# Practice of Inclusive Education for Learners with Visual Impairment in Lavun LGA of Niger State

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**Abstract**

This study examined practices of inclusive education for learners with visual impairment in Lavun LGA of Niger State. The study employed a cross-sectional survey design. The research adopted structured questionnaire to collect data from teachers, administrators and learners with visual impairment in five inclusive schools. The sample size of 60 respondents were selected comprising of 20 learners and 40 staff. Purposive sampling technique was used in this study to draw sample. The Inclusive Education Practice Questionnaire (IESQ) was used for data collection, validated through expert review and demonstrated a reliability coefficient of 0.77. The findings indicated that learners with visual impairment face significant challenges in accessing inclusive education, notably due to insufficient Braille materials and limited access to assistive devices. However, the study also highlighted that trained teachers, accessible school infrastructure and the use of Braille materials and assistive technology can enhance the learning experience for these students. Additionally, teachers and administrators expressed concerns regarding inadequate support from school administration for inclusive education initiatives. The study identified several strategies for improving inclusive education practices, including raising awareness, providing assistive technology, fostering collaboration between special education and regular teachers, and incorporating Braille and tactile graphics into the curriculum. Recommendations included ensuring access to Braille materials and assistive devices in all schools and providing teacher training on their effective use. The study emphasized the need for systemic changes to create a more supportive and inclusive educational environment for learners with visual impairment in Lavun LGA.

**Keywords:** Practice, Inclusive, Education, Learners, Visual Impairment

## Introduction

Life without sight is one of the most challenging human conditions and is difficult to imagine. Vision provides us with more than half of the information about the world around us. Millions of people worldwide are affected with visual impairment that limits their capacity to receive an education and engage fully in society. For this reason, persons living with visual impairment present unique educational needs which are best addressed early in life. These educational needs include concepts development, improving listening skills, and developing study and research skills. According to the World Health Organization (WHO, 2021), approximately 2.2 billion people worldwide have vision impairment or blindness, with a substantial proportion of these individuals being children. In Nigeria, the prevalence of visual impairment is particularly alarming, with estimates suggesting that about 1.5 million children are affected. This impairment can hinder academic performance, limit social interactions and restrict future employment opportunities, thereby perpetuating cycles of poverty and marginalization. According to Mboshi (2018), visual impairment can interfere with the development of learning, mobility, social growth and adjustment.

Inclusive education has been internationally recognised as a philosophy for attaining equality, justice and quality education for all children, especially those who have been traditionally excluded from mainstream education for reasons of disability and other characteristics. Inclusive education is a critical approach that seeks to provide equitable learning opportunities for all students, including those with disabilities. It emphasizes the importance of adapting educational environments to meet diverse needs, thereby fostering a sense of belonging and participation among learners (UNESCO, 2017). For learners with visual impairment, inclusive education strategies can significantly enhance their academic achievements and social skills, enabling them to thrive in both educational settings and the broader community (Eze & Nwankwo, 2020). Inclusive education practice is essential for all students irrespective of disabilities. It brings together students with and without visual impairment to learn together (Chia et al., 2024). Inclusive education not only benefits students with disabilities but also enriches the learning experience for all students by promoting diversity and understanding.

Schools in Niger State, Nigeria has faced unique challenges that hinder the effective implementation of inclusive education strategies for a long period of time. These challenges include inadequate infrastructure, lack of trained personnel and insufficient resources to support learners with visual impairment (Abdullahi & Mohammed, 2021). Many inclusive schools if not all are ill-equipped to provide the necessary assistive technologies and learning materials that cater to the needs of learners with visual impairment, which can lead to poor educational outcomes. Societal attitudes towards disability often result in stigmatization and discrimination, further complicating the educational landscape for these learners (Ibrahim & Aliyu, 2018). Many students experience stigmatization and discrimination from their peers in the same class and their teachers. These negative attitudes frequently result in low expectations for learners with visual impairment, which in turn limits their opportunities and access to support. The researchers are prompted to investigate this topic due to the pressing need for effective inclusive education strategies that can facilitate the equitable development of learners with visual impairment in Lavun Local Government Area of Niger State.

