contributed to the lack of difference in the two groups. But it greatly suggests that if teachers are to develop positive attitudes to children with SEN and disabilities, then the education of teachers and the general population is required. Sugden and Chambers (2005) affirmed the inseparable relationship existing between the development of the child and the environment and suggested that any intervention process must take this into consideration.

Teachers' age was analysed and the results were found to be inconsistent with previous findings since no statistically significant difference was found among the teachers of various ages. This means that teachers would exhibit the same attitudes to children with SEN and disabilities no matter their age(s). A number of studies indicate that younger teachers are more supportive of integration (Center and Ward 1987; Clough and Lindsay 1991). Probably, the Ghana government's rhetorical (Avoke 2001) approach to inclusion is a factor. It appears that newly qualified or younger teachers are more likely to support the development and implementation of inclusion if government in particular and stakeholders support it (Norwich, Goodchild, and Lloyd 2001; Avramidis, Bayliss, and Burden 2000).

On teacher qualification, Gersten and Woodward (1990) have argued that without SEN competencies and skills to accommodate children with SEN, children's progress is likely to be compromised if they find themselves in mainstream schools. But in the current investigation no statistically significant difference was found between the trained and untrained in the ten SEN and disability categories. The exceptions were the mild-to-moderate intellectual difficulties and severe-to-profound intellectual difficulties. In Ghana it is common knowledge that teachers graduate from their institutions with little or no knowledge of SEN (Avoke and Hayford 2000). Mediocrity in the preparation of teachers means that the trained are not advantaged above the untrained. The finding is significant in that it brings to the fore the issue of quality training. Though the review of Norwich and Lewis (2001) found no SEN-specific pedagogy in teaching various ranges of children with SEN and disabilities, they recognised that 'more intensive and explicit teaching is relevant to pupils with different patterns and degrees of difficulties in learning' (325).

On teacher length of teaching experience, the present study did not support any of the previous findings that teachers' experience has a positive effect on their attitudes. Avramidis, Bayliss and Burden (2000) reported that teachers' experience has positive effects on inclusion and that teachers who have implemented inclusion programmes and therefore have active experience were more positive about inclusion. The findings however support Stephens and Braun's (1980), Forlin's (1995) and Gilada, Reiter and Leyser's (2003) notion that a teacher's teaching experience has no effect on his or her attitude to teaching children with SEN and disabilities. In their studies they found that teachers who had taught for several years were less supportive of inclusion. Perhaps a

lack of inclusion policy wholly implemented in all schools in Ghana accounts for why no difference was found in the current investigation.

On the issue of teachers' level of experience, that is whether a teacher had taught children with SEN and disability, a significant statistical difference was found between teachers who had taught and those who had not taught children with SEN and disabilities. Some writers have reported that the more a teacher has the chance to interact with a child with SEN, the better their attitude (Yuker 1988; Fazio 1989; Jones, Wint and Ellis 1990; Leyser, Kapperman and Keller 1994; Fazio and Roskos-Ewoldsen 1994; Hastings et al. 1996). To some extent, therefore, this investigation supported previous findings. Thus for children with SEN and disabilities, teachers are likely to develop a more positive attitude towards them when they have had the chance to interact and teach them.

However in interpreting the results there should be some caution for it was only in two-fifths of the cases that statistically significant differences were found. There was no difference between the two groups of teachers in teaching children with mild-to-moderate intellectual difficulties, severe-to-profound intellectual difficulties, physical disorders, health disorders, deafness, and blindness. This might mean that experience with children with SEN and disabilities in terms of teaching them may or may not be critical and that there may be other factors teachers might consider if they are required to teach children with various ranges of SEN in the mainstream. But this would warrant further research which future studies could explore.

Lastly, in the results of teachers' knowledge of SEN, differences were found in some of the SEN categories. But in interpreting the results, care should be taken since it was only in three-tenths of the cases that differences were noticed between those who knew how to teach and those who did not know how to teach children with SEN and disabilities. Avramidis, Bayliss and Burden (2000) found that this area has attracted considerable attention. For instance, Cornoldi et al.'s (1998) argument that teachers may favour inclusion without feeling they have had training. However, evidence also exists that teachers require knowledge and expertise to be able to meet the needs of children with SEN and disabilities (Gersten and Woodward 1990; Lewis and Norwich 1999). Significantly, the finding highlights the importance for researchers to continue to engage in more research in this area.

