

## Influence of school Physical Facilities and Teachers Gender on the Academic Performance of Secondary School Students in Agbani Education Zone of Enugu State, Nigeria.

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### ABSTRACT

The study ascertained the influence of school physical facilities and teachers gender on the academic performance of secondary school students in Agbani Education Zone of Enugu State, Nigeria. A research question and a research hypothesis were formulated to guide the study. It was tested at 0.05 level of significance. The study adopted the descriptive survey research design and was carried out in all the 45 public secondary schools in Agbani Education Zone of Enugu State, Nigeria. The population for the study consisted of all the 1462 teachers currently serving in the 45 public secondary schools in the study area. Proportional random sampling technique was used to select 146 teachers for the study. A self structured instrument called Influence of physical facilities on Teachers Gender and Academic Performance Scale' (IOP-FOT-GAAPS) with 14 items and a 4- point response scale was used to collect data for the study. The instrument was face validated by 3 experts and its internal consistency ascertained using Cronbach Alpha reliability estimate. A coefficient of .65 was obtained. 146 copies of IOP-FOT-GAAPS was administered to the 146 respondents but the researcher and her assistants were able to retrieve 121 copies. Mean, Standard deviation and grand mean was used to answer the research the research question while t-test statistic was used to test the research hypothesis. It was found that school physical facilities and teachers gender influence the academic performance of secondary school students in Agbani Education Zone. Based on the findings of the study, it was recommended that state government should device means of providing incentives to motivate teachers in other to bring a better academic/learning outcome among secondary schools in Agbani Education Zone.

Keywords: School Physical facilities, Teachers Gender, Academic Performance.

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### INTRODUCTION

School facilities have been observed as a potent factor to quantitative education. The importance to teaching and learning of the provision of adequate instructional facilities for education cannot be over-emphasized. The dictum that "teaching is inseparable from learning but learning is not separable from teaching" is that teachers do the teaching to make the students learn, but students can learn without the teachers. [1] opined that learning can occur through one's interaction with well equipped environment or physical facilities. Environment here refers to facilities that are available to facilitate students learning outcome. It includes books, audio-visual, software and hardware of educational technology; so also, size of

classroom, sitting position and arrangement, availability of tables, chairs, chalkboards, shelves on which instruments for practical's are arranged [2] [3].

Writing on the role of school facilities in teaching, [4] submitted that no effective science education programme can exist without equipment for teaching. This is because facilities enable the learner to develop problem-solving skills and scientific attitudes. In their contribution, [5] reiterated that when facilities are provided to meet relative needs of a school system, students will not only have access to the reference materials mentioned by the teacher, but individual students will also learn at their own paces. The net effect of this is increased

overall academic performance of the entire students.

Commenting on why high academic attainment is not in vogue in Nigeria secondary schools, [6] identified poor and inadequate physical facilities, obsolete teaching techniques, overcrowded classrooms among others, as problems. Throwing more light on school physical facilities and moral guiding provision, [7] asserted that school facilities when provided will aid teaching learning programme and consequently improve academic performance of students while the models guiding their provision to schools could take any form as rational bureaucratic and or political model. [8] noted that facilities form one of the potent factors that contribute to academic performance of students in the school system. They include the school buildings, classroom, accommodation, libraries, laboratories, furniture, recreational equipment, apparatus and other instructional materials. He went further to say that their availability, relevance and adequacy contribute to academic performance of students. He however, quickly added that unattractive school buildings and overcrowded classrooms among others contribute to poor academic performance of the secondary school students.

On the issue of school physical facilities and teachers gender on the academic performance of secondary school students, [9] in a study on how a teacher's gender affects boys and girls affirms that one theory asserts that the teacher's gender shapes communication between teacher and students, while another says the teacher acts as a gender-specific role model, regardless of what he or she says or does. According to this second theory, students are more engaged, behave more appropriately, and perform at a higher level when taught by one who shares their gender. Girls have better educational outcomes when taught by women and boys are better when taught by men [2].

Thus, being concerned about physical facilities and teachers gender on the academic performance in general, we need to pay attention to government

owned secondary schools in Agbani Education Zone. The question is: Are the governments/education managers able to offer their teachers a safe, pleasant, and supportive working physical facilities? What about adequate compensation plan that attract and retain good teachers and motivate them to do their best? Are teachers promoted based on merits or favouritism? What effect does the impact of uncomfortable physical environment have on student's academic performance? They could be a definite determinant that is really responsible for the constant failure or success of various schools. To find out this, it has become necessary to investigate the nature and pattern for our secondary schools so as to evaluate the academic performance of students with respect to physical facilities. For instance, secondary school students academic performance in Agbani Educational Zone cannot be guaranteed where instructional space such as standard classrooms, libraries, infrastructural facilities are in dilapidated conditions, lack of trained teachers and other facilities that promote teaching and learning are also in short supply which may tend to influence students academic performance in school. The researcher has observed with dismay that the school physical facilities in the study area is nothing to write home about. It is on this premise that the researcher is motivated to appraise the influence of physical facilities and teacher genders on the academic performance of secondary school students in Agbani Education Zone of Enugu State. This gap in knowledge and learning, which is the crux of this study is what the researcher is interested on and intends to fill by embarking on this study.