## Statement of the Problem

Learners with visual impairment face significant challenges in accessing education and engaging with society. Approximately 2.2 billion people globally and 1.5 million children in Nigeria are affected, leading to poor academic performance, restricted social interactions, and limited future employment opportunities. It has been observed that schools in Niger State lack inclusive education practices which has resulted to inadequate infrastructure, insufficient classrooms and adaptive technology devices. This has led to difficulties in accessing equal education. Many schools lack teachers trained in special education, particularly in visual impairment, leading to inadequate support for learners. These schools often have insufficient teaching assistants to provide one-on-one support to learners with visual impairment. The limited expertise in Braille and tactile graphics among teachers and staff further worsens the problem, making it difficult to provide learners with the necessary skills. Also, schools lack sufficient Braille materials, including textbooks, workbooks, and reading materials. The limited assistive technology devices such as canes, walkers, and wheelchairs make it difficult for learners with visual impairment to navigate the school premises. Furthermore, these schools receive inadequate funding, making it difficult to provide learners with the necessary resources and support. Societal attitudes often have low expectations of learners with visual impairment, leading to limited opportunities and support. The present study will fill the gap by examining the specific challenges faced by learners with visual impairment and evaluating the adequacy of educational services provided to them. It will generate evidence-based recommendations to improve inclusive practices.

## Aim and Objectives of the Study

This study investigated the practice of inclusive education strategies for learners with visual impairment in Lavun LGA of Niger State. The following are the specific objectives:

1. To identify the challenges faced by learners with visual impairment in accessing inclusive education in Lavun LGA of Niger State.
2. To determine the effectiveness of inclusive education practice in promoting access to education by learners with visual impairment in Lavun LGA of Niger State.
3. To examine how teachers and administrators perceive their experiences in inclusive education of Lavun LGA of Niger State.
4. To find out the strategies that could be employed to improve inclusive education practices for learners with visual impairment in Lavun LGA of Niger State.

**Research Questions**
1. What are the challenges faced by learners with visual impairment in accessing inclusive education in Lavun LGA of Niger State?
2. How effective are inclusive education practice in promoting access to education by learners with visual impairment in Lavun LGA of Niger State?
3. How do teachers and administrators perceive their experiences in inclusive education of Lavun LGA of Niger State?
4. What strategies could be employed to improve inclusive education practices for learners with visual impairment in Lavun LGA of Niger State?

**Methodology**
**Research Design**
A cross-sectional survey design was employed in this study. This design allowed for the collection of data from a sample of participants at a single point in time, providing a snapshot of the current situation. The survey design enabled the researchers to collect quantitative data from a large sample of learners with visual impairment, teachers and administrators in Lavun Local Government Area. The use of a cross-sectional survey design in this study provided valuable data into the effectiveness of inclusive education strategies in promoting the equitable development of learners with visual impairment. The design allowed for the identification of patterns, trends and correlations between variables, which informed the development of recommendations for improving inclusive education practices.

**Population and Sample**
The population for this study derived from five (5) secondary schools only in Lavun Local Government Area of Niger State. These schools include: Government Secondary School Vunchi; Government Day Secondary School Doko; Army Day Secondary School Bida; Day Secondary School Woyakedey and Government Day Secondary School Gimadoko. The total sample of the study was 60 made up of 20 learners with hearing impairment and 40 staff across the 5 schools. Purposive sampling technique was used since it is only five schools that practice inclusive education.

**Instrument**
The instrument for data collection for this study was an adopted structured questionnaire titled: Inclusive Education Practice Questionnaire (IEPQ. The questionnaire consisted of 24 items divided into four sections, each corresponding to one of the research questions. The first two sections, comprising 12 items were answered by learners with visual impairment. These items focused on the challenges faced by learners with visual impairment in accessing inclusive education (Research Question 1) and the effectiveness of inclusive education practice in promoting their access to education (Research Question 2). The two sections, also comprising 12 items were answered by administrators and teachers. These items focused on the perceptions of teachers and administrators regarding their experiences in an inclusive classroom (Research Question 3) and the strategies that could be employed to improve inclusive education practices (Research Question 4). All items on the questionnaire were rated on a four-point Likert scale, with response options ranging from Strongly Agree (SA 4points) to Strongly Disagree (SD 1point). The questionnaire was designed to provide quantitative data that could be analyzed to identify patterns, trends and correlations between variables.

The validity of the Inclusive Education Strategies Questionnaire (IESQ) was ensured through a critical review by two lecturers in the Department of Special Education, Minna State College of Education, Niger State, resulting in necessary corrections and improvement. The reliability of the IESQ was established using the test-retest method, yielding a Pearson's Product Moment Correlation Coefficient of 0.77, indicating high reliability.

