# Influence of Class Attendance on Academic Performance of Community Senior High School Students

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#### Abstract

Academic performance is one key measure of students' success in schools and is of much concern in Ghana just as in other sub-Sahara African countries. It is influenced by a plethora of variables but not many studies have examined the influence of class attendance on learners learning success. This article examined class attendance and its correlation with academic performance of students in community senior high schools. A stratified random sample of 354 grades 11 and 12 students from three community senior high schools had their class attendance scores and end of term examination scores used. Pearson Product Moment correlation and independent sample t-Test were the statistical tools used. The study found that there was a positive correlation between students' class attendance and their academic performance. There was a statistically significant difference between academic performance of students who had high class attendance and those who had low class attendance. Much focus should be placed on continuous assessment to motivate students' attend class regularly.

**Keywords:** academic performance; class attendance policy; continuous assessment; educational planning; Human capital

#### **INTRODUCTION**

Human capital formation begins at the basic school level of education when children are provided with primary and secondary education. States therefore have to finance this level of education if no child will be left out of school in less developed countries as poor families are not able to afford the cost of education. Even in developed countries this level of education is either state funded or is highly subsidized. It is, therefore, apparent that for less developed countries to attain high economic growth and development, governments need to fund primary and secondary education Breton (2012). Nations are investing heavily in primary and secondary education as this level of education is regarded as basic human right that needed to be guaranteed to every child by nations all over the world Abagi (2000). Primary and secondary school education are also regarded to have a positive relationship with economic and social development in many countries UNESCO (2000). This is when looking at education from the perspective of social demand approach of educational planning where education is seen as a service for consumption and needed to be provided to as many people as demand for it. "Education is a leading determinant of economic growth, employment, and earnings. Ignoring the economic dimension of education will endanger the prosperity of with widespread repercussions for poverty, social exclusion, future generations, and

sustainability of social security systems" Woessman (2015). These reasons have accounted for vigorous and sustained governments' effort in many countries the world over to have every child in school at least up to secondary education level. This is expressed to ensure inclusive, equitable, quality education and promote life-long learning opportunities for all in the sustainable development goal four.

Many variables both institutional and non-institutional that affect equitable, quality and inclusive education have been investigated to optimize outputs from education. Countries continue to allocate substantial budget to education sector hoping to guarantee the development of their economies through the provision of quality education to their citizens. This can however be achieved only when learners avail themselves to be taught in their various institutions of learning regularly according to schedules. Output of the learning process is then measured in terms of learners' academic performance. Smith (1998) stressed that attendance at school is a key necessity to stakeholders in education and further noted that "The success of the school in carrying out its primary charge of educating and socializing students is contingent on students attending school regularly" (1998).

Studies by Wheat (1998) as well as Applegate (2003) suggest that in spite of social and economic variables, schools that have high school attendance figures record higher academic performance. Redick and Nicoll (1990) noted that learners who attend school always record better grades than learners who absent themselves from school often. Fleming and Zafirau (1982) also claim that more than three-fourths of school failure rates were caused by students' school non attendance. Kearney and Graczyk (2014) observed that regular attendance at school is necessary for the students' academic performance, language and social skills development. Learners school regularly presence helps them to acquire work related skills for future work lives in the forms of team work, creativity and perseverance in achieving personal and organizational goals. Thornton, Darmody and McCoy (2013) posited that non-attendance does affect other non-academic processes such as pre-lesson preparations and classroom arrangement of teachers and also demoralize other students who are present in class.

Jones (2006) observed that there was a significant relationship between students' academic performance in Mathematics as well as English and school attendance. Jones (2006) argued that there are other indicators which are in the classroom environment that influence students learning outcomes. The author suggested that more resources should be provided to schools especially those with large numbers of students. Regular school attendance was noted to be a significant variable in school success and also a positive correlation between good attendance and learners' performance. Rothman (2001), DeKalb (1999).

