

INVESTIGATING INCLUSIVE EDUCATION PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN THE WASSA AMENFI WEST DISTRICT, GHANA

ABSTRACT

This article presents findings on the current status of inclusive education practices in Wassa Amenfi West District in the Western Region of Ghana. The population comprised in-service teachers in the country. The key objective of the study was to survey the views of teachers on the extent to which the pilot inclusive education project has been implemented in the District after the implementation of Inclusive Education in the country. The approach to the study is quantitative with the cross-sectional descriptive as its design. We collected data from 50 teachers of inclusive primary schools in the Wassa Amenfi West District. Data analysis involved percentages and frequencies of multiple-scaled items. Findings revealed that teachers adapt the curriculum in diverse ways. The schools' environments somewhat promoted access for learners with disabilities. Teachers had knowledge in identifying learners with special needs in the classroom but admitted that they were deficient in skills in Individualised Education Plans (IEP). It can be concluded a lot more needs to be done in terms of infrastructural modification as well as training of teachers, especially, in IEP preparation. It is suggested solutions to improve the current practices will require whole-school professional development and the provision of specialised equipment and materials.

Keywords: *Inclusive education, implementation, professional development, curriculum adaptation, infrastructural modification, Ghana*

1. INTRODUCTION

“The benefits of inclusive practice to all learners, especially those with special educational needs may include increased friendship, opportunities for peer support, and improved acceptance” (Ackah-Jnr, 2016). “Investigating inclusive practices of schools can provide useful information on benefits deriving from inclusive education and identification of barriers. Inclusive Education aims to provide quality and accessible education for all and strives to remove, as much as possible, barriers that lead to exclusion (United Nations Education, Scientific and Cultural Organisation” [UNESCO] (2009). “It is an ongoing process aimed at offering quality education for all while respecting diversity and the different needs, abilities, characteristics and learning expectations of the learners and communities, eliminating all forms of discrimination” (UNESCO] (2009). “It requires ensuring access and learning to every learner including economic impoverished background learners with special educational needs” (Asare, Ayerakwa, Mills, Oppong & Senadza, 2019).

Gadagbui (2008) argues that “the policy of inclusive education in Ghana’s education system is not a new development; it dates back to the Accelerated Development Plan (ADP) of 1951”. “The ADP made primary education accessible and universal to all children in Ghana, independent of their abilities or disabilities. From then on, various education acts and legal frameworks have been put in place to take care of the educational needs of all Ghanaian children, especially the individuals with disabilities and the disadvantaged in the society” (Gadagbui,

2008). “Those acts and frameworks include the 1961 Education Act, the 1992 Constitution of Ghana, the Free Compulsory Universal Basic Education (FCUBE) Policy (Article 25a), the Children’s Act (560) of 1998, the National Disability Policy of 2000, the government Education Strategic Plan (ESP) 2003-2015. Others are the Special Educational Needs (SEN) Policy Framework of 2005, Persons with Disability Act (PDA) 715 of 2006, and the Education Act (778) of 2007. Finally the Inclusive education Act (2015) also” (Agbenyega, 2007; Anthony, 2009; Casely-Hayford, Quansah, Tetteh, Adams, & Adams, 2011; Kuyini & Abosi, 2014).

Evidence indicates that the Ministry of Education, Science and Sports (MOESS) adopted inclusive education in 2003/2004 academic year as the main principle which will inform the direction for special educational provisions in Ghana, (Gadagbui, 2003). Consequently, the Ministry’s strategic plan for 2010-2020 was implemented to place all children with special educational need and disabilities into regular schools (MoE, 2015). The inclusive education practices were piloted in nationwide (Hanford, 2013). This programme is currently running in all the regions in Ghana, and in Wassa Amenfi West District, seven schools are practising inclusive education as a pilot project. In implementing inclusive education, the government is enjoined to train staff, make modifications in infrastructural facilities and encourage special educators to adapt the curriculum, in order to meet the learning needs of all categories of children.

