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EFFECT OF STUDENT-CENTRED LEARNING STRATEGY ON ENGLISH LANGUAGE ACHIEVEMENT OF STUDENTS WITH VISUAL IMPAIRMENT IN IMO STATE, NIGERIA

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ABSTRACT

Introduction: Poor English language achievement of students with visual impairment has led to the investigation of strategies that can improve their English language performance. Experts in special education have recommended the utilisation of a student-centred strategy in teaching English language to students with visual impairment.

Purpose: The study focused on the effect of student-centred learning strategy on English language achievement of students with visual impairment in Imo state.

Methodology: The study adopted quasi-experimental design and a sample of 15 students with visual impairment were randomly selected from two integrated secondary schools in Imo state. English Language Achievement Test (ELAT) was used to collect data for the study. Data obtained were analysed using mean and standard deviation to answer the research questions, while t-test and analysis of covariance were used to test the null hypothesis at 0.05 level of significance.

Result: The result revealed that student-centred strategy had more effect on English language achievement of students with visual impairment than the conventional teaching method. The result also revealed that student-centred strategy enhanced English language achievement of both male and female students with visual impairments. The study concluded that a switch from the conventional teaching method to a student-centred strategy in teaching students with visual impairment English language will enhance their English language performance and in turn, improve their academic achievement.

Recommendation: This study recommended that the government should organize regular in-service training for teachers of students with visual impairment on the use and importance of student-centred learning strategy.

Keywords: Student-centred strategy, English language achievement, Students with visual impairment, conventional teaching method

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PUBLIC INTEREST STATEMENT

The data gathered from this study would inform curriculum planners and teachers of the benefit of employing a student-centred learning strategy in teaching English language to students with visual impairment. The findings of this study would also improve the English language achievement of students with visual impairments.

INTRODUCTION

Student-centred learning strategy is one of the many teaching strategies teachers use in imparting knowledge to sighted students and students with visual impairment. It is a carefully designed innovative learning strategy that encourages the quest for knowledge among students, the use of a variety of approaches, creative constructing and the sharing of information among fellow students. Tang (2023) noted that a student-centred learning strategy is an information search process in which students utilise multiple information sources to accomplish a given task. Student-centred learning strategy being a complex process requires teachers to direct and help students with learning instructions for effective teaching and learning outcomes.

This strategy motivates and encourages students to learn by deriving meaning from a reading text, identifying the main ideas in a text, generating questions, answering questions, critical thinking, initiating ideas, assessing information, sharing information and concentrating on inquiry-based information-seeking. Garrett (2008) affirmed that a student-centred learning strategy fosters motivation, language development, cooperative learning and social skills. It involves confronting students with a problem and allowing them to analyse it, think about it, reflect on it, investigate and try to solve it.

The majority of students acquire information from written materials by means of sight. Students with visual impairment however are unable to access written information via visual modality but can only achieve this with the use of Braille (tactile medium), digital audio player or synthesis speech. Comprehending a text by students with visual impairment depends largely on the modality or channel through which the information is accessed. Garcia (2017)

noted that even if the three processes (visual, auditory and tactile) can serve to give access to information, each one works in a different way, and therefore the capacity to comprehend the information might depend on the channel.

Susanto and Nanda (2018) observed that it is more difficult for students with visual impairment to learn English language in a regular classroom because human vision serves as a major stimulus for learning a language. Learning English language is a challenge for students with visual impairment due to the restriction of the ability to perform certain activities in the manner considered normal as a result of the absence of their visual perception. Aryanti (2014) also observed that the difficulties students with visual impairment face in English classes could be put into two different categories: difficulties from the loss of sight and difficulties coming from the learning environment including difficulties from the teachers, classmates, materials and the facilities. Guanoluisa, Claudio, Cevallos, Colcha, Taipe and Pilatasig (2022) discovered that the advantage of using student-based instruction to teach English language to students with visual impairment is that it promotes the thinking process and teaches students how to process information in addition to skill and knowledge development. Mmadu (2013) also found that student centered learning strategy is an effective method of teaching English language to students with visual impairment because it enables them to understand the material better than in a conventional setting.

