

## Teachers' Knowledge and Practice of Accommodation Strategies for Pupils With Visual Impairment in Basic Schools

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### Abstract

This study investigated teachers' knowledge and practice of accommodation strategies for pupils with visual impairment in basic schools in Owerri North Local Government of Imo state, Nigeria. The study was carried out to determine the level of basic school teachers' knowledge and practice of accommodation strategies for pupils with visual impairment and to ascertain the extent of practice of accommodation strategies for pupils with visual impairment. Respondents were 80 basic school teachers selected through convenience sampling. Questionnaire on knowledge and practice of accommodation strategies for pupils with visual impairment (QASPM) developed by the researchers and validated by specialists in measurement and evaluation was used to collect data for the study. Data collected were analyzed using frequency count, percentage, mean scores and standard deviation. Results show low level of knowledge of accommodation strategies among the respondents as 61.1% of the respondents were not aware of accommodation strategies for persons with visual impairment while 38.9% were aware. It was also found that the level of practice of accommodation strategies for pupils with visual impairment among the respondents was very low as shown by the weighted average ( $\bar{x}=1.38$ ;  $SD=0.484$ ). The need for regular in-service workshop for basic school teachers on accommodation strategies for pupils with visual impairment in Basic Schools in Owerri North Local Government Area and provision of necessary facilities and equipment such as resource room, braille

machine, large prints, audiotapes, etc. which will enable teachers accommodate pupils with visual impairment in an inclusive classroom instruction were recommended.

**Key words:** Accommodation; Knowledge; Practice; Basic schools; Visual impairment

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### INTRODUCTION

Education is now recognized and acknowledged by various national and international organizations as a human right. The statements from the 1994 United Nation for Education, Scientific and Cultural Organization's (UNESCO) conference recognized regular schools with inclusive orientation as the way of tackling discriminatory attitudes, creating welcoming communities, building an inclusive society, and achieving education for all. In addition, the conference provided an effective educative education to the majority of children (UNESCO, 1994). Earlier, UNESCO (2002) had equally advocated for provision of access and participation to persons irrespective of their social, economic and physical limitations. Individuals with visual impairment are present in schools. This statement also emphasized the need to educate all persons together (sighted or with visual impairment) in the same class. The zero-reject principle also prohibits the exclusion of any person from general education (Bruggemann & Friedman, 2017).

From the foregoing therefore, it is evident that persons with visual impairment need equal access to education as their sighted peers. Providing the same opportunity to

persons with visual impairment may become a herculean task, especially if the regular classroom teachers are not knowledgeable with skills to handle inclusive classroom setting. It can also be daunting tasks if facilities, equipment and personnel needed for the education of students with visual impairment are not available. Accommodating students with visual impairment require expertise, facilities and equipment. To achieve optimum success in an inclusive primary school environment, accommodating pupils with visual impairment is necessary. If this is not done, learning among pupils with visual impairment will basically be interrupted (Johnsen, 2001). Research shows that the context in which learning occurs, inflexible curriculum and inappropriate assessment procedures, are some of the factors leading to ineffective learning among pupils with visual impairments (Fraser & Maguvhe, 2008).

Inclusive learning environment should be different from the ordinary learning environment, because an inclusive classroom contains students with different learning needs and abilities (Simon, Carlson, Huntington, McMillen & Brent, 2010). For quality learning of pupils with visual impairments, some accommodations should be provided adhered to. These accommodations include availability and use of large print format for persons with low vision, allocation of more time for test taking, resource room assistance, effective classroom lightening, preferential seating positions like sitting in the front row, the use of magnifying glasses, and the assistive technology such as speech-to-text assistive device (Webster & Roe, 1998; Simon *et al*, 2010). Nigeria is a developing nation that has not fully embraced the idea of inclusive education. Therefore, there is a need to investigate whether teachers have the knowledge of these accommodation needs of the visually impaired and the extent to which they provide and practice them. This will help the pupils with visual impairment to learn better in inclusive settings.

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## LITERATURE REVIEW

According to Spungin (2002), visual impairment can be defined legally and educationally. Legal definition describes visual impairment by considering the visual acuity of a person. It describes a blind person as the one having visual acuity of 20/200 or less than that, even by using optical devices. This means that a person with blindness can see an object at 20 feet whereas a sighted person can see at 200 feet. A legal definition considers a person with low vision as having visual acuity of 20/70 meaning that a person with low vision can see an object at 20 feet whereas a person with normal vision can see at 70 feet (Spungin, 2002). Visual impairment refers to anything that affect vision of an individual which reduces the chances of seeing without glasses (McManis, 2020). Although children with visual impairments are able to

learn and do most of the things their sighted peers do, sometimes their accommodation does not enable them learn better.