#### **Purpose of the Study**

The general purpose of this study is to ascertain the extent the influence of school physical facilities and teachers gender on the academic performance of secondary school students in Agbani Education Zone of Enugu State.

Specifically the study was designed to;

1. Find out the extent to which school physical facilities and teachers gender influence the academic performance

of secondary school students in Agbani Education Zone of Enugu State.

### Research Question

The following research question guided the study.

1. To what extent do school physical facilities and teachers gender influence the academic performance of secondary school students in Agbani Education Zone of Enugu State?

The study adopted a descriptive survey design. The area of the study was Agbani Education Zone of Enugu State, Nigeria. The population for the study consisted of 1462 teachers currently teaching in the existing 45 government owned secondary schools in the area. Of these 73 are female teachers while 48 are male teachers. To ensure that a representative sample was chosen in accordance with [4], 10% of the population was drawn, thus, giving the sample of teachers 146 teachers. This the researcher used to collect the much needed data for the study as respondents. The instrument used for data collection was a 14 items questionnaire called 'Influence of physical facilities on Teacher Gender and Academic Performance Scale' (IOP-FOT-GAAPS). The instrument had a 4-point response scale with response category of Very great extent (VGE)---4 points; Great extent (GE)-----3 points; Little Extent (LE)---2 points and Very little extent (VLE)—1 point. The instrument was validated by three experts; two from Guidance and counselling Department and one from Faculty of Education, Enugu State university of Science and Technology

### Research Hypotheses

The following research hypothesis guided the study and were tested at .05 level of significance.

**H01:** There is no significance difference between the mean ratings of male and female teachers on the influence of school physical facilities on the academic performance of secondary school students in Agbani Education Zone of Enugu State.

### METHODOLOGY

(ESUT), Enugu. The internal consistency of the instrument was determined using Cronbach Alpha reliability estimate and it yielded a reliability coefficient of .65. The study was carried out in all the 45 secondary schools in Agbani Education Zone. Out of one hundred and forty six questionnaire distributed one hundred and twenty one copies were retrieved from the respondents representing 82.88 percent return rate. Data collected were analyzed using mean with standard deviation. Any mean score of 2.50 and above was regarded as Great Extent while any mean below 2.50 was regarded as Little Extent. The one null hypothesis were tested at .05 level of significance using t-test statistic. If the calculated t-value was less than the critical table value of  $\pm 1.96$  for the required degree of freedom of 119, the null hypothesis was not rejected but if the calculated t-value was equal to or greater than the critical, t-value, the null hypothesis was rejected.

**Research Question 1:** To what extent do physical facilities and teachers gender influence the academic performance of secondary school students in Agbani Education Zone of Enugu State?

**Table 1: Mean (  $\bar{X}$  ) Rating with Standard Deviation of the Extent to which School Physical Facilities and Teachers Gender Influence the Academic Performance of Secondary school Students in Agbani Education Zone of Enugu State, Nigeria.**

S/ N	ITEMS	4 VGE	3 GE	2 LE	1 VLE	$\bar{X}$	SD	Decision
1	Classroom	71	29	15	06	3.36	0.88	GE
2	School buildings	04	19	47	51	1.80	0.82	LE
3	Accommodation	17	24	39	41	2.14	1.04	LE
4	Libraries	67	31	15	08	3.29	0.92	GE
5	Laboratories	61	27	18	15	3.10	1.07	GE
6	Furniture	77	21	10	13	3.33	1.02	GE
7	Recreational Equipment	07	09	39	46	1.99	0.95	LE
8	Instructional materials	55	37	21	08	3.14	0.93	GE
9	Audio-visual	14	21	39	47	2.01	1.01	LE
10	Storage space	05	19	39	58	1.76	0.86	LE
11	Tables	54	33	29	05	3.12	0.91	GE
12	Chairs	66	23	17	15	3.15	1.08	GE
13	Chalkboards	51	45	13	12	3.11	0.95	GE
14	Shelves	59	33	27	02	3.23	0.85	GE
<b>N = 121</b>		<b>Grand Mean</b>				<b>2.83</b>	<b>0.95</b>	<b>GE</b>

Table 1 shows that of the 14 items on the extent to which the school physical facilities and teachers gender influence the academic performance of secondary school students in Agbani Education Zone. The respondents agreed with 9 items 1, 4, 5, 6, 8, 11, 12, 13, and 14 as they recorded mean scores of (3.36, 3.29, 3.10, 3.33, 3.14, 3.12, 3.15, 3.11 and 3.23) which are above the cut-off point of 2.50. They however disagreed with 5 of the item (2, 3, 7, 8 and 9) with mean scores of (1.80, 2.14, 1.99, 2.01 and 1.76). The standard deviation for all the items are

small signifying that there is homogeneity in the responses of the respondents. The table also shows that the respondents grand mean score of the extent to which the school physical facilities influence the academic performance of secondary school students in Agbani Education Zone is 2.75. From the foregoing, the data raised indicated that classroom, libraries, laboratories, furniture, instructional materials, tables, chairs, chalkboards and shelves are the school physical facilities that influence the academic performance of secondary school students in Agbani

Education Zone to a great extent. Based on the decision rule for the interpretation of the respondents data, the answer to research question 1 is that school physical facilities influence the academic performance of secondary school students in Agbani Education Zone.