1.1 Problem Statement

“Data from 2021 Census revealed that there is an approximately 5%-point increase in people with disabilities compared to previous data. The data also reported that there is an approximately 7,794,740 Ghanaian children aged 5–15 of school going-age had various forms of difficulties in performing activities” (Ghana Statistical Service, 2021). “The population is huge and might even be more because information on persons with special educational needs and disabilities is often not disclosed in Ghanaian cultural context as these children are at a high risk of exclusion. The success of implementing inclusive education is heavily dependent on the availability of staff with inclusive knowledge, curriculum modification, infrastructural modifications and other related services”(Ackah-Jnr, 2022; Agbenyega & Klibthong, 2022; Hoppey & McLeskey, 2013) (Ackah-Jnr & Danso, 2019; Gyimah, 2021; and attitudes (Opoku-Nkoom, 2010). In Ghanaian schools, some staff expresses negative attitudes towards inclusive education. For example, some teachers feel unprepared for the task of inclusion (Opoku-Nkoom, 2010; Sharma, 2018); and others believes inclusion is the responsibility of others.(Ackah-Jnr & Udah, 2021). Despite solid policy efforts made by the government, it appears the extent to which it has been done remains elusive (Ackah-Jnr, 2022; Amoako, Attia, Awini, & Denteh, 2021; Casely-Hayford, Quansah, Tetteh, Adams, & Adams, 2011; Gyimah & Amoako, 2016; Kuyini & Abosi, 2014). Consequently, this study is intended to investigate the extent to which the pilot inclusive education project in the Wassa Amenfi West District has been implemented.

2. LITERATURE REVIEW

One determinant factor of inclusive education practices is curriculum adaptation. Curriculum adaptation means that beyond mainstreaming children with disabilities, adaptation is done in content, instruction and assessment practices so that all children can benefit and engage in core academic experiences and learning (Villa & Thousand, 2003). Adaptive instruction is a way and form of responding to different learning needs of learners during instruction (Kuyini & Abosi, 2014). Adaptations usually require more teacher effort and time than simply changing instructional methods or access as in an accommodation. Unfortunately, majority of teachers

among basic schools lack effective adaptation and modification strategies of the curriculum for learners with special educational needs and disabilities and therefore are unable to provide the needed support for this category of persons. (Gyimah & Amoako, 2016).

Infrastructure modification is a key determinant factor of inclusive education implementation. Ghanaian teachers were well aware of the concept of inclusive education, but inadequate infrastructure impeded the implementation of inclusive education (Ocloo & Subbey, 2008). The Ghana Education Service is concerned about the inaccessible and the unsafe environment in many learning centres; hence, it is conceptualised as a barrier to learning and development that need to be removed (Ocloo & Subbey, 2008). It is essential to provide the resources and facilities to offer opportunities for learners with disabilities (Agbenyega, 2007). Ghana Education Service [GES] (2004) supported this argument that without infrastructure and more, implementing, achieving, and practicing Inclusive Education will be elusive. Empirical evidence reveals that facilities were less accessible to all learners in Ghanaian schools (Opoku-Nkoom & Ackah-jnr, 2023; Owusu-Amoako, 2015)). In order to provide inclusive education, the physical environment needs to be safe and accessible to all learners, the school needs to be structured in such a way as to minimize the effects of individual learning differences in achievement Adequate and appropriate lighting in inclusive schools, and provision of adequate and appropriate acoustic levels in inclusive schools (Bennetts & Flynn, 2002).

Moreover, professional development is a determinant factor of implementing inclusive education. Effective inclusion of learners with special needs in regular classrooms in their neighbourhood schools presents multiple challenges to regular classroom teachers. He says that experience has proven that regular teachers require systematic and extensive training to successfully include students with special needs (Naylor, 2005). Naylor notes that one area that has been established by studies is the role of classroom teachers in promoting and achieving inclusive school experiences. While teacher capacity is convincingly linked to the success of inclusive education, many teachers believe that the available teacher preparation remains inadequate despite government's mandated policies of inclusive Education. If schools are to be successful in assessing learning outcomes of students, teachers are to develop a positive attitude towards inclusive education, they must first be educated, trained, and supported (Kuyini, 2010). In Ghana, the Education Service implements educational policies for the state through classroom teachers (Ministry of Education, 2012). The role of the Ghanaian teacher in educational policy implementation is in line with the view of Ainscow (2007). Ainscow emphasized that teachers have a key role in the change process as they have to change their attitudes, ways of working, materials used and their cooperation with other professionals in and outside the classroom, among other things. Pace (2003) acknowledges the importance of teacher attitudes towards inclusion as reflected by the findings of numerous studies conducted in that field. Knowledge to adapt the curriculum and inclusive knowledge among teachers are limited ((Ocloo & Subbey 2008 ; Opoku-Nkoom, 2010; Sharma, 2018; Opoku-Nkoom & Ackah-jnr, 2023). Suggestions to make inclusive education effective include professional development for among all staff (Opoku-Nkoom & Ackah-jnr, 2023). Consequently, the key objective of the study was to investigate the extent to which the pilot inclusive education project in the Wassa Amenfi West District been implemented. The study was hinged on the following research questions:

- 1 How do teachers adopt the school curriculum to promote inclusive education in selected pilot inclusive schools in Wassa Amenfi West?