As Spungin (2002) put it, visual impairment may affect development of concepts, mobility, orientation to an area, abstract learning, relationships with peers, self-esteem, and access to many elements of educational, vocational and recreational living that the sighted world takes for granted. Accommodation practice needed for effective teaching and learning for students with visual impairment include the provision of large print for students with low vision, appropriate lightening of the classroom, preferable sitting position, giving more time for test completion, use of braille during examinations and the use of assistive technology such as speech-text device. Text-To-Speech is vocally-interactive systems to realize speech synthesis. It synthesis is a technology that provides a means of converting written text– basically in English Language– from a descriptive form to a spoken language that is easily understandable by the end-user (Kaladharan, 2015).

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## THEORETICAL FRAMEWORK

Gardner's (1998) Compensatory Education Development Theory focuses on helping an individual to become as independent as possible through acquiring basic life skills needed to function successfully in daily living. Compensatory education is provided to help disadvantaged students to overcome any cognitive, structural and social deficits due to their environment. Thus, visually impaired students if trained and accommodated properly may improve in their social skills and thus lead a normal life

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## STATEMENT OF THE PROBLEM

Although inclusive education is now widely acknowledged as the main tradition for educating all categories of students, it is important to note that inclusive education arrangement requires certain provisions. One of these necessary provisions is the preparedness of the teachers in terms of knowledge and practice of providing accommodation for learners with visual impairment. Without this, learners with visual impairment may not benefit from classroom instruction. In primary schools, learners with visual impairment may be on their own if teachers are not aware of their special needs and/or how to meet them. This will lead to poor academic performance among pupils with visual impairment. This makes this study imperative.

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## OBJECTIVES OF THE STUDY

The main purpose of this study is to investigate the knowledge and practice of accommodation among teachers of primary schools in Owerri North Local

Government area of ImoState. Other objectives of the study are:

- i. To examine the level of basic school teachers’ knowledge of accommodation strategies for pupils with visual impairment.
- ii. To ascertain the extent of basic school teachers’ practice of accommodation strategies for pupils with visual impairment.

## RESEARCH QUESTIONS

Two research questions guided this study. They are:

- i. What is the level of basic school teachers’ knowledge of accommodation strategies for pupils with visual impairment?
- ii. What is the extent of basic school teachers’ practice of accommodation strategies for pupils with visual impairment?

## METHODOLOGY

Descriptive survey was used to carry out this study. Questionnaire on Accommodation Strategies for Pupils with Visual Impairment (QASPVI) developed by the researchers and validated by research experts was used to collect data for the study. The population for the study comprises of all primary school teachers in Owerri North Local Government of Imo State. The sample are 80 primary school teachers selected using convenient sampling technique. The sample consists of the teachers who were in school and are willing to respond to the instrument used for data collection on the day the researchers visited their schools. The questionnaire adopted a 4-likert response scale of strongly agree, agree, disagree, and strongly disagree. The questionnaire has two major sections: section A and B. Section A capture the respondents’ socio-demographic information such as gender, age and length of service, while Section B focused on the accommodation strategies for teaching pupils with visual impairment. The instrument was personally administered to the teachers who filled and completed it. Data collected were analysed using descriptive statistical tools such as simple percentage, mean and standard deviation.

## RESULTS

Table 1 shows the demographic distribution of the respondents. It shows that 61.3% of the respondents were female while 38.7% were male. The table further shows that 36.2% of the respondents were within the age range of 38-47 years while 30% were within the age range of 18-27 years. 35% of the respondents has 1-5 years of experience, while 26.3% of the respondents had 16-20 years of experience. The table therefore shows normal

distribution among the gender, age range and varied years of experiences.

**Table 1**  
**Socio-demographic Distribution of the Respondents**

|                    | Variable   | N  | %    |
|--------------------|------------|----|------|
| Gender             | Male       | 31 | 38.7 |
|                    | Female     | 49 | 61.3 |
|                    | Total      | 79 | 100  |
| Age                | 18-27      | 24 | 30.0 |
|                    | 28-37      | 23 | 28.8 |
|                    | 38-47      | 29 | 36.2 |
|                    | 48-57      | 3  | 3.8  |
|                    | 58 & Above | 1  | 1.2  |
|                    | Total      | 80 | 100  |
| Year of experience | 1-5        | 28 | 35.0 |
|                    | 6-10       | 7  | 8.7  |
|                    | 11-15      | 14 | 17.5 |
|                    | 16-20      | 21 | 26.3 |
|                    | 21 & Above | 10 | 12.5 |
|                    | Total      | 80 | 100  |

Source: Field Survey, 2023

**Table 2**  
**Knowledge of Accommodation Strategies among the Respondents**

| Accommodation strategies                      | Aware | %    | Not aware | %    | Level |
|---|-------|------|-----------|------|-------|
| 1. Assistive technology                       | 16    | 20.0 | 64        | 80   | Low   |
| 2. Considering for preferred sitting location | 25    | 31.3 | 55        | 68.7 | Low   |
| 3. Increase in duration for test taking       | 35    | 43.8 | 45        | 56.2 | Low   |
| 4. Large print format                         | 10    | 12.5 | 70        | 87.5 | Low   |
| 5. Magnifying glasses                         | 38    | 47.5 | 42        | 52.5 | Low   |
| 6. Use of tactile teaching aids               | 30    | 37.5 | 50        | 62.5 | Low   |
| 7. Audiotape                                  | 64    | 80   | 16        | 20.0 | High  |
| Weighted average                              | 31.1  | 38.9 | 48.9      | 61.1 | Low   |

