

Perceived Influence of Teaching and Learning Conditions on Academic Achievement

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Abstract:- The study investigated how teaching and learning conditions influence academic achievements in Junior High Schools in Ada East District, Greater Accra Region. This study adopted a cross-sectional descriptive survey design with a quantitative approach. The respondents were teachers and students from ten (10) selected public Junior High Schools in Ada East District. Proportionate and simple random sampling techniques were used in selecting 300 respondents (students = 200, teachers = 100) for the study. The data for the study were collected using adapted questionnaire developed by Makaula, 2018, Means, Standard Deviations, Independent t-test and Linear Regression were adopted for data analysis. The findings revealed that the number one strategy to improve academic achievement in schools was that teachers should mark students' works on time and give feedback promptly followed by teachers giving enough assignments and exercises. The study further showed no statistically significant difference between Junior High School males' and females' students regarding strategies to improve academic achievements, and also there was a significant positive effect of teaching and learning conditions on academic achievements. It was concluded that teachers' activeness in giving out enough assignments and providing feedback promptly helps to improve academic achievement. It was also concluded that conducive teaching and learning activities coupled with a safe school environment are the necessary conditions to improve academic achievement. So, effective strategies should be put in place to ensure improvement in the student's academic achievement. It was recommended that teachers should give enough assignments, mark and give feedback promptly to the students. Also, the Ghana Education Service (GES) in collaboration with Education Ministry must make available adequate logistics (teaching and learning materials) to schools to propel efficient academic works.

Keywords:- Performance, teaching and learning conditions, strategies, assessment, influence.

I. INTRODUCTION

Globally, education is viewed as an important component in developing individuals and nations (Wanbugi, 2014). It is acknowledged that for a given country to develop economically, politically, morally, and socially, education must play a vital role in successful development. As Wanbugi (2014) stated, education is well-thought-out as a critical resource such that it supports a nation to mainly prepare and equip the young ones with the necessary respect, knowledge, skills, and know-how to enable them to involve vigorously in the country's economic growth and development. The growth and development of any nation is

largely hooked on the availability of quality training and education for the individuals in the country (Wanbugi, 2014). The significance of education which is being emphasized internationally has paved a way for countries to put measures in place to ensure that citizens of the country are trained to obtain skills, knowledge, and expertise that are relevant and necessary to help in developing the nation. According to Huze (2017), the manifest function of education for any developing nation is for its citizens to acquire the basic necessary skill of numeracy and literacy.

Clarke (2015) indicated, an enhanced enrolments rate in schools is necessary but not a sufficient condition in reducing poverty in a given country. To Clarke (2015), it is rather the enhanced learning products where knowledge, practical and cognitive skills of students are developed to analyse and solve economic problems in a country. This implies that the complete strength of the educational system relative to the economic growth and development could only be realised if effective education has been provided to the people in the country. In providing quality training, students' knowledge and cognitive skills would fully develop to enhance economic growth and development (Mege, 2019).

However, the conditions of schooling in most developing countries are very poor (Kweku, 2018). According to Kweku (2018), some of the conditions that account for poor learning outcomes in developing countries mostly include insufficient infrastructure, poor salary for teachers, large class sizes, under-resourced teachers, poor methods of teaching, inadequate teaching/learning materials, and overloaded curriculum. Kweku (2018) further opined that a key determining factor of request for basic education has not been lack of schools in a country, however, the truth is that few available schools are not functioning effectively. The educational system in most developing countries according to Action Aid (2010) is in a very bad state because many parents view education as very expensive and therefore fail to educate their children to acquire basic knowledge and practical skills for economic development.

According to Kweku (2018), studies have revealed that a conducive academic environment promotes effective teaching and learning, this improves the performance of students in schools while a poor academic environment leads to abysmal performance. For instance, a tutor who works in a condition of deplorable infrastructure, receives meagre pay, works with ill-fated parent/guardian, truant students, and corrupted supervisors may not be able to work happily (Kweku, 2018). The work environs, especially in village educational institutions, tutors may be reluctant to teach there, and some may have their desire being diminished resulting in the abysmal performance of students. Mege (2019) conducted a study and found that

parent and other stakeholders in education agreed that the enormous savings in schooling has not been yielding expected outcomes considering the poor performance of students. Parki (2017) embarked on research about strategies to improve conditions of teaching and learning in Basic Schools, the study found out that provision of teaching/learning materials, paying teachers well, teachers' regularity/punctuality in school, cordial relationship among teachers, students and administrators are strategies to enhance students' performance. Other strategies are teachers marking students' assignments and giving feedback promptly and comparing schools' performance against the district and national performance. Maduabum, (2018) conducted a study in River State in Nigeria and found out that there is a positive relationship between conditions of teaching and learning, and the student's performance in the West Africa Senior School Certificate Examination (WASSCE). The result was statistically significant.