- 2 How does teachers modify school infrastructural facilities to accommodate children with special needs in the pilot inclusive schools in Wassa Amenfi West?
- 3 How prepared are teachers towards the inclusive practices to meet the individual needs of all learners in the pilot inclusive schools in Wassa Amenfi West?

3 MATERIALS AND METHODS

A cross sectional descriptive survey design was used in the conduct of the study. The population was made up of 48 males and 32 females. The study area of the study covered 7 schools in 4 communities in Wassa Amenfi West where inclusive education is being piloted. A simple random sampling technique was applied to select five out of the seven pilots' inclusive schools in the Wassa Amenfi West District and fifty respondents for the study. This number of respondents constituted 62.5% of the entire population of 80 teachers in the selected schools. Respondents were aged between 23 years and 54 years and had up to five years teaching experience in inclusive classroom from Kindergarten 1 to basic 9. Some of the teachers had received some amount of in-service/pre-service training on inclusive practices, others just had Introduction to Special Education taught at the college of education; others had not received any training at all. Their academic qualification range from Senior High School Certificate to Bachelor's Degree.

We developed a Likert scale questionnaire to collect data for the analysis. The questionnaire was structured into four main sections. Section A covered issues on demographic data of respondents while Section B was devoted to curriculum/instructional adaptation and constituted ten (10) items while Section C, focused on infrastructural modification towards the inclusion of individuals with special needs had eight (8) items Section D delved into the knowledge and attitudes of teachers towards the inclusion of learners with special needs comprised ten (10) items. Teachers were required to indicate their degree of response to items on a Likert scale. To determine their views on the current status of inclusive education in the district, respondents were given a five point Likert scale to respond to. The weights of scoring was based on Likert scale format. Thus Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. The weight were equated to a maximum of 5 and a minimum of 1 and score band was used. The instrument was pilot tested using twenty-five (25) non-participating teachers' responses from Tarkwa SDA Primary and Islamic both in Wassa West District of Western Region of Ghana. The Cronbach's coefficient alpha for the questionnaire was 0.76. The instrument was scrutinise and prepared for analysis by expert in field special education.

4 RESULTS AND DISCUSSIONS

Data were analysed into descriptive statistics using SPSS version 27.

Research question 1

How do teachers adopt the school curriculum to promote inclusive education in selected pilot inclusive schools in Wassa Amenfi West?

The research question 1 sought to find how they adapted the instruction to suit the needs of learners with special needs in their classrooms. Responses of respondents were summarised as in Table 1

Table 1: Teachers' Responses on Curriculum Adaptations

| S/N | Statement | SA | A | U | D | SD |
|-----|---|---------|---------|---------|---------|---------|
| | | N = (%) | N = (%) | N = (%) | N = (%) | N = (%) |
| 1 | I always use tactile and auditory signals when necessary instead of visual cues only during the teaching process. | 13 (26) | 20 (40) | 7 (14) | 4 (8) | 6 (12) |
| 2 | I adopt cooperative group learning in addressing the learning needs of pupils with special needs in the classroom. | 9 (18) | 28 (56) | 4 (8) | 2 (4) | 7 (14) |
| 3 | Peer tutoring is not necessary and effective when dealing with a diversity of students in the classroom. | 4 (8) | 25 (50) | 4 (8) | 6 (12) | 11 (22) |
| 4 | I utilize real teaching and learning materials to facilitate the learning process of pupils with special needs in the classroom. | 13 (26) | 29 (58) | 4 (8) | 2 (4) | 2 (4) |
| 5 | I do not adapt the content of the curriculum to suit the diverse needs of pupils with special needs in the classroom. | 2 (4) | 14 (28) | 4 (8) | 16 (32) | 14 (28) |
| 6 | It is not important to check with the student to see what arrangements need to be made in order for them to complete their assignments efficiently. | 3 (6) | 14 (28) | 2 (4) | 16 (32) | 15 (30) |
| 7 | I give class exercises that suit the ability of students with Special needs. | 14 (28) | 19 (38) | 7 (14) | 4 (8) | 6 (12) |
| 8 | I develop an Individualized Education Plan (IEP) for each pupil with special needs in the classroom. | 4 (8) | 6 (12) | 1 (2) | 13 (26) | 26 (52) |