Hands-on experiences where by students with visual impairment directly interact with the context being studied, is the best approach to teaching English language to students with visual impairment (Yusuf, 2017 and Rooks-Ellis

& Maker, 2009). Odo (2019) observed that most integrated schools use the same teaching strategies and materials to teach sighted students and students with visual impairment. Furthermore, none of the teachers had any formal training in teaching English language to students with visual impairment. Eventually, they had several challenges and problems and they did not know how to solve them. The reading pattern of sighted students defers from that of students with visual impairment, presenting different difficult levels in comprehending a text by the two different categories of students. Visual modality offers faster comprehension of configured words on paper unlike tactile modality which requires coordination of Braille letters, interpretation of Braille dots and comprehending a text.

Student-centered approach to learning otherwise known as guided-inquiry strategy has long been neglected by secondary school teachers who prefer conventional teaching methods. Research has shown that most secondary school teachers make use of conventional teaching method (Isa, Mammam, Badar & Bala, 2020 and Ekwueme, Popoola & Orim, 2012). Burhanuddin (2012) found that student-centred learning strategy significantly enhanced English language achievement of students. A study carried out by Rook-Ellies (2014) showed that students with visual impairment perform better in student-centred teaching than in traditional teaching orientation. Vlassi and Karaliota (2012) discovered that there was statistical significant difference in the percentage mean of students who were exposed to student-centred strategy (70.67%) and that of those who were exposed to traditional teaching method (43.99%). Various studies have also shown that students of all health status benefit better from passive instruction methods such as student-centred method than in traditional teaching method (Assem, Ansah Nartey & Salifu 2023, Bay, Staver, Bryan & Hale 1992, Omede, 2015 and Yusuf, 2017).

Isa, *et al*, (2020) found that students learn better in an active group discussion process than in teacher-dominated learning process. In a study

carried out by Mmadu (2013), there was significant difference in the English language achievement of students who were taught with student-centred strategies and those who were taught using conventional teaching method in favour of students in the experimental group. Mmadu (2013) also observed that special educators' knowledge, expertise and readiness to use student-centred strategy rather than verbalisation teaching method to teach students with visual impairment is the right step towards enhancing English language achievement among students with visual impairment. This can positively influence teachers' efficiency and productivity in the course of their duties. However, Research has shown that teaching in integrated secondary schools is dominated by conventional teaching method (Ubanatu, 2016, Vlassi & Karaliota, 2012, Rook-Ellies, 2014). It therefore becomes imperative to investigate the effect of student-centred strategy on English language achievement of students with visual impairment in Imo state.

STATEMENT OF THE PROBLEM

English language achievement of students with visual impairment over the years has been very poor. This could be traced to traditional teaching method (verbalization) that does not allow students with visual impairment to engage in thorough reading of recommended English language textbooks, deriving meaning, identifying salient points, asking questions, answering questions and engaging in active discussion with their fellow students. This hampers their ability to paraphrase and present the knowledge gained from the text in their own words. The inability of students with visual impairment to comprehend a text results in continuous poor English language achievement that manifests in poor academic achievement which makes it impossible for them to pursue their career choices in higher institutions. It is imperative to help students with visual impairment overcome this great challenge. The study, therefore, investigates the effect of student-centred

learning strategy on English language achievement of students with visual impairment in Imo state.

PURPOSE OF THE STUDY

The main purpose of the study is to determine and examine:

1. the effect of student-centred learning strategy on English language achievement of students with visual impairment.
2. challenges facing English language achievement of students with visual impairment.
3. gender difference in the effect of student-centred learning strategy on English language achievement of students with visual impairment

RESEARCH QUESTIONS

1. What is the effect of student-centred learning strategy on English language achievement of students with visual impairment in integrated secondary schools in Imo state, Nigeria?
2. What are the challenges facing English language achievement of students with visual impairment in integrated secondary schools in Imo state, Nigeria?

