

Effect of Economics Teachers Pedagogical Strategies on Economics Students' Academic Achievement

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Abstract : *This study sought to find out the effect of Economics teachers' pedagogical strategies on academic achievement of Economics students in selected Senior High Schools in the Central Region of Ghana. The study employed the descriptive survey design and used simple random technique to sample 300 Economics students from five Senior High Schools in the Central Region of Ghana. The instruments used for the study were structured questionnaire and Test of Economics Understanding (TEU). The data were analyzed using Simple Linear regression and independent sample t-test. The results of the study revealed that Economics teachers' active involvement of students, and teaching and learning resources had significant influence on Economics students' academic achievement. Also, there was no statistically significant difference in the SHS Economics students' academic achievement based on gender. It was recommended that Economics teachers should continue to involve students in their lessons, and use teaching and learning resources in the teaching and learning process. Again, equal attention should be given to both male and female Economics students in the classroom instructional process.*

Keywords: *Academic Achievement, Economics, Economics Students, Pedagogical Strategies.*

I. INTRODUCTION

The aim of the teaching and learning process at any level of education is bring out a significant change in the student (Tebabal & Kahssay, 2011). Ayeni (2011) asserted that teaching is an incessant process that encompasses the use of appropriated methods in order to bring desirable changes in learners. In order to bring these desirable changes in students, teachers must employ teaching methods that fit best for the content of the subject (Adunola, 2011). The purpose of teaching is to ensure that students can acquire a body of knowledge and information so that they can apply those skills. It is the responsibility of every educator to not only know their pedagogical teaching strategies but also to be aware of it influence on students learning and academic achievement.

Abdu-Raheem (2016) asserted that an essential and significant tool such as instructional materials used by teachers in the teaching and learning of school subjects can promote teacher's efficiency and improve students' performance. This assertion implies that instructional materials which are part of the pedagogical strategies utilized by the teacher can influence the academic performance of students.

The ineffectiveness of the school system and poor performance of students in schools can be attributed to the non-availability and inadequacy of instructional materials (Abdu-Raheem, 2011). The contention is that availability of instructional materials in the right quantity improves pupils' learning achievement. However, adequacy of instructional materials alone may not guarantee learners' achievement. Students need to be involved in the instructional process. Hence there is the need to find out the effect of instructional materials and students' involvement on academic achievement.

Student engagement represents the time and effort students devote to activities that are empirically linked to desired outcomes of the instructional process and what teachers do to induce students to participate in these activities (Kuh, 2009). Kuh (2009) opined further that student engagement is measured by three antecedents: time on task, quality of effort and involvement. As student involvement is a dimension of student engagement, these two terms have been used interchangeably in the literature. However, they are not exactly the same. Student involvement is the amount of physical and psychological energy devoted to academic experience and student learning is proportional to the student involvement (Austin, 1999).

Educational researchers have conducted studies on the influence of gender in students' academic achievement; yet no consistent result has emerged. For instance, Mbaba (2006) opined that gender had significant influence on achievement, while Udofia (2009) stated otherwise.

II. STATEMENT OF THE PROBLEM

Several research (Sumra & Rajani, 2006; Haki, 2007; Makombe *et al.*, 2010) had been conducted on the poor performance of students in secondary schools but it seems most of them did not link this situation to teaching and learning resources and students' active involvement in a lesson.

Tety (2016) conducted a study on the role of instructional materials in academic performance in community secondary schools in Rombo District. The study used a quantitative method approach and survey design in collecting data from 100 students. The findings of the study revealed that instructional materials are key to students' performance. However, the study failed to indicate whether instructional materials had positive or negative influence on students' performance and also, the study employed small sample size.

Also, Akpan and Okoli (2017) conducted a study on the effect of the use of instructional materials on academic performance of pupils. The findings of the study indicated that the pupils who were taught with instructional materials performed better than those who were not. Yet the study did not focus on the effect of the pupils' involvement in the lesson on their academic performance.

Ivanova and Moretti (2018) conducted a study on the impact of depth and breadth of student involvement on academic achievement. The findings of their study confirmed the role of student involvement on academic achievement. In spite of all studies, it remains unclear to what extent do involvement relates positively to academic achievement.

It appears no study have been conducted to find out the effect of teachers' pedagogical strategies on students' academic achievement hence, it has necessitated the conduct of this study to ascertain the effect of Economics teachers' pedagogical strategies on Economics students' academic achievement.

