

## Relationship between School Environment and Academic Achievement of Students with Hearing Impairment in Bayelsa State

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### Abstract

*The study examined the relationship between school environment and academic achievement of students with hearing impairment in Bayelsa State. The study adopted correlational research design. The population and the sample of the study comprised 132 students with hearing impairment in Bayelsa State School for Children with Special Needs. The study adopted census sampling technique. School Environment Components Questionnaire and Test in English Language and Mathematics were used for data collection. The SECQ yielded a reliability coefficient of 0.76 while Kuder-Richardson 21 was used in determining the reliability of the English Language and Mathematics Test which yielded a coefficient of 0.76 and 0.78 respectively. Pearson's Product Moment Correlation was used in answering the research questions at 0.05 level of significance. Findings showed that availability of school's physical facilities, pupil-teacher interaction, teaching/learning environment and teaching/learning resources significantly relate to the academic achievement of students with hearing impairment in Bayelsa State.*

**Keywords:** School environment, Academic achievement, Hearing impairment, Bayelsa State

### INTRODUCTION

In the world today, the right to education for every child is seen as a fundamental human right. Education is an instrument for social change and development thus helping to close the gap between different sectors of society (National Council of Educational Research and Training, 2006 in Ofojekwu & Adebisi, 2017). Education is seen as a tool for empowerment to the hearing

impaired in order to lead an independent life (Kyere, 2009). As such, providing quality education service delivery is basically necessary for students with hearing impairment. Providing quality education for students with hearing impairment in Nigeria is very challenging, because of physical and material requirements involved. These include; appropriate teaching approaches, adequate funding, relevant teaching and learning materials, knowledgeable and skilled teachers, well planned school buildings and facilities, just to mention a few.

Education of students with hearing impairment and other special needs students have not been given the needed attention in Africa and in Nigeria and the uninformed members of the society see them as cursed people. In some cultural context, they were forbidden from interacting with others in the society. They are most times neglected by their parents, family members and even members of their communities. Geni (2014) noted that in Africa for a very long time, these individuals were identified as the “forgotten ones”. Unlike visual impairment (blindness) which attract sympathy from individuals. Students with hearing impairment attracted little or no sympathy at all.

Hearing impairment is a generic term that is used to represent all aspects and degrees of hearing loss. Ugbo (2017) sees it as a partial or complete inability to perceive sound in one or both ears due to congenital and /or adventitious factors. Okuoyibo (2006) cited in Ugbo, et al (2018) agrees that hearing impairment is a generic term, which describes any condition that reduces the hearing acuity of an individual and makes it impossible and makes it impossible for him or her to perceive and interpret auditory sounds (signals). From the above definitions however, one would perceive that there are other sub-groups under hearing impairments. This includes; Deaf (D) and Hard – of – Hearing (HH).

Students with Hearing Impairment are learners whose organs of hearing are either partial or totally non-functional to hear (Oriade, et al 2017). This implies that students with hearing impairment have little or no hearing at all which are categorized as either Hard-of-Hearing or Deaf. Learners that are Hard-of-hearing are whose senses of hearing are defective but functional with the use of hearing aids. They have residual hearing and on the other hand the deaf are those students whose hearing is non-functional without the use of amplification system (Aiyaleso, 2017). The Education of students with Hearing impairment in Bayelsa state suffers a lot of set-backs as compared to other states in Nigeria. Most of the children with hearing impairment in Bayelsa State are not opportune to go to school, because of where the school for children with special needs is being located; and because Bayelsa State has not started operating on inclusive educational system. The importance of a safe and healthy environment to a student cannot be

overemphasized. A supportive and favourable school environment with enriched learning facilities, make students more comfortable, more concentrated in their academic activities that is likely to result in high academic Achievement. Arul-Lawrence (2012) noted that children spend most of their time in school, and this school environment is exerting influence on achievement through curricular, teaching technique and relationship.

Ajayi (2015) noted that the school environment is made up of social environment, human beings with various levels of interaction and the physical environment, which includes equipments, materials and various aids for learning as well as buildings, to house many objects. Ojogwu and Dagbo (2013), adds that the school environment must have the principal, vice principals, the teachers, school nurse, guidance counselor, house masters and cooks. Having respective roles to play to make sure learners with hearing impairment enjoy optimum service. The physical facilities in the school environment are necessary resources for the effective running of any school which includes: location of school, building, furniture, equipments, personnel resources, textbooks and other instructional aids. When these facilities are enough in their right proportions, then productivity is expected to be high.