HYPOTHESES

1. There is no significant effect of treatment on English language achievement of students with visual impairment.
2. There is no significant gender difference in the effect of student-centred learning strategy on English language achievement of students with visual impairment.

METHODOLOGY

Design

A quasi-experimental design was used with a pretest, posttest, control group factorial matrix to determine the effect of student-centred learning strategy on English language achievement of students with visual impairment. A pretest, posttest and control group quasi-experimental design was adopted because it can establish cause-and-effect relationships attributable to interventions. Pretest and

posttest scores were obtained before and after intervention respectively. The pre-test scores provided the reference point to which the post-test scores were compared. The three groups were obtained through random assignment of participants into the groups.

Population and Sample

The population of the study was made up of 212 senior secondary school students with visual impairment in integrated secondary schools in Imo State, Nigeria out of which the sample was drawn.

Purposive sampling was employed to select two Integrated Secondary Schools from two Local Government Areas in Imo state. Random sampling technique was used to select 15 students with visual impairment in Senior Secondary One (SS1) who were used for the study. 8 students were selected from Aboh Integrated Secondary School, Aboh Mbaise and 7 students were selected from Orlu Integrated Secondary School, Orlu making a total of 15 (8 boys and 7 girls) students with visual impairment and were randomly assigned to experimental and control groups. The training was carried out in the resource room for both the experimental and control groups.

Instrument for Data Collection

The instrument used for the study was English language Achievement Test (ELAT) which had three sections. Section A comprised personal data of the respondents, section B comprised ten multiple choice questions drawn by the researcher from two adapted comprehension passages. The passages were adapted from the students' English language textbook and the instrument was used for pretest and posttest exercises, while section C comprised 5 items raised on the challenges facing English language achievement of students with visual impairment in integrated secondary schools in Imo state, Nigeria. The questions in section C were based on agree and disagree.

English language Achievement Test (ELAT) was validated by experts in English language department to ascertain

the content and face validity of the instrument. To establish the reliability of the instrument, the items were subjected to Chronbach Alpha statistics. The instrument yielded a reliability coefficient of .73, which showed a high internal consistency.

Procedure for Data Collection

Treatment consisted of an experimental group and control group who were pretested before treatment and were also given posttest after treatment that lasted for nine weeks. The experimental group was taught using student-centred learning strategy, while the control group was taught with verbalization teaching method in which the teacher read the comprehension passages to the participants who answered the post-comprehension questions. The experimental group was taught using Brailled reading comprehension passages from their textbook while participants in the control

group were taught using the verbalization teaching method. Trained special educators who carried out the treatment followed the guidelines during the treatment exercise and incorporated the basic elements of student-centred learning into the experimental group’s experience.

Data Analysis

Data collected was statistically analysed using mean and standard deviation to answer the research questions while Analysis of covariance (ANCOVA) and t-test were used to test the null hypotheses at 0.05 level of significance.

RESULTS

Research Question 1: What is the effect of student-centred learning strategy on English achievement of students with visual impairment?

Table 1: Effect of Student-Centred Learning Strategy on English Achievement of Students with Visual Impairment.

Method		Pretest	Posttest
Student-Centred Strategy	Mean	20.80	50.31
	Standard deviation	5.06	6.22
	Number	7	7
Control	Mean	21.00	31.20
	Standard deviation	5.33	5.17
	Number	8	8

The results of the data analysis presented in Table 1 showed that participants in student-centred strategy group had a higher mean score of 50.31 and standard deviation of 6.22 while participants in conventional teaching method group had a mean score of 31.20 and a standard deviation of 5.17. Therefore, student-centered strategy

enhanced English language achievement of the participants more than the conventional teaching method.

Research Question 2: What are the challenges facing English language achievement of students with visual impairment?