**Data Analysis**
The data from the respondents through the questionnaire was collected, sorted, coded and analyzed using the statistical package software (Statistical Package for Social Science (SPSS) of version 23.0). Mean statistics was used to analyze the research questions. The criterion mean for acceptance of any item stood at 2.50 and below it 8was rejected.

**Results**
**Research Question One:** What are the challenges faced by learners with visual impairment in accessing inclusive education in Lavun LGA of Niger State?

**Table 1: Mean summary of challenges faced by learners with visual impairment in accessing inclusive education (n=20).**

| S/N | Items | SA | A | D | SD | $\bar{X}$ | Crit. Mean | Decision |
|-----|-------|----|----|----|----|----|----|----------|
| 1 | Insufficient Braille materials hinder my access to inclusive education. | 7 | 7 | 2 | 4 | 2.85 | 2.50 | Accepted |
| 2 | Limited access to assistive devices, such as canes and walker hinders my mobility within the school. | 12 | 5 | 1 | 2 | 3.35 | 2.50 | Accepted |
| 3 | Negative societal attitudes towards learners with visual impairment discourage me from accessing inclusive education. | 4 | 9 | 5 | 2 | 2.75 | 2.50 | Accepted |
| 4 | Inaccessible school infrastructure is a significant challenge to my access to inclusive education. | 7 | 4 | 4 | 5 | 2.65 | 2.50 | Accepted |
| 5 | Untrained teachers make it easy for me to access inclusive education. | 3 | 4 | 4 | 9 | 2.05 | 2.50 | Rejected |
| 6 | Lack of adaptive technology devices limits my participation in inclusive classroom. | 10 | 8 | - | 2 | 3.30 | 2.50 | Accepted |

The data presented in Table 1 reveals the challenges faced by learners with visual impairment in accessing inclusive education in Lavun LGA of Niger State. The mean scores for each item indicate the extent to which learners with visual impairment agree or disagree with the statements. Items 1, 2, 3, 4 and 6 have mean scores ranging from 2.85 to 3.35, which are above the critical mean of 2.50. This indicates that learners with visual impairment strongly agree that insufficient Braille materials, limited access to assistive devices, negative societal attitudes, inaccessible school infrastructure, and lack of adaptive technology devices are significant challenges to their access to inclusive education. On the other hand, item 5 has a mean score of 2.05 below the critical mean of 2.50. This indicates that learners with visual impairment disagree with the statement that untrained teachers make it easy for them to access inclusive education.

**Research Question Two:** How effective are inclusive education strategies in promoting the equitable development of learners with visual impairment in Lavun LGA of Niger State?

**Table 2: Mean summary of effectiveness of inclusive education strategies in promoting the equitable development of learners with visual impairment (n=20)**

| S/N | Items | SA | A | D | SD | $\bar{X}$ | Crit. Mean | Decision |
|-----|-------|----|----|----|----|----|----|----------|
| 7 | Accessible school infrastructure has improved my mobility and participation in school activities. | 7 | 11 | 2 | - | 3.25 | 2.50 | Accepted |
| 8 | Trained teachers have made a significant difference in my learning experience. | 8 | 9 | 2 | 1 | 3.20 | 2.50 | Accepted |
| 9 | Inclusive education strategies have improved my academic performance. | 8 | 1 | 6 | 5 | 2.60 | 2.50 | Accepted |
| 10 | Inclusive education strategies have not enhanced my social interactions with sighted peers. | 1 | 4 | 3 | 12 | 1.70 | 2.50 | Rejected |
| 11 | Inclusive education strategies have boosted my confidence and self-esteem. | 5 | 3 | 5 | 7 | 3.30 | 2.50 | Accepted |
| 12 | The use of Braille materials and assistive technology devices has facilitated my learning. | 10 | 1 | 6 | 3 | 2.85 | 2.50 | Accepted |

Table 2 reveals the effectiveness of inclusive education strategies in promoting the equitable development of learners with visual impairment in Lavun LGA of Niger State. Items 7, 8, 9, 11 and 12 have mean scores ranging from 2.85 to 3.30, which are above the critical mean of 2.50. This indicates that learners with visual impairment strongly agree that accessible school infrastructure, trained teachers, inclusive education strategies and the use of Braille materials and assistive technology devices have improved their academic performance, mobility, participation and confidence. However, item 10 has a mean score of 1.70 below the critical mean of 2.50. This

indicates that learners with visual impairment disagree with the statement that inclusive education strategies have not enhanced their social interactions with sighted peers.