Lynette (2016) noted that acoustic friendly environment will speed up the learning of a hearing impaired student and promote quality classroom participation. Light in the classroom is very important as this will make for good visibility and facial cues for effective lip reading. There is need to add carpets, window treatments or acoustical wall/ceiling coverings to absorb sound and reduce noise from furniture scrapping on hard surfaces by attaching rubber shoes to the legs of students desks and chairs. Provision for written or captioned school environments should also be put in place.

The school environment for the students with hearing impairment in Bayelsa State, as at the time of this research was characterized by mash, swampy-like pathways and playgrounds, inadequate classrooms for instruction, inadequate teaching and learning resources, inadequate special teachers to meet the needs of the students with hearing impairment. Mweri (2014) noted that the few available teachers have little or no knowledge of sign language which is the primary language of communication for the students with hearing impairments. They equally lack the linguistics know how to impart education to SHI, who use visual mode of communication, while those teachers use oral mode of communication. Given this background, the researcher seeks to find out the relationship between school environment and academic achievement of students with hearing impairment in Bayelsa State.

According to the Centre for Disease and Control (CDC), 1.3 out of 1000 8-year-old has bilateral hearing loss (loss of hearing in both ears) of 40 decibels (dB) or more. 14.9 percent of children between the ages of 6 and 9

have hearing loss of at least 16 dB in one or both ears. Even hearing loss in only one ear has a tremendous impact on academic achievement; research shows anywhere from 25 to 35 percent of children with unilateral hearing loss are at risk of failing at least one grade. Hearing and learning are connected and its ability is critical to speech and language development, communication and learning. Hearing loss causes delay in the development of speech and language, and these delays lead to learning problems, often resulting in poor academic achievement. Unfortunately, since poor academic achievement is accompanied by inattention and sometimes poor behaviour, children with hearing loss are often misidentified as having learning disabilities such as attention deficient hyperactive disorder.

### **Statement of the Problem**

The education of students with hearing impairment is still segregated, with only one government school (Bayelsa State School for Children with Special Needs, Opolo) in the entire state. Based on this fact, one would have however expected that the school environment for these special needs students would have been in a 'super state', as school environment goes a long way to influence the academic achievement of students.

Statistics from the internal examinations in Bayelsa State indicates that the academic achievements of these students have been relatively poor. There are many factors that can contribute to this, among which are likely to be the school's physical environment such as the availability and accessibility of physical facilities, social environment such as the teacher/pupil interaction and classroom environment, teaching/learning resources and teacher's use of instructional materials.

Although, individuals, researchers and the government have made tremendous efforts toward addressing these challenges facing students with hearing impairment. It is on this, this paper seeks to establish the relationship between school environment and academic achievement of students with hearing impairment in Bayelsa State.

### **Purpose of the Study**

This study sought to ascertain the relationship between school environment and academic achievement of student with hearing impairment in Bayelsa state. In specific terms, the study seeks to achieve the following:

1. To determine the relationship between availability of the schools physical facilities and academic achievement of students with hearing impairment in Bayelsa state.
2. To determine the relationship between pupil/teacher interaction and academic achievement of students with hearing impairment in Bayelsa state.

3. To ascertain the relationship between teaching/learning environment and academic achievement of students with hearing impairment in Bayelsa state.
4. To determine the relationship between teaching-learning resources and academic achievement of students with hearing impairment in Bayelsa state.

### **Research Questions**

- (1)What is the relationship between availability of school's physical facilities and academic achievement of students with hearing impairment in Bayelsa State?
- (2)What is the relationship between pupil-teacher interaction and academic achievement of students with hearing impairment in Bayelsa State?
- (3)What is the relationship between teaching/learning environment and academic achievement of students with hearing impairment in Bayelsa State?
- (4)What is the relationship between teaching/learning resources and academic achievement of students with hearing impairment in Bayelsa State?

### **Hypotheses**

**HO<sub>1</sub>:** There is no significant relationship between availability of schools' physical facilities and academic achievement of students with hearing impairment.

**HO<sub>2</sub>:** There is no significant relationship between pupil-teacher-interaction and academic achievement of students with hearing impairment.

**HO<sub>3</sub>:** There is no significant relationship between teaching/learning environment and academic achievement of students with hearing impairment?

**HO<sub>4</sub>:** There is no significant relationship between teacher's use of teaching/learning resources and academic achievement of students with hearing impairment?