II. STATEMENT OF THE PROBLEM

Ghana has made tremendous efforts with Development Partners like World Bank, United Nation International Children Emergency Fund (UNICEF) and United Nation Educational Scientific and Cultural Organisation (UNESCO) with intension to increase access and quality education across all levels of basic education in the country (Ghana Education Service, 2018). Despite the remarkable expansions of the educational sector in Ghana, equity, quality, and learning achievements remain a challenge, particularly in rural areas (Kweku, 2018). The issue of poor academic achievement has not exempted Ada East District. For instance, the percentage pass of BECE for public JHSs in the District in 2018 was 30.67 % and this figure dropped to 30.58 % in 2019 and showed an insignificant increase (30.74 %) in the year 2020 performance (Ada East District Education Office, 2022).

Investigations carried out in some parts of Ghana show that academic performance rates in Basic Schools are very poor. Research conducted by Kumar and Ahmad (2019), indicated a dismal performance of BECE (32.5%) in Northern Region of Ghana. Alternative investigation carried out by Frimpong (2011) had equally revealed a dismal BECE result (40.13%) in the Central Region of Ghana.

Having appreciated the strides made by these studies in some parts of Ghana, it appears no empirical study on the influence of teaching /learning conditions on academic achievement has been conducted in Ada East District. Since the academic achievements in the district continuous to be poor, it is necessary to investigate conditions leading to this phenomenon. The current study, therefore, sought to investigate the influence of teaching and learning conditions on academic achievement in Ada East District of the Greater Accra Region.

III. PURPOSE OF THE STUDY

To assess the influence of teaching and learning conditions on academic achievements among public Junior High School teachers and students in Ada East District in the Greater Accra Region. Specifically, the study sought to:

- explore the teaching and learning conditions in Ada East District Junior High Schools.
- examine strategies to enhance academic achievements in Ada East District JHSs.
- determine if there is any difference between public Junior High School male and female students regarding strategies to improve academic achievement.
- find out whether there is any relationship between teaching and learning conditions and academic achievements in public Junior High Schools in Ada East District

IV. METHODOLOGY

A cross-sectional descriptive survey design was adopted for this study. The target population consists of all the thirty-six (36) Junior High Schools (public) in Ada East District while the accessible population was made up of ten (10) Junior High Schools. The participants employed were Junior High School students and teachers in the district. Proportionate and the lottery method of simple random sampling techniques had been adopted for the selection of the participants for the study. Three hundred (300) participants as a sample size made up of 200 students and 100 teachers was used in the study. The teachers' and students' opinion on teaching and learning conditions with 10 items, and strategies to improve academic achievements also with 10 items were measured using an adapted four-point Likert type scale constructed by Makaula (2018). The students' academic achievement scores (secondary data) were collected and assessed against the teaching and learning conditions. The validity of the research instrument was examined by Test and Measurement professional to determine the authenticity of the tool/instrument. Cronbach's Alpha (r) was employed to ascertain the reliability of the instrument, and the reliability coefficient was 0.74. The research instrument was administered personally in two weeks, and there was 100 percent (100%) return rate (all the 300 questionnaires were received). Descriptive and inferential statistics were adopted to analyze the data.

V. RESULTS

A. What are teaching and learning conditions in Ada East District Junior High Schools?

The focus of this question was to seek opinions from teachers and students on conditions of teaching and learning, and their influence on students' academic performance in public Junior High Schools in Ada East District. Table 1 presents the results.