Review articles show that measures accounting for low attendance were classified into four thematic areas. Family measures which are one thematic area include absence of direction and supervision from guardians, home violence, poverty, drug and alcohol misuse as well as lack of knowledge about attendance regulations in schools U.S. Department of Justice (2001) School measures are made up of school size, teachers' attitudes, students' support systems and absence of management adopting dynamic ways to manage diverse cultural needs of students U.S. Department of Justice (2001). Economic measures are seen to be children who do not attend school regularly because of they have single parents, high mobility rates, guardians who do different works, expensive transportation fares and childcare U.S. Department of Justice (2001). Student measures include drug and alcohol misuse, not

understanding school attendance regulations, not being socially competent, mental health challenges, and week physical health U.S. Department of Justice (2001), Rothman (2001). Davidson (2000), Applegate (2003). Persistent non attendance was found to have high correlation with some negative behaviour like drug abuse, violence, suicide, getting involved in sexuality at early age, early pregnancy and finally dropping out of school Thornton, Darmody & McCoy (2013) Kearney & Graczyk (2014).

Low school attendance is also seen as a contributor to low academic performance as well as diminished esteem and life satisfaction. Students who do not attend school regularly find it difficult to form a good foundation with respect to discipline and sense of responsibility which leads to challenges of indiscipline; attitude and habit in future work life Pehlivan (2006). Moreover, students who do not attend school regularly are more likely to encounter mental challenges in the form depression and may also demonstrate behavioural patterns involving violence, teenage pregnancy, dropping out of school as well as forming damaging habits resulting in unsuccessful academic endeavour Lannegrand-Willems, Cosnefroy, & Lecigne (2012) Jeter (2011) Gottfried (2009). Demir and Karabeyoglu (2015) found that students commitment to their school and family monitoring and supervision improve school attendance. Studies have found that students' class attendance is an important predictor of learners learning success: students who attend classes more often scored higher grades Kirby & McElroy (2003), Moore et al. (2003), Purcell (2007). However, study by Eisen et al. (2015) found no statistically significant relationship between class attendance and learners academic performance after adjusting for controlled variables that included gender and age.

Ghana has extended free compulsory universal basic education to senior high school level through the Pre-Tertiary Education Act (2019). The Pre-Tertiary Education Act (2019) states that "basic education shall consist of (a) two years of Kindergarten; (b) six years of Primary Education; (c) three years of Junior High School; and (d) three years of secondary level education". However students are still found participating in commercial activities during school hours in the municipality. Community senior high school students' performance in West Africa Secondary School Certificate Examination (WASSCE) has not met public expectations of stakeholders in the municipality. This calls for studies to establish issues that account for the low performance so that policy reviews can be carried out to address such variables that hitherto may have received little attention in respect of students learning success. Few studies have considered the influence of class attendance on academic performance of students. This study thus examined the phenomenon.

**Research Question**: What correlation exists between class attendance and academic performance of grades 11 and 12 students of community senior high schools?

#### Null Hypothesis

 $H_{o1}$ : There is no statistically significant difference between class attendance of male and female students of community senior high schools.

 $H_{o2}$ : There is no statistically significant difference between academic performance of male and female students of community senior high schools.

 $H_{o\ 3}$ : There is no statistically significant difference between academic performance of community senior high school students who had high class attendance and those who had low class attendance.

## MATERIAL AND METHODS

The study involved two variables which were students' school class attendance and students' academic performance. The independent and dependent variables generated continuous data and were examined through correlation research design. Pearson product moment correlation coefficient and t-Test were used to analyse the data. Participants (n=354) grades 11 and 12 students randomly sample through the stratified sampling technique from three community senior high schools in the Hohoe municipality of Ghana.

# **Data Collection Procedure**

Data were collected from students' class attendance registers and their corresponding end of term examination scores sheets in Economics using a documents analysis guide. Class attendance and end of term examination scores were gathered on (n = 354) grades 11 and 12 economics students who were randomly sampled from three community senior high schools. The statistics employed in carrying out data analysis were Pearson Product Moment Correlation and t-Test. The unit of analysis in this study was the student. The randomization employed in the study allowed for a sound generalization to be made about students' class attendance and its correlation with academic performance.