| | | | | | | |
|----|--|--------|---------|--------|---------|---------|
| 9 | Assistive technology is available to deliver the curriculum in the school to pupils. | 6 (12) | 16 (32) | 5 (10) | 10 (20) | 13 (26) |
| 10 | Pupils with disabilities work on the same grade level content as their peers without disabilities. | 2 (4%) | 14 (28) | 4 (8) | 16 (32) | 14 (28) |

Source: Field data, (2022)

The data shows that 33 teachers (66%) always used tactile and auditory signals instead of visual cues only during the teaching process, 10 (20%) disagreed and 7 (14%) remained undecided on the same statement. In terms of whether teachers adopted cooperative group learning in addressing the learning needs of pupils with special needs in the classroom, 37 (74%) agreed to the statement while 9 (18%) disagreed with 4 (8%) undecided on the same statement. While 29 (58%) thought that peer tutoring is not necessary and effective when dealing with a diversity of learners in the classroom, 17(34%) thought otherwise, and 4 (8%) were undecided.. A total of 42 teachers (84%) utilized real teaching and learning materials to facilitate the learning process of pupils with special needs in the classroom while 4 (8%) disagreed and another 4 (8%) remaining undecided. Sixteen (32%) teachers did not adapt the content of the curriculum to suit the diverse needs of pupils with special needs in the classroom but 30 (60%) did while 4 (8%) were undecided.. Seventeen (34%) teachers were of the view that it was not important to check with learners to see what arrangements needed to be made in order for them to complete their assignments efficiently, 31 (62%) disagreed to the statement, and 2(4%) were undecided.. Concerning class exercises, 33(66%) teachers gave class exercises that met the ability of learners with special needs, 27 (20%) did not give these kinds of exercises, and 21(14%) were undecided. Also, 10 (20%) developed an Individualized Education Plan (IEP) for each pupil with special needs in the classroom but 38 (76%) did not develop (IEP) with 1(2%) teacher being undecided. Twenty (40%) teachers held the view that assistive technology was available to deliver the curriculum in the schools to learners, 25(50%) disagreed to the statement, and 5 (10%) were undecided. In terms of whether pupils with disabilities were taught on the same grade level content as their peers without disabilities, 16 (32%) teachers agreed, 4 (8%) were undecided while, 30 (60%) disagreed to it.

Research question 2

How does teachers modify school infrastructural facilities to accommodate children with special needs in the pilot inclusive schools in Wassa Amenfi West?

Research question 2 sought to find how the modifications of school infrastructure accommodate children with special needs. Responses of respondents are presented in Table 2.

Table 2: Teachers' Responses on School Infrastructure Modifications to Accommodate Children with Special Needs

| S/N | Statement | SA | A | U | D | SD |
|-----|---|---------|---------|---------|---------|---------|
| | | N = (%) | N = (%) | N = (%) | N = (%) | N = (%) |
| 1. | The design of the school environment promotes movement of pupils with special needs. | 15 (30) | 14 (28) | 5 (10) | 6 (12) | 10 (20) |
| 2. | Classrooms are accessible to all pupils with special needs. | 4 (8) | 14 (28) | 9 (18) | 9 (18) | 14 (28) |
| 3. | The school library is accessible to all pupils with special needs. | 3 (6) | 12 (24) | 7 (14) | 12 (24) | 16(32) |
| 4. | There is appropriate furniture in the classrooms for all pupils with special needs. | 4 (8) | 9 (18) | 5 (10) | 9 (18) | 23 (46) |
| 5. | The school environment is safe and accessible to all students. | 16 (32) | 20 (40) | 6 (12) | 4 (8) | 4 (8) |
| 6. | Adequate lighting is provided in the classrooms. | 5 (10) | 23 (46) | 3(6) | 9 (18) | 10 (20) |
| 7. | Classroom seating arrangements do not support inclusion of pupils with special needs. | 16 (32) | 16 (32) | 6 (12) | 7 (14) | 5 (10) |
| 8. | Different learning centres are available in the school. | 3 (6) | 5 (10) | 5 (10) | 19 (38) | 18 (36) |