Statements	M = Mean		SD = Standard Deviation	
	Student M	SD	Teacher M	SD
1. Teachers have access to textbooks, handbooks, etc., for teaching	2.61	.95	2.31	.87
2. Teachers have access to technology instructional materials	2.24	.96	1.81	.89
3. Teachers mark students' work and give feedback on time	2.69	.92	2.95	.74
4. Teachers and students have toilet and urina	2.79	1.02	3.21	.80
5. Teachers and students have good drinking water	2.77	1.01	2.90	.92
6. Students are regular and punctual in school	2.60	.95	2.71	.84
7. The school has sufficient access to professional teachers	2.85	.99	3.13	.86
8. The school environment is conducive to effective learning	2.98	.92	2.98	.84
9. Teachers do not come to class to always teach	2.25	1.13	1.96	.98
10. Teachers have sufficient time to meet all student's needs	2.71	.98	2.52	.83
Mean of means	2.65		2.70	

Table 1: Students' and Teachers' Opinions on Teaching and Learning Conditions

The analysis of the results in Table 1 indicates that the majority of the respondents perceived the following items as the teaching and learning conditions existing in public Junior High Schools “The school environment is conducive for effective learning” (Students; $M=2.98, SD=0.92$, Teachers $M=2.98, SD=.84$), “The school has sufficient access to professional teachers”(Students; $M=2.85, SD=.98$, Teachers; $M=3.13, SD=.86$), “ Teachers and students have access to toilet and urinal” (Students; $M=2.79, SD=1.02$, Teachers $M=3.21, SD=.80$), “Teachers and students have access to good drinking water”(Students; $M=2.77, SD=1.01$, Teachers; $M=2.90, SD=.92$), “Teachers have sufficient instructional time to teach” (Students; $M= 2.71, SD=.98$, Teachers; $2.52, SD=.83$). “Teachers mark students' work and give the feedback on time” (Students; $M=2.69, SD=.92$, Teachers; $M=2.95, SD=.74$)

Like student responses, the teachers also disagreed on the following: “Teachers have access to technology instructional materials” (Students; $M=2.24, SD=.96$, Teachers; $M=1.81, SD=.87$). and “Teachers do not come to class to teach at all times” (Students; $M=2.24, SD=.96$, Teachers; $M=1.96, SD=.98$). Taking a critical look at the interpretations, majority of the respondents agreed to the items as the necessary conditions affecting academic achievements in schools.

B. What are the strategies to enhance academic achievements in Ada East District JHSs.?

The intension of this question was to solicit views from the respondents (students and teachers) on strategies to enhance teaching and learning conditions in Ada East District Junior High Schools. Table 2 presents the results.

Achievements

Statements	Student		Teacher	
	M	SD	M	SD
1. Repetition of poor-performing students in class	2.89	.95	2.81	.96
2. District Director monitoring the progress of schools	2.44	1.06	3.11	.84
3. Frequent organisation of inter-school quizzes and debates	2.89	.96	3.15	.90
4. Intensive extra classes especially for JHS final year students	3.00	.96	3.31	.76
5. Informing parents about their wards' progress in school	2.80	1.04	3.19	.79
6. Comparing school to the district and national performance	2.76	.93	2.83	.92
7. Provision of a conducive school environment for learning	2.76	.94	3.22	.79
8. Provision of teaching and learning materials	2.93	1.70	2.99	1.01
9. Teachers giving enough assignments and exercises	3.22	.81	3.35	.63
10. Teachers should mark works on time and give feedback	3.32	.79	3.46	.67
Mean of means	2.90		3.14	

Table 2: Students' and Teachers' Opinion on Strategies to Enhance Academic

The analysis of the results in Table 2 revealed that majority of the respondents agreed to the following items as the strategies to improve academic achievement in public Junior High Schools “Teachers should mark works on time and give feedback” (Students; $M=3.32, SD=.79$, Teachers $M=3.46, SD=.67$), “Teachers giving enough assignment and exercises” (Students; $M=3.22, SD=.81$, Teachers; $M=3.35, SD=.63$), “Intensive extra classes especially for JHS final year students” (Students; $M=3.00, SD=.96$, Teachers $M=3.31, SD=.76$), “Provision of teaching and learning materials”(Students; $M=2.93, SD=1.07$, Teachers; $M=2.99, SD= 1.01$), “Repetition of poor performing students in class” (Students; $M= 2.89, SD=.95$, Teachers; $2.81, SD=.96$).