# **RESULTS AND DISCUSSION**

This paper examined whether there was a relationship between students' class attendance and their academic performance and determined the influence of students' class attendance on their academic performance in community senior schools.

| Gender | Number | Percentage |
|--------|--------|------------|
| Male   | 214    | 60.45      |
| Female | 140    | 39.55      |
| Total  | 354    | 100        |

#### Table 1: Gender Distribution of Respondents

Source: (Field data, 2019)

Table 1 shows that 60.45% of the respondents were males while making 39.55% of the respondents were females. This is an indication that there were more males than females pursuing Economics in the three community senior high schools studied.

Research Question: What correlation exists between class attendance and academic performance of grades 11 and 12 students of community senior high schools?

The answer to this research question was arrived at through the calculation of mean class attendance score for the term and corresponding mean academic performance score for the term for each economics student. Mean class attendance scores and mean academic performance scores were then correlated. Relationship between the two variables was determined using the Pearson Product Moment Correlation Coefficient. Table 2 illustrates the relationship between the two variables.

# Table 2: Correlation between Students' Class Attendance and their Academic Performance

| N   | R    | $\mathbb{R}^2$ | P-value | Remark      |
|-----|------|----------------|---------|-------------|
| 354 | .712 | .507           | .000    | Significant |

Note: P < .05; Source: (Field data, 2019)

The Pearson's Product Moment Correlation was performed to examine the relationship between students' class attendance and academic performance. Academic performance had strong positive relationship with class attendance r (352) = .712, P < .001. This indicates that students' class attendance explained R<sup>2</sup>.507 (50.7%) of variability in students' academic performance. This implies that when class attendance scores moved in a higher direction, academic performance scores also move in a higher direction and when class attendance scores also move in a lower direction.

This result supports the findings of Railsback (2004) who maintained that it is well known and widely accepted that having children attending school and class on a regular basis was a key component of their academic success. This further supports Tymms (2006) who noted that class attendance was one of the most important variables associated with progress toward literacy for children in British schools. Dekalb (1999) also observed that low attendance affects student performance in a negative way. The finding is also in line with Levine's (1992) results which showed a positive correlation between students' school attendance and students' academic performance. The result further supports Redick & Nicoll, (1990) in their finding that students who attend school regularly had higher grades than those students with high absences to class.

Again the finding in this study confirm the findings of Berenson, Carter, and Norwoods [30] who attempted to control for attendance and put in place a 'compulsory attendance policy' that combined reward and punishment protocols in which college students in America were allowed three unexcused absences, with additional unexcused absences possibly resulting in withdrawal from the course. Eventually, students with no more than one absence between exam dates were awarded five points for that exam score. Consequently, there was improvement in attendance rates, and the study showed that increased attendance rates correlates with increased achievement. From this finding, one can confidently say that students' class attendance correlates strongly with their academic performance. (1992). Thus, a higher score in attendance correlates with a higher score in performance or a lower score in attendance correlates with a lower score in performance. There study therefore has enough evidence to conclude that students who record high class attendance scores are more likely to record high academic achievement than students who record low class attendance scores in school.

 $H_{o\ 1}$ : There is no statistically significant difference between school attendance of male and female students of senior high schools.

Hypothesis one sought to establish whether there was a statistically significant difference between school attendance of male and female students in table 3.

 Table 3: Result of t-Test Mean Difference between Class Attendance of Male and Female Students

| Group | Number    | Mean        | Sd      | Df  | Т     | Sig (Two tailed) |
|-------|-----------|-------------|---------|-----|-------|------------------|
| MSCA  | 214       | 49.4346     | 7.23339 | 352 | 1.128 | .260             |
| FSCA  | 140       | 50.3357     | 7.52608 |     |       |                  |
| p<05: | Source: ( | Field Data. | 2019)   |     |       |                  |

MSCA=Male Students Class Attendance, FSCA=Female Students Class Attendance

This hypothesis sought to establish whether there was a difference between class attendance of male students and that of female students as well as find out if the differences were statistically significant. Group 1 was male students represented by MSCA while group 2 was female students represented by FSCA. The independent sample t-Test was performed to test this hypothesis. The output variable was normally distributed and assumption of equal variances met base on the test result. The male students class attendance (M = 49.43, SD = 7.23) was not statistically different than the female students class attendance (M = 50.34, SD = 7.53), condition t (352) = 1.23, p < .260 (two-tailed) at an alpha level of .05. The result showed that the p < .26 was greater than t critical value of 1.984. There was a small effect size of .13. The study therefore failed to reject the null hypothesis which claimed that there was no statistically significant difference between class attendance of the male and female students. This finding showed that class attendance of both male and female students of community senior high schools was statistically not different but same. This implies any observe difference in the attendance of male and female students is due chance and could be either way. Any policy intervention to improve class attendance should therefore target male and female students equally.