**Question Three:** How do teachers and administrators perceive their experiences in inclusive education in Lavun LGA of Niger State?

**Table 3: Mean summary of the perception of teachers and administrators' experiences in inclusive education (n=45).**

| S/N | Items | SA | A | D | SD | $\bar{X}$ | Crit. Mean | Decision |
|---|---|---|---|---|---|---|---|---|
| 13 | I feel that the school administration don't provide adequate support for inclusive education initiatives. | 14 | 14 | 7 | 5 | 3.23 | 2.50 | Accepted |
| 14 | I feel that the inclusive classroom environment is supportive of learners with visual impairment | 7 | 11 | 13 | 9 | 2.40 | 2.50 | Rejected |
| 15 | The training I received on inclusive education has prepared me to support learners with visual impairment effectively. | 9 | 19 | 5 | 7 | 2.44 | 2.50 | Rejected |
| 16 | I believe that learners with visual impairment have equal opportunities to participate in classroom activities. | 9 | 7 | 14 | 10 | 2.38 | 2.50 | Rejected |
| 17 | I am satisfied with my experience in the inclusive classroom environment. | 11 | 6 | 13 | 10 | 2.45 | 2.50 | Rejected |
| 18 | The assistive technology devices have enhanced my learning/instructional experience. | 8 | 11 | 9 | 12 | 2.38 | 2.50 | Rejected |

Table 3 reveals the perceptions of teachers and administrators regarding their experiences in inclusive education in Lavun LGA of Niger State. Items 13 has a mean score of 3.23 above the critical mean of 2.50. This indicates that teachers and administrators agree that the school administration does not provide adequate support for inclusive education initiatives. Items 14, 15, 16, 17 and 18 with mean scores (2.40, 2.44, 2.38, 2.48 and 2.38) below the critical mean of 2.50 implies that teachers and administrators disagree about the statements that the inclusive classroom environment is supportive.

**Research Question Four:** What strategies could be employed to improve inclusive education practices for learners with visual impairment in Lavun LGA of Niger State?

**Table 4: Mean summary of strategies employed to improve inclusive education practices for learners with visual impairment (n=45).**

| S/N | Items | SA | A | D | SD | $\bar{X}$ | Crit. Mean | Decision |
|---|---|---|---|---|---|---|---|---|
| 19 | Raising awareness about visual impairment and inclusive education would encourage the learners. | 12 | 10 | 7 | 11 | 2.83 | 2.50 | Accepted |
| 20 | Providing assistive technology devices would facilitate learning for learners with visual impairment. | 11 | 15 | 7 | 7 | 2.75 | 2.50 | Accepted |
| 21 | Collaboration between special education and regular teachers would improve support for the learners. | 13 | 11 | 11 | 5 | 2.80 | 2.50 | Accepted |
| 22 | Providing teachers with training would improve learning outcomes for learners with visual impairment. | 15 | 10 | 8 | 7 | 2.83 | 2.50 | Accepted |
| 23 | Incorporating Braille and tactile graphics into the curriculum would enhance accessibility for learners. | 14 | 13 | 8 | 5 | 2.90 | 2.50 | Accepted |
| 24 | Ensuring that school infrastructure is inaccessible would promote equitable development. | 9 | 9 | 13 | 9 | 2.45 | 2.50 | Rejected |

Table 4 shows the strategies that could be employed to improve inclusive education practices for learners with visual impairment in Lavun LGA of Niger State. Items 19, 20, 21 22and 23 with mean scores (2.83, 2.75, 2.80, 2.83, 2.90) are above the critical mean of 2.50. This indicates that respondents strongly agree that raising awareness about visual impairment and inclusive education, providing assistive technology devices and providing teachers with training and incorporating Braille and tactile graphics into the curriculum are effective strategies to improve inclusive education practices for learners with visual impairment. Item 24 with a mean score of 2.45 is below the critical mean of 2.50. This shows that respondents disagree with the statement.