“Frequent organisation of inter-school quizzes and debates” (Students; $M=2.89, SD=.96$, Teachers; $M=3.15, SD=.90$). “Informing parents about their wards' progress in school” (Students; $M=2.80, SD=1.04$, Teachers; $M=3.19, SD=.79$). “Comparing school to district and national performance” (Students; $M=2.76, SD=.93$, Teachers $M=2.83, SD=.92$). “Provision of conducive school environment for learning” (Students; $M=2.76, SD=.92$, Teachers; $M=3.22, SD=.79$).

However, the students and teachers had different perceptions about the statement “District Directors monitoring the progress of schools” Whiles the student respondents disagreed with the statement ($M=2.44$,

$SD=1.06$), the teacher respondents agreed with the statement ($M=3.11$, $SD=.84$): It could be deduced from the interpretation that majority of the respondents accepted the items as the effective ways of enhancing academic achievements in schools.

H_1 : *There is statistically significant gender differences in relation to strategies to enhance academic achievements in JHSs.*

This hypothesis sought to establish differences in male and female students regarding strategies to enhance academic achievement. Having satisfied with normality of data, adequate sample size and equality of variance, independent-t-test was adopted to analyse the data. Table 3 presents the results.

Gender	N	Mean	SD	T	Df	P
Male	95	29.25	4.35	.592	198	.554
Female	105	28.90	4.19			

Table 3: Gender Difference in Strategies to Enhance Academic Achievement

$p < .05$ significant level

The Independent t-test output revealed that differences were not found in the mean score of strategies to improve academic achievements for male students ($M=29.25$; $SD=4.35$) and female students ($M=28.90$; $SD=4.19$), $t(198) = .592$, $p = .554$. We, therefore, failed to reject the null hypothesis (H_0) which states “there is no significant difference between the male and female students regarding strategies to improve academic achievements in public Junior High Schools” as the sig. value of 0.554 is higher than the alpha value of 0.05 ($p > 0.05$). This indicates that the

opinions of male’ and female’ students on strategies to improve academic achievements were similar.

H_2 : *There is statistically significant relationship between Teaching and Learning Condition and Academic Achievement.*

This hypothesis sought to find out whether teaching and learning condition could influence students’ academic achievement. Linear regression was used to analyse the data. The predictor variable was Teaching/Learning Condition (TLC) and the criterion variable was Academic Achievement (AA). The results were presented in Table 4.

Variables	R	R ²	Adj. R ²	B	S.E	T	F	Sig.	P
TLC*AA	.255	.065	.062	.321	.032	4.544	20.650	.000	.000

Table 4: Linear Regression Results

Note: TLC = Teaching/Learning Condition, AA= Academic Achievement.

Table 4 shows the regression results of the teaching and learning condition and academic achievement. The outcomes showed a positive interaction between the two constructs (TLC and AA). The outcomes of the linear regression depicted a significant positive effect between the teaching/learning condition and academic achievement, [$F(1, 298) = 20.650$, $p < .001$, $R^2 = .065$, $R^2_{adjusted} = .062$]. The regression coefficient was further examined ($\beta = .321$, $t = 4.544$) and it indicated that teaching/learning condition was a significant predictor in the model. The results indicate that better teaching/learning condition could lead to an improvement in academic achievement with variance contribution of 6.5%.

VI. DISCUSSIONS

The preceding shows the data analysis for the current paper. It has been revealed in the findings that most of the respondents agreed that they have a conducive school environment for effective teaching and learning. This finding might have emerged because of safe school climate coupled with professional teachers to handle the students effectively in Junior High Schools. However, one can infer from this discovery that the abysmal academic achievement is not dependent on a conducive school environment but rather students fail to learn to perform well in test. This

result is in line with Kweku (2018) who found in a study that a conducive school environment is not a panacea to pass examination but rather the student’s own preparation for the examination.

Second to conducive school environment, the teachers and students agreed that there are sufficient professional teachers in the schools. This finding might have come out due to the art of professionalism that teachers in the Junior High Schools exhibit in terms of positive attitude towards teaching and learning. Once again, the poor performance of students in BECE is not caused by lack of professional teachers in public Junior High Schools in Ada East District but rather the students are not prepared to learn. This revelation is in harmony with Mege (2019) who asserted that students’ performance in a test or examination is not holistically based on the effectiveness of teachers in schools but rather the students’ own intrinsic motivation towards learning.