III. PURPOSE OF THE STUDY

The purpose of the study was to examine the effect of Economics teachers' pedagogical strategies on academic achievement of Economics students. In specific terms, the study is intended to:

1. Determine how teachers' active involvement of students affects students' academic achievement.
2. Ascertain how the use of teaching and learning resources affect students' academic achievement.
3. Find out the difference in academic achievement of students based on gender.

IV. RESEARCH HYPOTHESIS

The following hypothesis guided the study;

1. H_0 : Teachers' active involvement of students has no significant influence on Economics students' academic achievement.

H_1 : Teachers' active involvement of students has significant influence on Economics students' academic achievement.

2. H_0 : Teaching and learning resources has no significant influence on Economics students' academic achievement.

H_1 : Teaching and learning resources has significant influence on Economics students' academic achievement.

3. H_0 : there is no statistically significant difference in academic achievement of students based on gender.

H_1 : there is statistically significant difference in academic achievement of students based on gender.

V. REVIEW OF RELATED LITERATURE

The pedagogical strategies of the teacher which comprised the use of teaching and learning materials and active students' involvement in a lesson have a certain level of influence on students' academic achievement. A study conducted by Muema, Mulwa and Mailu (2018) on the relationship between teaching method and students' performance in Mathematics in public secondary schools in Kenya. The study adopted

experimental research design. A total of 155 respondents were selected for the study. The findings of the study showed that there was a positive correlation between teaching methods and students' achievement in Mathematics. Similarly, a meta-analytic review on the effect of teaching methods on students' academic performance in Chemistry in Nigeria by Okwuduba and Okigbo (2018), the results of the study revealed that teaching methods had influence on students' academic performance in Chemistry.

Also, Akpan, Usoro, Akpan and Ekpo (2010) conducted an experimental study on the effects of team teaching on students' performance in Introductory technology in secondary schools in Akwa Ibom State, Nigeria. It was found that students that were taught through team teaching approach performed significantly better than students taught by a single instructor.

Again, Ansari and Khurshid (2012) conducted a study on the effects of innovative teaching strategies on students' performance. An experimental research design was employed to select a sample of 50 students for the study. The findings of the study indicated that the students who were instructed using modern teaching techniques achieved significantly higher scores on science test than did the students whose instructions were done on traditional or conventional method.

Adeogun (2001) opined that there is a strong positive relationship between instructional resources and academic performance. He indicated that schools that possess more instructional resources performed better than schools that have less instructional resources. Additionally, Tety (2016) conducted a study on the role of instructional materials in academic performance in community secondary schools in Rombo District. The findings of the study revealed that instructional materials are key to students' performance. Similarly, Okendu (2012) posited that instructional resources have significant bearing on students' academic performance. In support of earlier views, Onasanya and Omosewo (2011) affirmed that instructional materials have positive effects on students' academic performance.

Moreover, Adalikwu and Iorkpilgh (2013) investigated the influence of instructional materials on students' academic performance in senior secondary schools in Cross River State. The results of the study revealed that students taught with instructional materials performed significantly better than those taught without instructional materials.

Students who are active participants tends to have better academic achievement (Theberge, 1994). This statement was supported by Astin (1999) who asserted that students who were actively involved in the classroom discussions showed higher satisfaction in the learning process. Active participation of students with discussions in the classroom is important for the purpose of achieving effective learning and plays an important role in the success of education and personal development of students in the future (Tatar, 2005). According to Siti (2010), students learn how to think critically and there is enhancement in their intellectual development if they are actively involved in the instructional process. Ivanova and Moretti (2018) conducted a study on the impact of depth and breadth of student involvement on academic achievement. The findings of their study confirmed the role of student involvement on academic achievement. Again, breadth and depth of involvement are positively related to academic achievement, but the depth of involvement has a larger explanatory power. Moreover, in assessing the impact of active learning on students' academic performance, Aji and Khan (2019) asserted that the performance of students who took the courses with the active learning improved.

The effect of gender on students' academic achievement has been a major concern to educational researchers for long, yet no consistent result has evolved. Mbaba (2006) and Ugonabo (2009) reported that gender had significant influence on achievement. On the contrary, Okeke (1999) and Udofia (2009) indicated that gender of students had no significant effect on students' academic achievement. The situation therefore sustains the curiosity of researchers and thus makes it necessary to continue investigating the influence of gender and pedagogical strategies of teachers on students' academic achievement.

VI. RESEARCH METHODS

Research Design

A descriptive survey research design was used. Upadhyya and Singh (2008) posited that descriptive survey research design allows for the collection of quantifiable data from a sample to explain a particular phenomenon. This design fits into the overall purpose of the study which was to collect data to describe the effect of economics teachers' pedagogical strategies on the academic achievement of economics students.