Source: Field data, (2022)

The results in Table 2. indicate that 29 (58%) teachers think that the design of the school environment promotes movement of learners with special needs, but 16 (32%) (16 teachers) hold the opposite view, while 5(10%) were undecided. In terms of whether classrooms were accessible to all learners with special needs, 18 (36%) teachers agreed, 9(18%) were undecided whilst 23(46%) disagreed to it. As to whether the school library was accessible to all pupils with special needs, 15(30%) teachers agreed, 7 (14%) were undecided whereas 28(56%) disagreed. The data shows that 13(26%) agreed that there was appropriate furniture in the classrooms for all learners with special needs, 5(10%) were undecided, and 32(64%) disagreed with the same statement. The data further shows that 36(72%) agreed that the school environment was safe and accessible to all categories of learners, 6(12%) were undecided, and 8(16%) disagreed to the same statement. As to whether adequate lighting was provided in the classrooms, 28(56%) teachers agreed, 3(6%) were undecided, whilst 19(38%) disagreed. Thirty two(64 teachers, agreed that classroom seating arrangements did not support the inclusion of pupils with special needs, 12% (6 teachers) were undecided, whereas 12(24%) disagreed. In terms of whether

different learning centres were available in the school, 8(16%) agreed, 5(10%) were undecided while 37(74%) disagreed to it.

Research question 3

How prepared are teachers towards the inclusive practices to meet the individual needs of all learners in the pilot inclusive schools in Wassa Amenfi West?

The research question 3 sought to find the teachers preparations towards the practice of inclusive education

Table 3: Teachers' Responses on their knowledge on the practice of inclusive education

| S/N | Statement | SA | A | U | D | SD |
|-----|---|---------|---------|---------|---------|---------|
| | | N = (%) | N = (%) | N = (%) | N = (%) | N = (%) |
| 1. | I have the knowledge in identifying pupils with special needs in the classroom. | 15 (30) | 26 (52) | 3 (6) | 3 (6) | 3 (6) |
| 2. | I can identify the learning needs of pupils with special needs in my classroom. | 9 (18) | 29 (58) | 7 (14) | 3 (6) | 2 (4) |
| 3. | I have the requisite knowledge in arranging the classroom setting to suit the needs of pupils with special needs. | 11 (22) | 29 (58) | 4 (8) | 2 (4) | 4 (8) |
| 4. | I have attended at least a workshop on inclusive education over the past two years. | 3 (6) | 17 (34) | 6 (12) | 8 (16) | 16 (32) |
| 5. | I have received training on managing behaviour problems of pupils with special needs in the classroom. | 11 (22) | 16 (32) | 6 (12) | 6 (12) | 11 (22) |
| 6. | I have been trained on how to write an Individualised Education Plan (IEP) for pupils with special needs in the classroom. | 4 (8) | 12 (24) | 7 (14) | 8 (16) | 19 (38) |
| 7. | I do not have the prerequisite skills of modifying assessment techniques to suit the needs of pupils with special needs in the classroom. | 3 (6) | 9 (18) | 7 (14) | 18 (36) | 13 (26) |
| 8. | I have the skills of facilitating socialization among pupils with and without special needs in the | 6 (12) | 26 (52) | 6 (12) | 3 (6) | 9 (18) |

classroom.

| | | | | | | |
|-----|--|---------|---------|---------|-------|--------|
| 9. | My teaching experience with pupils with disabilities has helped develop a positive attitude in me about inclusive education. | 7 (14) | 16 (32) | 14 (28) | 4 (8) | 9 (18) |
| 10. | I have developed a positive attitude towards pupils with special needs in the school. | 12 (24) | 26 (52) | 3 (6) | 4 (8) | 5 (10) |

Source: Field data, (2022)