The findings further proved that the respondents disagreed to the assertion that teachers have access to technology instructional materials in schools. This finding might have emerged because of lack of computers, projectors, laptop, and the other technological materials for the teaching and learning of Information and

Communication Technology in Junior High Schools. This implies that many public Junior High Schools in Ada East District do not have technology instructional materials and therefore teaching and learning of Information and Communication Technology in Junior High Schools is a problem. This finding conforms with Parki (2017) who conducted a study and came out with the findings that many schools in Kenya do not have technology instructional materials.

A. *Effective strategies to improve Academic Achievements in Public Junior High Schools*

Teachers should mark works on time and give feedback promptly. The participants agreed that one of the approaches to improve academic achievement in schools is that teachers should mark works on time and give feedback. This suggested that when teachers are up to their task effectively, academic achievements would improve in the district. This finding confirms Kweku (2018) who indicated in a study that performance of students largely depends on teachers. It was also revealed in the study that there should be intensive extra classes especially for final year JHS students to prepare effectively for their examinations. This finding implies that extra classes are not being organised effectively for the students to prepare adequately for their final examinations hence abysmal performance. For that matter the public is calling for the organisation of intensive extra classes for the final year students. This revelation is in line with Mege (2019) who asserted that for students to perform excellently in their examinations, extra tuition should be given to augment the normal timetable structured since the allotted time on the timetable is not sufficient for the various subjects.

Furthermore, it was agreed by the respondents that repetition of poor performing students helps to improve academic achievements. This finding might have emerged because of wholesale promotion of students from one class to another. As the poor performing students also registered for the final examination it will have great effect on the general performance of students in BECE. This finding is in harmony with Onyechere (2017) and Wambe (2017). They found out in their study that low performing students who are not capable of raising the image of a school at a point in time should be repeated and prepared very well for high stake examinations. The respondents also agreed that providing teaching/learning resources to schools helps to improve academic achievements. The finding might have come out as a result of inadequate teaching and learning materials in schools which hinders smooth teaching and learning in public schools that has direct impact on the low performance of students. The finding is in line with Kumar and Ahmad (2019). They asserted that students can only perform better in their examinations if teaching and learning materials are adequately available in schools.

B. *Gender Preference of Strategies to improve Academic Achievements*

One might have thought that there should be differences in the views of male and female students concerning strategies to improve academic achievements. However, the inquiry may be “is the difference significant or not?”. The current work discovered no statistically significant differences among males and females of Junior High Schools with regards to strategies to improve academic achievements. From these results, it could be seen that male and females adopt similar strategies in attempt to improve their academic performance. The finding of this research disapproved that of Ochuku (2019) who indicated that there was a statistically significant difference among males and females in Junior High Schools with regards to solutions to minimise abysmal academic performance.

C. *Relationship between Academic Achievement and Condition of Teaching and Learning*

In a quest to find out whether there is relationship between academic achievement, and teaching and learning condition. It was found out that teaching and learning condition has significant positive effect on academic achievements. This finding corroborates with Maduabum (2016) who found out in a study that conducive school environment has positive high relationship with students' performance in schools. This implies that there would be improvement in students' academic achievements in schools as a result of better conditions of teaching and learning.

VII. CONCLUSIONS AND RECOMMENDATIONS

In conclusion based on the discoveries of this paper, teachers' activeness in giving out enough assignments and providing feedback promptly to students helps to improve academic achievements. It was also concluded that conducive teaching and learning activities couple with safe school environment are the necessary conditions to improve academic achievements. So, effective plans must be adopted to improve students' academic achievements. The following recommendations were made based on the findings and conclusions:

Teachers must give enough assignments, mark and give feedback promptly, school authorities should intensify extra classes especially for the final year students for better result in Basic Education Certificate Examination. Also, students should be sensitised and encouraged to have time for their books to perform well in their examinations, additionally, the Ghana Education Service in collaboration with Education Ministry must make available adequate teaching/learning materials in schools for efficient teaching and learning to take place..

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