Population

The population of the study comprised all SHS Economics students in the Central Region of Ghana. The target population of the study was Economics students in Senior High Schools in the Cape Coast Metropolis. However, the accessible population was SHS 2 Economics students from five selected Senior High Schools in the Cape Coast Metropolis. The Economics students were all SHS 2 Economics students selected irrespective of their gender and programme of study.

Sample and Sampling Procedure

The sample size was made up of 300 SHS 2 Economics students in the Cape Coast Metropolis. The simple random technique was used to select 300 students for the study. This technique was to enable the researchers collate views from the students without bias in the selection process.

Research Instrument

The instruments used for the study were a questionnaire and a Test of Economics Understanding (TEU by Anti Partey & Yidana, 2018) was adopted for the study. All the items on the questionnaire were answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. To enable the researchers to measure academic achievement of students in Economics, a standardized objective test was administered to the students. The test comprised 50 multiple choice items with 25 each from Microeconomics and Macroeconomics.

Procedure for Data Collection

Data was collected after an arrangement was made with the various Headmasters of the selected schools. The questionnaire and TEU were administered to form two (2) Economics students of the selected SHS in the Cape Coast Metropolis. The questionnaire was administered by trained research assistants. The research assistants assured the respondents of complete confidentiality, distributed the questionnaire to the respondents, guided them through how to respond to the items and collected them within 10 to 40 minutes. There was 100% return rate.

Data Analysis Procedure

Data collected were coded and refined with the help of SPSS (version 23) and was analysed using inferential statistics. The research hypothesis one and two were analysed using simple linear regression (with the help of Stata 14). The third research hypothesis was analyzed using independent sample t-test.

VII. RESULTS AND DISCUSSIONS

Research Hypothesis One

H_0 : Teachers' active involvement of students has no significant influence on Economics students' academic achievement.

H_1 : Teachers' active involvement of students has significant influence on Economics students' academic achievement.

Table 1 presents a summary of the simple linear regression results in terms of the hypothesis that Teachers' active involvement of students has no significant influence on Economics students' academic achievement.

Table 1: Linear Regression Results for Effect of Teachers' active involvement of students on Economics students' academic achievement

. regress STUDENTPERFORMANCE STUDENTINVOLVEMENTINTEACHINGECON

Source	SS	df	MS	Number of obs	=	300
				F(1, 298)	=	4.49
Model	92.4425438	1	92.4425438	Prob > F	=	0.0349
Residual	6136.94412	298	20.5937722	R-squared	=	0.0148
				Adj R-squared	=	0.0115
Total	6229.38667	299	20.8340691	Root MSE	=	4.538

STUDENTPERFORMANCE	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
STUDENTINVOLVEMENTINTEACHINGECON	.0909999	.042951	2.12	0.035	.0064743 .1755255
_cons	10.62903	1.346198	7.90	0.000	7.979767 13.27829

*Significance level .05

From Stata 14 output, the estimated regression equation is given as;

$$Y = 10.629 + 0.091X$$

Where Y = students' academic achievement in Economics

X = student involvement in teaching Economics

Additionally, as shown in the output from Stata 14, it is clear that a Pseudo R square of 1.48% indicates that Economics teachers' active involvement of students explains 1.48% of the variation in the Economics students' academic achievement. The results indicate that there is a positive relationship between Economics teachers' active involvement of students, and Economics students' academic achievement. The regression results indicate that 1% increase in Economics teachers' active involvement of students will lead 0.091 increase in Economics students' academic achievement. Again, the result is significant at 5% alpha level, implying that Economics teachers' active involvement of students has significant influence on Economics students' academic achievement.

Research Hypothesis Two

H₀ : Teaching and learning resources has no significant influence on Economics students' academic achievement.

H₁: Teaching and learning resources has significant influence on Economics students' academic achievement.

Table 2 presents a summary of the simple linear regression results in terms of the hypothesis that Teaching and learning resources has no significant influence on Economics students' academic achievement.