Results from Table 3 shows that 41 (82%) teachers agreed that they had the knowledge in identifying pupils with special needs in their classrooms. Six per cent (3 teachers) were undecided and 6 (12%) teachers disagreed on the same statement. Again, 76% (38 teachers) agreed that they could identify the learning needs of pupils with special needs in their classrooms, while 7(14%) teachers were undecided with 5 (10%) teachers disagreeing on the statement. 38(60%)teachers agreed that they had the requisite knowledge in arranging the classroom setting to suit the needs of learners with special needs, 14 (7%)teachers remained undecided and 5(10%) teachers disagreed to the statement. In terms of whether they had attended at least a workshop on inclusive education over the past two years, 20 (40%) teachers agreed, 6 (12%) teachers were undecided, while 24 (48%) teachers disagreed. The data further shows that 27 (54 %)teachers had received training on managing behaviour problems of learners with special needs in the classroom, with 6 (12%)teachers being undecided and 17(34%) teachers disagreeing to the statement. Also, 16 (32%) teachers have been trained on how to write an Individualized Education Plan (IEP) for learners with special needs in the classroom, 7(14 %)teachers were undecided while 27(54%) teachers disagreed. In terms of whether the respondents do not have the prerequisite skills of modifying assessment strategies to suit the needs of learners with special needs in the classroom, 12 (24%)teachers agreed, 7(14%) teachers were undecided, and 31 (62%)teachers disagreed. 31(64%) teachers agreed that they had the skills of facilitating socialisation among learners with and without special needs in the classroom,6 (12%) teachers were undecided, but 12 (24%) teachers disagreed to the statement.23(46%) teachers agreed that their teaching experience with learners with disabilities has helped them to develop a positive attitude toward inclusive education, 14 (28 %) teachers were undecided whereas 13 (26 %) teachers disagreed to it. Again, 38(76%) teachers agreed that they have developed positive attitudes towards learners with special needs in the school, whereas 3 (6%)were undecided, and10 (20%)teachers disagreed to the statement.

Results indicate that teachers adapted the curriculum in various ways as far as the needs of learners were concerned. Data from Table 3, revealed as much as 42(84%) teachers utilised real teaching and learning materials to facilitate the learning process of learners with special needs in

the classroom, and as many as 33(66%) agreed that they always used tactile and auditory signals when necessary instead of visual cues only during the teaching process. This affirms the findings of Malburg (2011) who contends that teachers need to provide tactile learning experiences when possible, adding that it is important to give them hands-on exploration that does not solely rely on their sight. The data from Table 3, also revealed that teachers used various teaching strategies in meeting the diverse needs of learners in their classrooms. Some of the teachers used both cooperative learning and peer tutoring in the teaching and learning process. For instance, 74% (37 teachers) agreed that they adopted cooperative group learning in addressing the learning needs of learners with special needs in the classroom. Respondents indicated that they adopted a variety of teaching strategies in their teaching. Among the teaching strategies they adopted were co-operative teaching and learning. In support of this the findings of Sapon-Shevin, Ayres and Ducan (2000) assert that cooperative learning is of value for all learners including those who have been identified as “at risk”, “bilingual”, “gifted”, and the “normal”. They added that all learners need to learn and work in environments where their individual strengths are recognised and individual needs are addressed. Our results in Table 3 also show that teachers adapted the content of the curriculum to address the learning needs of learners in their classrooms. This is evident in their responses to statements 5 and 10. Respectively, 60% (30 teachers) disagreed that they do not adapt the content of the curriculum to suit the diverse needs of learners with special needs in the classroom, while another 60% (30 teachers) disagreed that learners with disabilities work on the same grade level content as their peers without disabilities. This indicates that some teachers in the schools modify the content of the curriculum to suit the needs of learners with special needs. This is in line with findings of O’Raw and Winter (2010) who assert that adapting curricular content means balancing priorities according to the strengths, needs and circumstances of the particular learners and the nature of the disability. For example, for some learners with intellectual disabilities, attention should focus on self-help and daily living skills. Whereas learners with hearing impairments may need priority to be given to the areas of vocabulary development, learners with emotional and behavioural problems may need a curriculum which includes self-management skills and building self-esteem. Assessment of learning in the classroom forms part of curriculum adaptation, and the analysis of data revealed that teachers in Wassa Amenfi West Pilot Inclusive Schools assess learners as part of the means of adapting the curriculum. For instance, the results in Table 3 revealed that 62% (31 teachers) disagreed that it was not important to check with learners to see what arrangements are needed in order for them to complete their assignments efficiently. Again, 66%(33 teachers) agreed that they gave class exercises that suited the ability of learners with special needs, thus indicating a form of curriculum adaptation. This finding is consistent with the position of the European Agency for Development in Special Needs Education (EADSNE) (2003) that educational systems must adopt assessment strategies and modifications that would ease the challenge for including of learners with special needs.