**H01:** There is no significance difference between the mean ratings of male and female teachers on the influence of school physical facilities on the academic performance of secondary school students in Agbani Education Zone of Enugu State.

**Table 2: t-test Result of the Mean Rating of Male and Female Teachers on the Influence of School Physical Facilities on the Academic Performance of Secondary School Students in Agbani Education Zone of Enugu State.**

Gender	N	$\bar{X}$	SD	df	t-cal	t-crit	Decision
Female Teachers	73	2.83	0.95	119	0.91	±1.96	NS Do not reject Ho <sub>1</sub>
Male Teachers	48	2.53	0.81				

Significant at  $P < .05$ ,  $df = 119$ , critical t-value =  $\pm 1.96$

The t-test analysis in table 2 above indicates that the calculated t- value is 0.91 while the critical t-value is  $\pm 1.96$  at .05 level of significance. This implies that the calculated t-value is less than the critical t- value. Thus, there is no

significance difference between the mean ratings of male and female teachers on the influence of school physical facilities on the academic performance of secondary school students in Agbani Education Zone of Enugu State.

DISCUSSION OF THE FINDINGS

The first research question sought to ascertain the influence of school physical facilities and teachers gender influence the academic performance of secondary school students in Agbani Education Zone of Enugu State. The result in Table 1 showed that school physical facilities such as classroom, libraries, laboratories, furniture, instructional materials, tables, chairs, chalkboards and shelves are the school physical facilities that influence the academic performance of secondary school students in Agbani Education Zone to a great extent. The first research hypothesis tried to ascertain if there is a significant difference in the mean ratings of male and female teachers on the influence of school physical facilities on the academic performance of secondary school students in Agbani Education Zone of Enugu State. The analysis of the t-test comparison according to Table 2 showed that the computed t (0.91) is less than the critical t-value ( $\pm 1.96$ ) at .05 level of significance. Thus, going by the decision rule, there is no significant difference in the mean ratings of male and female

teachers on the influence of school physical facilities on the academic performance of secondary school students in Agbani Education Zone of Enugu State. The findings is in line with the findings of [7] [8] who held that classroom, libraries, laboratories, furniture, instructional materials, tables, chairs, chalkboards and shelves are the school physical facilities that influence the academic performance of secondary school students in Agbani Education Zone. In the same line of thought [3] submitted that no effective science education programme can exist without equipment for teaching. [2] reiterated in their contributions that when facilities are provided to meet relative needs of a school system, students will not only have access to the reference materials mentioned by the teacher, but individual students will also learn at their own paces. The net effect of this is increased overall academic performance of the entire students. This findings is in agreement with the findings of [4], who held that school physical facilities form

one of the potent factors that contribute to academic performance of students in the school system. They include the school buildings, classroom, accommodation, libraries, laboratories, recreational equipment, and other instructional materials. He went further to say that their availability, relevance and adequacy contribute to academic performance of students. On the issue of physical facilities and teachers gender on

the academic performance of secondary school students, [4] in a study held that teacher's gender enhance secondary school students academic performance. [5] in his findings contends that male students are more engaged, behave more appropriately, and perform at a higher level when taught by one who shares their gender while female students have better educational outcomes when taught by women.

#### CONCLUSION

Conclusively from the above analysis and interpretations done and the information from related literature, it implies that

1. Classroom, libraries, laboratories, furniture, instructional materials, tables, chairs, chalkboards and shelves are the school physical facilities that influence the academic performance of secondary school students in Agbani Education Zone to a great extent.

#### **Educational Implication of the Findings**

First, it was revealed from the findings that school physical facilities were not well managed. Physical facilities as the quantitative aspect of the school system

cannot be divulged from the qualitative aspect if educational objectives must be attained. This is because most parents and students make their assessment of schools from the availability of school physical facilities in the first instance. This study revealed that school physical facilities are not in good quantity. Even those available are totally dilapidated and are in a sorry state. This was emphasized by Eze (2018) that the Board and management of School Boards should be provided with enough fund and given the leverage to use this fund in providing school physical facilities in good number if educational objectives can be achieved.

#### RECOMMENDATION

To achieve this mission the following recommendation was made based on the finding of this study.

1. The state government should device means of providing incentives to

motivate teachers in other to bring a better academic/learning outcome among secondary schools in Agbani Education Zone

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