 $H_{o\ 2}$ : There is no statistically significant difference between academic performance of male and female students of senior high schools.

Hypothesis two sought to establish whether there was a statistically significant difference between the academic performance of male and female students in economics as shown in table 4.

 Table 4: Result of t-Test Mean Difference between Academic Performance of Male and Female Students

| Group     | Ν      | Mean      | Sd.     | Df  | Т     | Sig(Two-tailed) |
|-----------|--------|-----------|---------|-----|-------|-----------------|
| APM       | 214    | 65.5      | 9.10180 | 352 | 4.926 | .001            |
| APF       | 140    | 60.5357   | 9.52498 |     |       |                 |
| × 0.7 . 0 | (E' 11 | 1 ( 0010) |         |     |       |                 |

p<.05; Source: (Field data, 2019)

APMS=Academic Performance of Male Students APFS=Academic Performance of Female Students.

This hypothesis was tested to determine if male students differ significantly than female students in economics academic performance. APMS represents the Academic Performance of Male Students group while APFS represents the Academic Performance of Female Students group. The independent sample t-Test was carried out to determine whether the two groups differ significantly. The output variable was normally distributed and the assumption of equal variances satisfied base on the test result. The male students group (M = 65.5, SD = 9.1) was statistically different than the female students group (M = 60.54, SD = 9.53), condition t (352) = 4.926, p < .001 (two-tailed) at an alpha level of .05. The result shows that the p < .001 was less than t critical value of 1.984. There was a medium effect size of .52. The null hypothesis which stated that there was no statistically significant difference between academic performance of the male students and female students groups of students was rejected and the alternate hypothesis adopted. This was an indication that male students' academic performances in economics differ significantly than female students. The males performed significantly higher than the females. This finding implies any intervention to improve learning outcomes in economics in community senior high schools should be design to give special attention to females so that their performance may improve to the level of their male counterparts.

This finding disagrees with Cole et al. (2016) who in a research carried out in Australia, among co-education students, found no gender differences in performance in mathematics class but did report increased levels of confidence in learning and using mathematics among girls. The finding was also contrary to Flynn (1998) who examined two tests administered by the Israeli Defence Forces which qualify as IQ tests -one of them being an adaptation of Progressive Matrices and explained that there was no sex difference in general intelligence. The researcher proposed that general intelligence should be defined as reasoning ability and that the best measure of this was the Progressive Matrices.

The finding in this study however, support Akpor and Egbule (2020) who carried out a study among secondary school students and found that males scored higher in three Physics papers than females with the scores widening from one paper to the other in Scholastic Achievement Test (SAT). Akpor and Egbule (2020) explained that the test scores widened in favour of males as the test papers became relatively more difficult. Cortright et al. (2011) found that the influence of regular class attendance on academic performance was more important for female students than male students: female students scoring above-average grades had higher class attendance scores than female students who scored grades below class average but these differences were not observed among male students. The varied findings reported by different authors about differences in performance of male and female students means the phenomenon needs to be studied further and in a wider context.

 $H_{o\ 3}$ : There is no statistically significant difference between academic performance of students who had high class attendance scores and those who had low class attendance scores.