The results in Table 3.0 that the design of the school environment promotes movement of learners with special needs. For example, 58% (29 teachers) agreed that the design of the school environment promotes movement of learners with special needs whereas 72% (24 teachers) agreed that the school environment was safe and accessible to all categories of learners. This finding contradicts an earlier study (Attia 2020; Owusu-Amoako, 2015). In Attia study, he investigated impediments to orientation and mobility instructions for the visually impaired. Evidently, the school environment was unfriendly and learners with visual impairment were stigmatised. Owusu-Amoako (2015) sought to assess the support services and adaptations for

learners with visual impairment at Bechem in the Brong Ahafo Region of Ghana. The study revealed that the school has an environment that is partially adaptable to the visually impaired. In order to provide a truly inclusive school the physical environment needs to be safe and accessible to all learners, including those with physical and sensory disabilities (O’Raw & Winter, 2010). The respondents however, indicated that classrooms and libraries were not accessible to learners with special needs. For instance, 46% (23 teachers) disagreed that classrooms are accessible to all learners with special needs, 64% (32 teachers) agreed that classroom seating arrangement do not support inclusion of learners with special needs, and 56% (28 teachers) disagreed that their school libraries were accessible to all learners with special needs. Winter and O’Raw (2010) opined that providing safe physical access to the school buildings, classrooms and facilities is essential to ensure that all learners can physically gain access to the educational environment and be included in all classroom activities alongside their peers. This is especially relevant for learners with physical disabilities and that adequate access must be provided by teachers as required, including the provision of ramps and adapted toilets (Winter & O’Raw 2010). Attention on the physical infrastructure should be heeded to ensure that all doorways are wide enough to accommodate wheelchairs and that there is adequate space for wheelchairs to be manoeuvred in classrooms. Those learners with physical disabilities may also benefit from features such as adapted chairs or tables that are at the correct height for a wheelchair (Winter & O’Raw 2010). This stands to reason that it is not just enough to make the inclusive school environment accessible; it is equally important that the classrooms where teaching and learning take place is also made accessible, especially for those with physical disabilities. Data analysis revealed that 56% (28 teachers) agreed that adequate lighting was provided in the classrooms. This indicates that the amount of classroom lighting is good for partially sighted learners. Mitchell (2008) opined that using natural light should be maximized and available daylight. These findings corroborates a recent study conducted by Opoku-Nkoom and Ackah-jnr (2023), who investigated inclusive education practices in primary schools in Ghana and found that classrooms had somewhat good ventilation and lighting. Mitchell (2008) further asserts that the amount of available light in a classroom is important as it enables learners with visual impairments to clearly see information on the chalkboard and attend to desk-based tasks. 46% (23 teachers) disagreed that classroom seating arrangements did not support inclusion of learners with special needs. This includes that the seating arrangements in classrooms were structured to enable not only greater physical access for all learners, and access to the point of learning, but also as a means of controlling inappropriate behaviours of students with behavioural difficulties. For example, the findings indicated that furniture and equipment were arranged in such a way as to reduce unwanted movement around the classroom and thus minimise opportunities for students to disrupt other learners at their workspaces as propounded by Council for Exceptional Children (CEC, 1997). CEC asserts that learners with visual or hearing impairments can be seated close to the chalkboard or teacher or next to a window to avail extra natural light. Likewise, learners who need more frequent monitoring or have difficulties staying on task should be considered for preferential seating thus, near the teacher or between well-focused learners, away from distractions. 40% (25 teachers) disagreed that there was appropriate furniture in the classrooms for all learners with special needs. This may affect the posture learners with physical disabilities in the teaching and learning process. The analysis of the data further revealed inadequate different learning centres in the schools. For instance, 74% (105 teachers) disagreed that different learning centres were available in the classroom and in the schools.