**Discussion**

The findings of the study revealed that learners with visual impairment in Lavun LGA of Niger State encounter numerous challenges in accessing inclusive education. One of the primary obstacles identified was the insufficient availability of Braille materials. Another significant challenge faced by learners with visual impairment is the limited access to assistive devices such as canes and walkers. The lack of these devices not only affects their physical mobility but also their overall confidence and participation in school activities. The findings also indicated that negative societal attitudes towards learners with visual impairment were acknowledged as discouraging factors. This reflects a broader societal issue where stigma and misconceptions about disabilities can lead to exclusion and discrimination, further complicating the educational landscape for these learners. This finding agrees with Mafa (2012) whose study found that the lack of Braille materials severely limits the educational opportunities for students with visual impairment, making it difficult for them to access the curriculum and participate fully in classroom activities. Mafa indicated the importance of providing accessible learning materials for students with visual impairment. Hlatywayo and Mapolisa's (2020) findings supported that the lack of assistive devices not only affects the physical mobility of students with visual impairment but also their overall confidence and participation in school activities. Hlatywayo and Mapolisa emphasized that assistive devices are essential for promoting independence and inclusivity in the classroom.

The results revealed that learners with visual impairment in Lavun LGA of Niger State believe that accessible school infrastructure has improved their mobility and participation in school activities. The findings showed that trained teachers, inclusive education strategies, and the use of Braille materials and assistive technologies significantly improved the learning outcomes of learners with visual impairment. Accessible learning resources were found to be essential in promoting inclusion and academic success. Moreover, inclusive environments helped learners with visual impairment build confidence and self-esteem through interaction with sighted peers. A study by Kisanji (1998) found that accessible school infrastructure and trained teachers are essential for promoting inclusive education for learners with visual impairment. A study by Opoku (2015) is in congruence with the present finding that inclusive education strategies may not be sufficient to address the social challenges faced by learners with visual impairment, contradicting the finding that inclusive education strategies have not enhanced social interactions with sighted peers.

Teachers and administrators in inclusive schools in Lavun LGA of Niger State reported that school administrations do not provide adequate support for inclusive education initiatives. However, they were neutral or disagreed that inclusive classrooms are supportive, that training has prepared them to support learners with visual impairment and that assistive technology devices have enhanced their learning experience. Forlin (2010) conducted a study on the attitudes of teachers towards inclusive education in Australia and his study is similar as it found that teachers who received training on inclusive education reported feeling more confident and prepared to support learners with visual impairment. However, the study also noted that teachers who did not receive training reported feeling less confident and prepared to support learners with visual impairment. Similarly, the findings of Mpofu (2017) concurred that teachers reported facing challenges in accessing assistive technology devices and resources to support learners with visual impairment. Agbenyega (2012) perceived learners with visual impairment reported feeling excluded from social interactions with their sighted peers.

The study revealed that respondents strongly agree that certain strategies can improve inclusive education practices for learners with visual impairment in Lavun LGA of Niger State. These strategies include raising awareness about visual impairment and inclusive education, providing assistive technology devices, collaboration between special education and regular teachers, providing teachers with training, and incorporating Braille and tactile graphics into the curriculum. However, respondents disagreed with the idea of ensuring school infrastructure is inaccessible. This study is in line with Ajuwon (2017) who opined that raising awareness in an inclusive environment is key in supporting the development of individuals with visual impairment. The author further noted that partnership between professionals and non-professionals are effective strategies to improve inclusive education practices for learners with visual impairment. Chimedza (2008) also added that physical accessibility is a critical factor in promoting inclusive education for all learners including those with visual

impairment as it enables them to navigate independently.

## Conclusion

The findings revealed that learners with visual impairment encounter numerous challenges in accessing inclusive education, including insufficient availability of Braille materials, limited access to assistive devices, negative societal attitudes, inaccessible school infrastructure, and lack of adaptive technology devices. Despite these challenges, the study found that trained teachers, accessible school infrastructure, and the use of Braille materials and assistive technology devices can improve the learning experience of learners with visual impairment. Additionally, the study identified strategies that can improve inclusive education practices, including raising awareness about visual impairment and inclusive education, providing assistive technology devices, collaboration between special education and regular teachers, providing teachers with training, and incorporating Braille and tactile graphics into the curriculum.

## Recommendations

The following recommendations were derived based on the findings of the study:

1. The Ministry of Education should ensure that all schools have access to Braille materials, assistive technology devices, and adaptive technology devices and providing training for teachers on how to use them.
2. Teacher training institutions should provide improve in in-serv ice training for teachers on Braille, assistive technology, and adaptive technology, as well as strategies for promoting social inclusion and accessibility.
3. School administrators should ensure that school infrastructure is accessible and inclusive for learners with visual impairment. This includes the provision of ramps, accessible toilets, and also ensure that classrooms are well-lit.
4. Parents should be involved in raising awareness about visual impairment and inclusive education. This can be achieved through improving sensitization programmes, community outreach and parent-teacher associations.

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