### **METHODOLOGY**

The study adopted the correlational survey design. This type of design is used to establish the relationship between two or more variables which is indicate the direction and magnitude of the relationship between variables, but it does not indicate the cause (Ebong, et al 2015). Using the census sampling techniques, the population of this study comprised all students with hearing impairments in the Bayelsa State School for Children with Special Needs,

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Opolo. A total of 132 students were used for the study. The questionnaires were used as instrument to generate data and analyzed using correlation coefficient with Statistical Package for Social Sciences (SPSS) version 20.0, for the research questions and hypotheses. Pearson r was used in answering the research questions and four null hypotheses at 0.05 level of significance.

**DATA PRESENTATION**

**Table 1: Relationship between availability of school’s physical facilities and academic achievement of students with hearing impairment**

Correlations

		Available/accessibility of school’s physical facilities	Academic achievement of students with hearing impairment
Available/accessibility of school’s physical facilities	Pearson Correlation	1	.613**
	Sig. (2-tailed)		.000
	N	132	132
Academic achievement of students with hearing impairment	Pearson Correlation	.613**	1
	Sig. (2-tailed)	.000	
	N	132	132

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Data in the table 1 above showed that the correlation between availability and accessibility of school’s physical facilities and academic achievement of students with hearing impairment is 0.61. This reveals that there is a positive but moderate relationship between availability and accessibility of school’s physical facilities and academic achievement of students’ with learning impairment in Bayelsa State. Furthermore, a p-value of 0.000 was obtained which indicated that there is a significant relationship between availability and accessibility of school’s physical facilities and academic achievement of students with hearing impairment.

**Table 2: Relationship between pupil-teacher interaction and academic achievement of students with hearing impairment**

Correlations

		Pupil-teacher interaction	Academic achievement of students with hearing impairment
Pupil-teacher interaction	Pearson Correlation	1	.661**
	Sig. (2-tailed)		.000
	N	132	132
Academic achievement of students with hearing	Pearson Correlation	.661**	1

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impairment	Sig. (2-tailed)	.000	
	N	132	132

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Data in Table 2 above revealed that the correlation between pupil-teacher interaction and academic achievement of students with hearing impairment is 0.66. This reveals that there is a high positive relationship between pupil-teacher interaction and academic achievement of students with hearing impairment in Bayelsa State. Furthermore, a p-value of 0.000 was obtained which indicated that there is a significant relationship between pupil-teacher interaction and academic achievement of students with hearing impairment.

**Table 3: Relationship between teaching/learning environment and academic achievement of students with hearing impairment**  
Correlations

		Teaching/learning environment	Academic achievement of students with hearing impairment
Teaching/learning environment	Pearson Correlation	1	.633**
	Sig. (2-tailed)		.000
	N	132	132
Academic achievement of students with hearing impairment	Pearson Correlation	.633**	1
	Sig. (2-tailed)	.000	
	N	132	132

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Data in Table 3 above indicated that the correlation between teaching/learning environment (x) and academic achievement (y) of students with hearing impairment is 0.63. This shows that there is a high positive relationship between teaching/learning environment and academic achievement of students with hearing impairment in Bayelsa State. Furthermore, a p-value of 0.000 was obtained which indicated that there is a significant relationship between teaching/learning environment and academic achievement of students with hearing impairment.

**Table 4: Relationship between teaching/learning resources and academic achievement of students with hearing impairment**  
Correlations

		Teaching/learning resources	Academic achievement of students with hearing impairment
Teaching/learning resources	Pearson Correlation	1	.621**
	Sig. (2-tailed)		.000
	N	132	132
Academic achievement of students with hearing impairment	Pearson Correlation	.621**	1
	Sig. (2-tailed)	.000	
	N	132	132

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Data in Table 4 above showed that the correlation between teaching/learning resources and academic achievement (y) of students with hearing impairment is 0.62. This indicated that there is a high positive relationship between teaching/learning resources and academic achievement of students with hearing impairment in Bayelsa State. Furthermore, a p-value of 0.000 was obtained which indicated that there is a significant relationship between teaching/learning resources and academic achievement of students with hearing impairment.

## DISCUSSION OF FINDINGS

The discussion of findings is based on the research questions and null hypotheses stated in the study.