Table 2: Challenges facing English language achievement of students with visual impairment

	Mean	SD
1. Lack of Brailled English language textbooks	3.00	0.53
2. Lack of English language textbooks in audio form	3.18	0.72
3. Lack of qualified English language teachers	3.03	0.80
4. Lack of proper curriculum tailored to students with visual impairment	3.26	0.37
5. Isolation from group discussions.	3.10	0.87

All responses to the questionnaire in Table 2 rated above the weighted average of 2.50 (Wilcox, 2021) which was set as the mean point revealing that lack of English language textbooks in a form accessible to students with visual impairment, qualified English language teachers, a curriculum tailored to students with visual impairment and isolation from group discussions are some of the issues students with visual

impairment encounter while learning English language in integrated secondary schools in Imo state, Nigeria.

HYPOTHESES

Hypothesis 1: There is no significant effect of treatment on English language achievement of students with visual impairment in Imo state.

Table 3: Analysis of covariance of the significant effect of student-centred strategy on English language achievement of students with visual impairment.

Source	Type III sum of square	df	mean square	F	Sig.
Corrected Method	1225.311	1	138.212	1.230	.000
Intercept	251.223	1	263.381	21.328	.000
Pretest	205.437	1	31.324	.591	.002
Teaching method	1260.431	3	432.654	10.576	.000
Error	1081.001	7	1370.543		
Total	2944.402	15	427.621		
Corrected total	1440.821	18			

Significant at 0.05 level of significance.

The result in Table 3 shows that there is significant effect of treatment on English language achievement of participants in the experimental group. Since the associated probability value of .000 was less than 0.05 set as the level of significance, the null hypothesis which stated that there is no significant effect of student-centred strategy on English language achievement of students with visual impairment was not accepted. This

implies that student-centred strategy has more effect on participants' English language achievement than conventional method.

Hypothesis 2: There is no significant gender difference in the effect of student-centred learning strategy on English language achievement of students with visual impairment.

Table 4: Showing significant gender difference in the effect of student-centred learning strategy on English language achievement of students with visual impairment in Imo state Nigeria.

Gender	N	X	SD	df	Cat.t-value	Critical t-value
Male	8	20.80	0.43			
				15	.176	2.00
Female	7	20.62	0.60			

Table 4 revealed that the calculated t-value is .176 and the critical t-value is 2.00, since the critical t-value is greater than the calculated t-value, the null hypothesis which states that there is no significant gender difference in the

effect of student-centred learning strategy on English language achievement of students with visual impairment is accepted. This means that student-centred learning strategy enhanced English language achievement

of both male and female students with visual impairments.

DISCUSSIONS

The findings of the study revealed that student-centred strategy had more effect on the English language achievement of students with visual impairment than the conventional method since participants in the experimental group (50.31) had higher mean scores than the control group (31.20). The higher mean score of participants in the experimental group who were taught using student-centred strategy which allowed them to read and reread the passages on their own could be attributed to the fact that they had better interaction with the reading materials than those in the control group who only listened to their teacher. This finding is in agreement with the findings of Yusuf (2017) who reported that students with visual impairment exposed to student-centred strategy achieved higher than their counterparts taught using conventional teaching method. Also, Burhanuddin (2012) found that student-centred strategy impacted positively on English language achievement of students with visual impairment. This implies that if teachers make use of student-centred strategy in teaching students with visual impairment, the poor lingering English language achievement among students with visual impairment would be eliminated or drastically reduced giving them ample opportunity to pursue their career choices in higher institutions.

Odo (2019) found that students who were exposed to student-centred strategy performed significantly better than students in the control group who were taught using conventional teaching method. In addition Erwin, Perkins, Ayala, Fine, and Rubin (2001) concluded that a meaningful learning environment for students with visual impairment is one in which teachers provide guided opportunities for the students to pursue their interests and answer their questions. Avulia, Peodjiastoet and Agustini (2018) reported that student-centred based instructions positively influenced the academic performance of

participants in the experimental group who performed better than participants in the control group taught with the lecture method. These findings corroborate that of Mkpa and Ede (2013) who reported that student-centred strategy greatly enhanced English language achievement of students with visual impairment who were taught using student-centred and reflective teaching strategies.