This hypothesis sought to determine if there was a statistically significant difference between academic performance of students who had high class attendance scores and those who had low class attendance scores as shown in table 5.

| Table 5: R | esults of | t-Test on | Mean    | difference | in Academic | Performance | of Low | Class |
|------------|-----------|-----------|---------|------------|-------------|-------------|--------|-------|
| Attendance | Students  | and High  | Class . | Attendance | Score Stude | nts         |        |       |

|          |        | <u> </u> |         |     |       |                  |
|----------|--------|----------|---------|-----|-------|------------------|
| Group    | Number | Mean     | Sd      | Df  | Т     | Sig (Two tailed) |
| LCASS    | 177    | 62.0226  | 8.24547 | 352 | 3.428 | .001             |
| HCASS    | 177    | 65.0565  | 8.40773 |     |       |                  |
| <u> </u> | ä      |          | 0.1.0.  |     |       |                  |

p<.05; Source: (Field data, 2019)

LCASS = Low Class Attendance Score Students (Group 1)

HCASS = High Class Attendance Score Students (Group 2)

This hypothesis sought to establish if students who attended class regularly had a statistically significant performance different than students who did not attend class regularly and thus absented themselves from class often. The independent sample t-Test was performed to test this hypothesis. The students who were not regular to class were group 1 while students who attended class regularly were group 2. The output variable was normally distributed and assumption of equal variances met base on the test result. The regular class attendance group (M = 66.8, SD = 8.41) was statistically higher than the low class attendance (M =62.02, SD = 8.25), condition t (352) = 3.43, p < .001 (two-tailed) at an alpha level of .05. The result showed that the p < .001 was less than t critical value of 1.984 and a small effect size of .36. The null hypothesis which claimed that there was no statistically significant difference between academic performances of the two students groups was rejected and the alternate

hypothesis adopted. This finding showed that there was statistically significant difference in academic performance of senior high school students who attended class regularly and those who did not attend class regularly but absent themselves from class often.

This finding strengthens the results in table 3 of this article which found a high positive correlation between class attendance and academic performance. The finding support Massingham and Herrington (2006) who observed that "it is clear that attendance has an impact on performance. Students who attended lectures and tutorials regularly had a better chance of success on all assessment tasks in particular the final exam. Successful students attended lectures and tutorials; less successful students may have genuine reasons for non attendance" p.97. This finding implies education policy makers need to make policies that would either compel or motivate students to attend school and classes regularly because holding other factors constant learners performance would go up when their class attendance goes up.

In interpreting and generalizing findings of this study, note was taken of the fact that the sample size for the study was fairly small. Only three community senior high schools were involved. Community senior high schools were less endowed school established to enhance access and ensure no child is left behind. The schools do not have large physical facilities and staff capacity comparable to old well endowed senior high schools that have made a mark and require competitive entry scores. Most of these community senior high schools were classified as category 'D' schools in raking ranging from category 'A' as best followed by categories 'B' 'C' and 'D' being the least attractive to students. In spite of the relatively small sample size of the study sample population, its strength lies in the fact that the findings support results of many other previous studies that investigated the same phenomenon.

The study found a strong positive correlation between learners' class attendance and their academic performance. This implies learners who had high class attendance also score high in the end of term examinations while learners who had low class attendance recorded low academic performance scores. The difference in academic performance of low class attendance students and high class attendance students was statistically significant, meaning the difference was not due to chance but rather it was a real difference. The study found further that male students had statistically significant scores than their female counterparts in economics even though there was no statistically significant difference in the class attendance of male and female students. The study viewed this as an indication that female students studying economics in community senior high school be given some special attention so that they can come up to the level of their male counterparts.

# CONCLUSIONS

The study concluded that in spite of the fact that senior high school education is free in Ghana, there is need to improve the rural economy so that parent in rural communities are able give their wards in senior high schools the required support. This will help to improve school and class attendance among students and boost their chances of higher academic performance. Another conclusion arrived at by the study is that teaching methodology was a concern to students. Teachers should therefore be assisted by the Ghana Education Service to attend regular capacity building training programmes to update their knowledge in the area of teaching methodology. This will help them to deliver their lessons more creatively, generate interest and attract students to class. This will boost class attendance and have a positive effect on academic performance of learners. Schools managements should also come up with

class attendance policy and strategies that can inspire attendance. A policy with some elements to motivate learners for class attendance and sanction them for non-attendance can help boost school and class attendance. School administrators and teachers should promote engagements with parents and students on the phenomenon of students' class attendance and academic performance relationship as well as other non academic benefits like acquisition of habits necessary for work and professional future lives. Finally, the study concludes that apart from other input variable necessary for successful education delivery, school and class attendance is a key variable that needs to be worked on in order to improve student academic competences and success to meet stakeholders' expectations

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