Conclusion and implication for future studies

The study investigated whether a child's type, nature, and degree of SEN and teachers' gender, age, qualification, length and level of teaching experience had any effect on their choice of educational provision for children with SEN and disabilities. There was evidence in the investigation that the type, nature and degree of SEN affected teachers' choice of a child for inclusion. But unlike the dominant view that children with EBD were teachers' greatest concern, the current study found those with sensory difficulties (that is the deaf and the blind) and severe-to-profound intellectual difficulties teachers' main concern. What the current study shows is that cultural and historical contexts mediate the interpretation of inclusion and therefore policies need to be generated rather than transplanted. The study therefore highlights the need for countries to interpret the inclusion agenda from local perspectives and fashion policies and regulations on SEN to meet local situations and standards. It is important to welcome inclusion as an international agenda, but its development and implementation must be left in the hands of individual countries. It may therefore be meaningful for individual

countries not only to identify where their barriers to inclusion are, but also to plan strategies to remove them.

In Ghana the findings have implications not only on the inclusion agenda (UNESCO 1994), and the manner the government of the country has responded to it, but most important what is needed to facilitate its development and implementation. A call for policy change becomes necessary since without a change to reflect teachers' current attitudes, pushing practice forward may be hindered. However, changing educational policy to favour inclusive education is not an easy task for Ainscow (2005) intimated that policy documents, conferences and in-service courses do not lead to significant changes in thinking and practice.

Nonetheless, it may be necessary for the government of Ghana as a matter of importance to take advantage of the enthusiasm teachers in the country have shown towards inclusive education by further re-prioritising the curriculum and ensuring its geared towards inclusive policies.

In doing this, teachers must be actively involved in the process of developing and implementing inclusive education to avoid the example of Spain where inclusion failed to work because policy on inclusion was imposed on teachers (Moltó 2003). If teachers can be effectively involved in the process, then the findings have implications on their having information on SEN and working with a flexible school curriculum. Again, they should know what role they can play to assess individual children's special educational need; and to have access to resources (in terms of teaching and learning materials) to accommodate children with SEN and disabilities.

Information on children with SEN would enable the teachers to adopt effective interventions. It means that in preparing teachers to teach in schools the training should involve knowledge and understanding of the nature and causes of disabilities and their associated characteristics. Teachers would know what to add to or take away from the school curriculum so that the child can access and participate in classroom activities. The information must not only focus on cognitive, but also most importantly the affective domain. It should challenge their beliefs and attitudes and help them accommodate children with SEN in the mainstream. If teachers lack the information, they are likely to reject children with SEN and disabilities.

Teachers should have the privilege to work with flexible school curriculum. Stainback et al. (1996) cautioned teachers not to assume that the general class curriculum is non-functional for some students. Ainscow (1997) pointed out that the classroom and curriculum provision are important factors in moving away from the deficit model and creating a classroom that honours all. All students can benefit from it if the right approach is adopted. But while recognising that there is no SEN-specific pedagogy (Lewis and Norwich 1999), Rose (2002) suggests an urgent need to focus attention on teaching approaches which help children with SEN and disabilities to perform effectively in mainstream classrooms. Thus, steps should be taken by the government to ensure that schools adapt their curriculum, teaching, and organization to stimulate efficient and effective learning for these pupils. If the school curriculum is flexible enough, it can cater for diversity.

More importantly, the study highlights the importance to teach the skill of assessing children's SEN. It is important to turn away from the medical or deficit model (Avoke 2001) to the ecosystemic or ecological perspective since many environmental forces interact with the child (Bronfenbrenner 1989; Kirk, Gallagher, and Anastasiow 2000; Sugden and Chambers 2005; Mitchell 2005). In this model both the child's social environment and within-child factors are assessed to meet their needs. It allows

for the involvement of other stakeholders in assessing and meeting the needs of children with SEN. Teamwork is prerequisite. The cooperation and collaboration of multi-agency staff such as personnel from education, health, social services, psychology and counselling and, most importantly, parents could be brought together to meet the needs of the child. Parents in particular have to be encouraged to be on board since hold in their hands key information about their children.

The importance of teaching and learning materials cannot be over-emphasized. Most children learn well if there are teaching and learning materials. With sufficient resources, both teachers and children can work effectively and efficiently in the teaching and learning environment. It is therefore important for the government and non-governmental organizations to fund education sufficiently through the acquisition of teaching and learning materials to ease teaching and learning.

Acknowledgements

The authors are thankful to the participating teachers and authorities of the Ministry of Education, Science and Sports in Ghana for granting permission for the research to be carried out in selected schools in the country.

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