Mmadu (2013) reported that student-centred strategy enhanced English language achievement among students with visual impairment in secondary schools. However, the findings of this study disagree with the findings of Ubanatu (2016) who discovered that there was no significant difference in the mean achievement scores of students taught with student-centred strategy and those taught with conventional teaching method. Disparity in research findings could be attributed to the time of the study, method of data collection, location, exposure and educational background of the participants. Nevertheless, most research findings revealed that student-centred learning strategy can enhance English language achievement of students with visual impairment and overall learning environment including difficulties from the teachers, friends and academic achievement in general.

The second finding of this study which investigated the challenges facing English language achievement of students with visual impairment revealed that lack of English language textbooks in accessible format, qualified English language teachers, a curriculum tailored to students with visual impairment and isolation from group discussions are some of the issues students with visual impairment encounter while learning English language in integrated secondary schools in Imo state, Nigeria. This corroborates the findings of Aryanti (2014) who investigated the difficulties students with visual impairment face in learning English language in an inclusive school and found that learning environment, untrained teachers, discrimination and lack of learning materials and facilities are some of the

issues students with visual impairment encounter in learning English language.

Similarly, the findings are in agreement with that of Susanto and Nanda (2018) who carried out an ethnographic case study and observed that the students with visual impairment received inadequate modifications of instruction, teachers are not aware of the specific needs of the students and the general implications of their impairments and they are not aware of what the cognitive implications of the visual impairments for the students are. This results in poor English language achievement for students with visual impairment. This concurs with the findings of Omede (2015) who investigated the challenges in educating students with visual impairment and modalities for ensuring quality assurance in inclusive schools and discovered that the educational needs of the students with visual impairment include computer application, optical aids and Braille writing materials, issues of mobility, funding, library resources, personnel availability and physical infrastructural facilities.

The findings also revealed that both male and female students with visual impairment face the same challenges in learning English language in integrated secondary schools in Imo state. This study aligns with that of Olaitan (2017) who investigated the effects of gender on the Ekiti state secondary school students' achievement in English language and revealed that there is no significant difference between the mean achievement scores of male and female students who were taught English language using the student centred learning approach as measured by mean scores from English language achievement test. The findings of this study also concur with that of Almoabdi (2023) who investigated the difference in English language achievement of both male (24) and female (24) students with visual impairment and discovered that gender does not affect English language achievement of students with visual impairment irrespective of learning method.

The finding of this study contradicts that of Cooper, Thomas & Bailey, Brad & Briggs, Karen. (2015) who found that in English language classes where student-centered method is used to teach English language, female students perform significantly better than male students.

CONCLUSION

Based on the findings of this study, it was concluded that a switch from the conventional teaching method to a student-centred strategy in teaching students with visual impairment English language will enhance their English language performance and in turn, improve their academic achievement.

The study also established that lack of English language textbooks in a accessible format, qualified English language teachers, a curriculum tailored to students with visual impairment and isolation from group discussions are some of the issues students with visual impairment encounter while learning English language in integrated secondary schools in Imo state, Nigeria.

RECOMMENDATIONS

Based on the findings of this study the following recommendations were proffered:

1. The government should organize regular in-service training for teachers of students with visual impairment on the use and importance of student-centred strategy.
2. Teachers of students with visual impairment should use student-centred strategy in teaching students with visual impairment, particularly at the secondary school level.
3. The curriculum planners need to acknowledge the efficacy of student-centred strategy when planning the curriculum for students with visual impairment.

Conflict of Interest: The author declares no conflict of interest

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Disclaimer Statement

I certify that this work is not an extraction of any work.

Author's Bionote

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