Our results in Table 3 revealed that majority of the teachers had the knowledge in identifying learners with special needs and their learning needs in the classroom. For instance, 82% (41 teachers) agreed that they had the knowledge in identifying learners with special needs in the classroom whereas 76% (38 teachers) agreed that they could identify the learning needs of learners with special needs. However, a study carried early on contradicts this finding, indicating the flow of inclusive knowledge among teachers was limited (Opoku-Nkoom & Ackah-jnr, 2023). Torreno (2010) noted that early identification of special needs learners is important because it can lead to effective and early intervention. Teachers' ability to identify learners with special needs in the classroom also leads to identifying their learning needs. The data in Table 3 also revealed that teachers have the requisite knowledge to arrange the classroom setting to suit the needs of learners with special needs. The results in Table 2.0 revealed that 80 % (40 teachers) agreed that they have the requisite knowledge to arrange the classroom setting to suit the needs of learners with special needs. Making a few changes to the classroom provides equal opportunities for all learners with special needs succeed in a regular classroom setting (Malburg, 2017). Again, the results of the data indicate mixed reactions on workshops attended regarding inclusive education. Whereas 40% of the respondents indicated that they had attended at least a workshop in the past two years, 48% responded that they had never attended any recently. These findings supported the previous research findings by Scruggs and Mastropieri, (2002) and Winter (2006) that indicated that many teachers do not feel well prepared for inclusive classes and lack confidence in their own ability to teach children with special needs in inclusive settings. This skills gap can often be addressed through structured training programmes and continuous professional development. In addition, Mittler (2000) suggested that ensuring newly qualified teachers have a basic understanding of inclusive teaching is the best investment that can be made. International and European studies have also identified adequate teacher training (in initial teacher training and through in-service) as an essential prerequisite for inclusion (OECD, 2005). The findings indicated that most teachers never received training on developing an Individualised Education Plan (IEP) for pupils with special needs in their classrooms. For instance, 54% (27 teachers) disagreed that they had been trained on how to write an Individualised Education Plan (IEP) for learners with special needs in the classroom. Kanaitisa (2010) contends that writing effective inclusion IEP helps in individually planned, specialized, intensive and goal- directed performance instruction for students with special needs. Sixty-two per cent 62% (31 teachers), disagreed that they did not have the prerequisite skills of modifying assessment procedures to suit the needs of learners with special needs in the classroom. This is an indication that adaptations are not made for learners with special needs as far as assessment of their performances is concerned. Research findings indicate that learners should be given the opportunity to demonstrate their learning in a way that advantaged them because of their special educational needs (Kanaitisa, 2010). It appears the knowledge of assessment procedures for learners with special educational needs remain same since it's the implementation of the Inclusive Education in 2015. For instance, Gyimah and Amoako (2016) on teachers' perceptions on procedures to assess learners with special educational needs and disabilities indicated that in Ghana, most teachers have limited knowledge concerning the education of persons with special educational needs and therefore are unable to provide to effectively assess them. Traditional test-taking formats are likely to form a major barrier to accurate assessment of their learning (Kanaitisa, 2010). Again, the data from Table 2.0 reveals that teachers have developed positive attitudes towards inclusive education in general and for learners with disabilities. For instance, 46% as against 26% of the respondents agreed that their teaching experience with learners with

disabilities has helped developed a positive attitude in them about inclusive education. Also, 76% as against 18% of the respondents agreed that they had developed a positive attitude for learners with special needs in their schools. This is as a result of the teaching experience of most of them in inclusive classrooms,

5 CONCLUSION

The researchers finally conclude that professional knowledge, infrastructure modification and curriculum adaptation and modifications are the key elements in working in inclusive classrooms and schools. The study revealed that teachers adapted the curriculum in diverse ways, including using real teaching and learning materials and tactile and auditory signals when necessary instead of visual cues only during the teaching process. Again, the designs of some of the schools' environment and classroom promoted the movement of learners with special needs. However, inclusive education is confronted with significant challenges as some classrooms and libraries were not accessible to learners with special needs. Some schools never received specialised equipment and materials to manage some learners with special needs and lacked knowledge in implementing IEP. Based on the findings, the researchers recommended that workshops should be organized by the Ghana Education Service to update teachers' skills in handling learners with diverse needs in inclusive classrooms. The Ministry of Education, via the Ghana Education Service, should provide specialised equipment and materials in the form of Braille machines, Braille sheets, enlarged prints, hearing aids, and acoustics should be supplied to schools to facilitate the inclusion of learners with special needs in regular classrooms.

Consent

As per international standards or university standards, respondents' written consent has been collected and preserved by the author(s).

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