Table 2: Linear Regression Results for Effect of Teaching and learning resources on Economics students' academic achievement

. regress STUDENTPERFORMANCE TEACHINGANDLEARNINGRESOURCES

Source	SS	df	MS	Number of obs	=	300
				F(1, 298)	=	12.23
Model	245.649095	1	245.649095	Prob > F	=	0.0005
Residual	5983.73757	298	20.0796563	R-squared	=	0.0394
				Adj R-squared	=	0.0362
Total	6229.38667	299	20.8340691	Root MSE	=	4.481

STUDENTPERFORMANCE	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
TEACHINGANDLEARNINGRESOURCES	.2199081	.0628727	3.50	0.001	.0961775	.3436388
_cons	9.722681	1.090129	8.92	0.000	7.577354	11.86801

*Significance level .05

The output from Stata 14 can be used to estimate the regression equation, the equation is given as;

$$Y = 9.723 + 0.220X$$

Where Y = students' academic achievement in Economics

X = teaching and learning resources

Again, as shown in the output from Stata 14, it is clear that a Pseudo R square of 3.94% indicates that the use teaching and learning resources explains 3.94% of the variation in the Economics students' academic achievement. The results indicate that there is a positive relationship between the use of teaching and learning resources, and Economics students' academic achievement. The regression results indicate that 1% increase in the use of teaching and learning resources will lead 0.22 increases in Economics students' academic achievement. Again, the result is significant at 5% alpha level, implying that teaching and learning resources has significant influence on Economics students' academic achievement.

Research Hypothesis Three

H₀: there is no statistically significant difference in academic achievement of students based on gender.

H₁: there is statistically significant difference in academic achievement of students based on gender.

Table 3 presents a summary of the simple linear regression results in terms of the hypothesis that there is no significant difference in academic achievement of Economics students based on gender.

Table 3: Difference in Economics students' Academic Achievement Based on Gender

	Gender	N	M	SD	T	Df	ρ
Academic Achievement	Male	148	13.71	4.77	1.085	298	.184
	Female	152	13.14	4.34			

Source: Field Survey, 2020.

*Significance level .05

From Table 3, it seems that there is difference in terms of the mean values for the male and female students with the mean of the males exceeding that of the females by .57. However, to test whether the difference in the mean values was statistically significant, an independent t-test was used. First, the Levene's Test for Equality of variances indicated that the variances for the two groups were equal (F = 1.770, .184 > .05), and therefore a test for equal variances was used. The mean value of male Economics students' academic

achievement ($M = 13.71$, $SD = 4.77$) is not significantly higher ($t = 1.085$, $df = 298$, $.184 > .05$) than that of the female Economics students ($M = 13.14$, $SD = 4.34$). Therefore, the null hypothesis is sustained.

Discussion of Results

The first research hypothesis of this study was meant to find out the effect of teachers' active involvement of students on students' academic achievement. The findings of the study revealed that Economics teachers' active involvement of students has significant influence on Economics students' academic achievement. This finding is in tandem with that of Ivanova and Moretti (2018) who asserted that involvement of students is positively related to academic achievement of students. The findings of the study suggest that students' academic achievement is greatly affected by how teachers actively involve them in the teaching and learning process.

Research hypothesis two sought to find out the effect of teaching and learning resources on Economics students' academic achievement. The results of the study indicated that there is a positive relationship between teaching and learning resources, and Economics students' academic achievement. It was found that teaching and learning resources has significant influence on Economics students' academic achievement. This finding validates that of Adeogun (2001) who opined that there is a strong positive relationship between instructional resources and academic performance. Similarly, Tety (2016) stated that instructional materials are key to students' performance. The results of the current study appear to suggest that the use of teaching and learning resources by teachers had a positive effect on the academic achievement of students.

The last hypothesis was meant to ascertain whether there is statistically significant difference in academic achievement of students based on gender. The results of the study showed that there is no statistically significant difference in academic achievement of students based on gender. Both genders have the same academic achievement. The findings discovered affirms that of Okeke (1999) and Udofia (2009) who indicated that gender of students had no significant effect on students' academic achievement. However, the finding is contradictory to that of Mbaba (2006) and Ugonabo (2009) who found that gender had significant influence on academic achievement. The findings of the study that both male and female economics students have the same academic achievement may be as result of the context of the study and also the students involved in the study.

VIII. CONCLUSION

The study was meant to find out the effect of Economics teachers' pedagogical strategies on academic achievement of Economics students in selected Senior High Schools in the Central Region of Ghana. The findings of the study indicated that Economics teachers' active involvement of students has significant influence on Economics students' academic achievement. Also, it was revealed that teaching and learning resources has significant influence on Economics students' academic achievement. Finally, the study showed that there was no statistically significant difference in academic achievement of Economics students based on gender. It is recommended that Economics teachers should ensure active participation or involvement of students in their lessons, and use teaching and learning resources in the teaching and learning process. Again, equal attention should be given to both male and female Economics students in the classroom instructional process.

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