Table 2 shows the level of knowledge about accommodation strategies for visually impaired pupils among primary school teachers’ used in this study area. It shows that 80% of the respondents were not aware of the use of assistive technology, 68.7% of the respondents were not aware of the need to consider preferred location for pupils with visual impairment while 56.2% of the respondents were not aware of the need to increase the duration for test taking. The table further shows that 87.5% of the respondents were not aware of the use of large print of format, 52.5% were not aware of the use of magnifying glasses and 62.5% were not aware of the use of tactile teaching aids for pupils with visual impairment.

The table therefore shows that the level of awareness about accommodation strategies for pupils with visual impairment in an inclusive classroom setting is low among the teachers as shown by the weighted average i.e. 38.9% are aware, 61.1% are not aware.

**Table 3**  
**Practice of Accommodation Strategies among the Respondents**

|    | Statement   | N  | X̄   | SD    | Extent |
|----|---|----|------|-------|--------|
| 1. | Allow the pupils to use text-to-note technology.                        | 80 | 1.35 | 0.480 | Low    |
| 2. | Allow the students to sit in any location that is suitable for him/her. | 80 | 1.41 | 0.495 | Low    |
| 3. | Recommend magnifying glasses.   | 80 | 1.48 | 0.778 | Low    |
| 4. | Use tactile aids for teaching.  | 80 | 1.48 | 0.779 | Low    |
| 5. | Give additional time for the child will take a test.                    | 80 | 1.46 | 0.572 | Low    |
| 6. | Ensure the class is well lightened.                                     | 80 | 1.09 | 0.284 | Low    |
| 7. | Use audiotape   | 80 | 1.42 | 0.510 | Low    |
|    | Weighted average  | 80 | 1.38 | 0.484 | Low    |

Note: = Mean; SD= Standard Deviation

Table 3 shows the level of practice of accommodation among (FROM) the respondents. It shows that the level of practice of allowing pupils to use text-to-note technology is low ( =1.35; SD= 0.480). It also shows low extent to which the teachers practice allowing students to sit at preferred location ( =1.41; SD= 0.495), (USE OF) recommended the use of magnifying glasses ( =1.48; SD= 0.778), use tactile instructional aids ( =1.49; SD= 0.779), give additional time for test taking ( =1.46; SD= 0.572), ensure lightening of the classroom ( =1.09; SD= 0.284) and use of audiotape ( =1.42; SD= 0.510). The weighted average of =1.38;and SD= 0.484, show that the level of practice of accommodation among the teachers is low.

## DISCUSSION

The study investigated teachers' knowledge and practice of accommodation for pupils with visual impairment in primary schools in Owerri North Local Government. The result revealed that the level of teachers' knowledge and level of practice of accommodation strategies for pupils with visual impairment in primary schools were low. These findings support that of Webster and Roe, (1998) who reported poor knowledge of accommodation among regular classroom teachers. Omer (2015) also reported low knowledge of accommodation among teachers. For proper accommodation of students with visual impairment, teachers should have a classroom seating arrangement that will enable visually impaired learners to avoid glare, too much or too little lighting directed at them, and to seat at an appropriate distance to view materials on the board for the partially sighted, use contrasting colors to help low vision students to identify features, and to use large, clear, and grammatically correct print on the board (Omer,

2015). The authors added that teachers should endeavour to give large and easy to manipulate learning aids to pupils with visual impairments and to use extensively learners' auditory and tactile senses.

It was also found that the practice of accommodation strategies is very low among the teachers. These findings lend credence to that of Biddle (2015) who reported insufficient knowledge and skills among teachers regarding implementation of inclusive teaching and accommodation for learners with visual impairments. Another study by Miles (2003) revealed that accommodation for persons with visual impairment is not understood by regular classroom teachers, and as such, they cannot make substantial efforts to accommodate students with visual impairment in the teaching and learning process.

## SUMMARY

It was found that the knowledge of accommodation strategies and the level of practice and implementation of such strategies are very low among regular classroom teachers of Basic Schools in Owerri North Local Government Area.

## CONCLUSION/RECOMBINATION

In view of these findings, the following recommendations are necessary:

- i. There should be regular in-service workshop for Basic School teachers on accommodation strategies for pupils with visual impairment in Basic Schools in Owerri North Local Government Area.
- ii. Basic Schools should be provided with necessary facilities and equipment such as resource room, Braille machine, large print, audiotape, etc. which will enable teachers accommodate pupils with visual impairment in classroom instruction. The state government should take a visible lead in this direction.

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