### **Relationship between availability of school's physical facilities and academic achievement of students with hearing impairment.**

The relationship between availability/accessibility of school's physical facilities and academic achievement of students with hearing impairment is 0.61. The result indicates that there is a high positive relationship between availability of school's physical facilities and academic achievement of students with hearing impairment in Bayelsa State. The positive relationship between availability of school's physical facilities and academic achievement of students with hearing impairment in Bayelsa State means that as scores on availability of school's physical facilities increases there is a corresponding improvement or increase in the scores on academic achievement of students with hearing impairment in Bayelsa State and vice versa. The result therefore is that there is significant high positive relationship between availability/accessibility of school's physical facilities and academic



achievement of students with hearing impairment in Bayelsa State. The findings of the present study is in agreement with Geni (2014) who found that availability of school's physical facilities is positively related to the academic achievement of students with hearing impairment. The degree of association or relationship between availability/accessibility of school's physical facilities and academic achievement of students with hearing impairment in Bayelsa State is 0.61.

**Relationship between pupil-teacher interaction and academic achievement of students with hearing impairment in Bayelsa State.**

The relationship between pupil-teacher interaction and academic achievement of students with hearing impairment in Bayelsa State is 0.66. The result indicates that there is a high positive relationship between pupil-teacher interaction and academics achievement of students with hearing impairment in Bayelsa State. The high positive relationship between pupil-teacher interaction and academic achievement of students with hearing impairment means that as scores on pupil-teacher interaction increases, these is a corresponding improvement or increase on the scores on academic achievements of students with hearing impairment in Bayelsa State and vice versa. The result therefore is that there is a significant positive relationship between pupil-teacher interaction (x) and academic achievement of students with hearing impairment (y) in Bayelsa State. The finding of the present study is in agreement with Pwokah (2016) who found out that pupil-teacher interaction is positively related to the academic achievement of students with hearing impairment.

**Relationship between teaching/learning environment and academic achievement of students with hearing impairment in Bayelsa State.**

The relationship between teaching/learning environment and academic achievement of students with hearing impairment in Bayelsa State is 0.63. The result shows that there is a high positive relationship between teaching/learning environment and academic achievement of students with hearing impairment in Bayelsa State means that as scores on teaching/learning environment increase, there is a corresponding improvement or increase in the scores on academic achievement of students with hearing impairment in Bayelsa State and vice versa. The result therefore is that there is a significant positive relationship between teaching/learning environment and academic achievement of students with hearing impairment in Bayelsa State. The finding of the present study is in agreement with Maingi-Lore (2016) who found out that teaching/learning environment is positively related to the academic achievement of students with hearing impairment.

### **Relationship between teaching/learning resources and academic achievement of students with hearing impairment in Bayelsa State.**

The relationship between teaching/learning resources and academic achievement of students with hearing impairment in Bayelsa State is 0.62. This result indicates that there is a positive relationship between teaching/learning resources and academic achievement of students with hearing impairment in Bayelsa State. The positive relationship between the two variables means that as scores on teaching/learning resources increase, there is a corresponding improvement or increase in the scores on academic achievement of students with hearing impairment in Bayelsa State and vice versa. The result is that there is a significant positive relationship between teaching/learning resources and academic achievement of students with hearing impairment in Bayelsa State. This finding is in agreement with Lynette (2016) who also found out that teaching/learning resources and academic achievement of students with hearing impairment.

### **CONCLUSION**

Based on the findings of the study, the researcher concludes as follows:

1. Availability of school facilities significantly relate with the academic achievement of students with hearing impairment in Bayelsa State.
2. Pupil-teacher interaction significantly relate with the academic achievement of students with hearing impairment in Bayelsa State.
3. Teaching/learning environment significantly relates to the academic achievement of students with hearing impairment in Bayelsa State.
4. Teaching/learning resources significantly relate with the academic achievement of students with hearing impairment in Bayelsa State.

### **RECOMMENDATIONS OF THE STUDY**

Based on the findings of the study, the researcher made the following recommendations

1. Government should provide instructional materials, facilities and equipment for effective teaching and learning in segregated schools.
2. Teachers should ensure effective and healthy interactions with students with hearing impairment. This will enhance effective learning among them.
3. Teaching and learning environment for the students with hearing impairment should be conducive. This will facilitate learning among them.

4. Teaching and learning resources that will enhance effective teaching and learning among the students with hearing impairment should be provided by the government.
5. Managers of Bayelsa State School for children with special needs should be given training on maintenance culture. This will help in keeping the facilities already on ground secured for use by students with hearing impairment.

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