

Article

# An Appraisal of School-Related Factors that Contribute to the Academic Achievements of Low Social-Economic-Status of Students in Ghana

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**Abstract:** The objective of the study was to examine the school-related factors that contribute to the academic achievements of low- social economic – status of students in the Aboom Circuit of the Cape Coast Metropolis during 2015-2016 academic years. The study adopted descriptive survey research design. Purposive and random sampling techniques were used to select teachers, schools and students. The five junior high schools (St Nicholas, St. Monica, Aboom Methodist B, Aboom Zion A and Aboom Zion C) were randomly selected from the ten schools in the circuit. A proportional allocation was used to determine and allocate the total number of students from the population to each school. The main instrument for data collection was questionnaire. The data were entered in a pre-designed template in the Statistical Package for Social Science (SPSS) software, version 21. The data were analysed using descriptive (frequency and percentages, mean and standard deviation) and inferential statistics (correlation). The research hypothesis was also analysed using Pearson Product Moment Correlation. The hypothesis was tested at 0.05 level of significance. The study indicated that school-related factors such as school time schedule, resources, school climate, guidance and counselling, school-parents' relationship may significantly contribute to students' academic achievement. It is also concluded that when the right atmosphere or conditions are created, students can perform well irrespective of their socio-economic statuses or backgrounds. It is recommended that the Ministry of Education (MOE)/Ghana Education Service (GES) in partnership with school administrators should provide adequate teaching and learning resources and facilities for effective teaching and learning at the school. It is also recommended that in other to ensure effective teaching and learning, the Ministry of Education (MOE) and the Ghana Education Service (GES) should collaborate to implement a class size reduction policy effectively as expected. This means that the student-to-teacher ratio should strictly be adhered to.

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**Keywords:** School-Related, Academic Achievements, Low Social-Economic-Status, Students

## 1. Introduction

Students are the key assets of every school and schools have no worth without students [1]. The social and economic development of the country is directly linked with students' academic achievement several school environmental factors have generally been identified as influencing academic achievement. These include availability of instructional materials, school location and quality of the physical facilities, class sizes and pupil-teacher ratios, teacher qualification and experience, and supervision. Students' achievement is significantly correlated with satisfaction with academic environment and school facilities such as library and computer lab in the institution. With regard to background variables, he found a positive effect of high school achievement and for school achievement; he found no statistical evidence of significant association between family

income level and academic achievement of the student [2]. A study also found that the member of educational board will be educated and their impact on school is positive, for professional development it is essential for student learning. The students who are actively engaged in the learning process are observed to have a positive correlation with the CGP [3].

A study effort from student and the proper use of the facilities provided by the institution to the student, a good match between students' learning style and are positively affect the student's achievement [4]. Student achievements are linked with use of library and level of their parental education. The use of the library positively affected the student achievement. The academic environment is the effective variable for students and it has positive relationship with fathers' education and grade level [5]. Most importantly school environment can affect students' academic achievement: insufficient number of advisors leading to inefficient counseling. With strict regulations, overloaded assignments, severe punishment measures, influence of irresponsible friends, accommodation in poor surrounding can affect students' academic achievement [6]. A study revealed that teaching quality is positively related to students' achievement at 0.01 level of significance [7, 8]. Nevertheless, teachers' characteristics and teaching behavior held no significant relation to students' achievement [9].

Instructional materials provide information, organise the scope and sequence of the information presented, and provide opportunities students to use what they have learnt. Students usually perform better when they have books or study aids to foster their learning. These study aids or material resources could be textbooks, teachers' guides, wall pictures, maps, atlases and other learning aids. The availability and use of teaching and learning materials affect the effectiveness of a teacher's lessons [10]. In addition, the school location and quality of the physical building influence the achievement and achievement levels of pupils. This implies that quality of physical facilities is positively related to student achievement. This assertion corroborates with another study that good sitting arrangement and well-built schools produce high academic achievements and achievement, while dilapidated buildings that lack mental stimulating facilities coupled with low or no sitting arrangements is destructive [12]. Similarly, the entire unattractive physical structure of the school building could de-motivate learners to excel academically. The indication here is that learner's environment mismatch and promotes poor academic achievement [13].

Class sizes have also been identified as determinants of academic achievement. Studies have indicated that schools with smaller class sizes perform better academically than schools with larger class sizes. For instance, indicated that three class factors (class size, student classroom space and class utilization rate), when taken together, determined significantly students' academic achievement in Oyo state, Nigeria [14]. Similarly, a study found out that there was a significant correlation between school size and students' achievement in Pakistan, interestingly small schools performed better than medium and large schools [15]. A research found out that class size to be inversely related to achievement, especially for children in early grades [16]. A study of the ideal class size and its effects on teaching and learning in Ghana concluded that class sizes above 40 have negative effects on students' achievement [17]. Researchers have attributed the phenomenon to lack of effective supervision and monitoring at school, lack of motivation for teachers and inadequate number of qualified teachers to fill empty classrooms [18]. Also, the cause of poor academic achievement in the Shama Sub-Metro of Shama Ahanta East Metropolitan Assembly (SAEMA) in Ghana to a combination of factors relating to the school environment, teachers, pupils and parents [19]. In the same vein, factors such as intellectual ability, poor study habit, achievement motivation, lack of vocational goals, low self-concept, of the family, poor family structure and anxiety as contributing to educational achievement [20].

Furthermore, schools with effective supervision of teaching and learning activities have high achievement rates. A study of 60 schools from peri-urban (29 schools) and rural (31 schools) areas in Ghana found that academic achievement was better in private schools than public schools because of more effective supervision of work. However, if circuit supervisors are more regular in schools, this would put the teachers on the alert to be more regular and early in school. This would forestall teacher absenteeism and improve teaching in the schools. If teachers are present and are always following regular visits of circuit supervisors, pupils would be challenged to change their attitudes toward school [19].

The study is rooted in human capital theory. Human capital theory was first developed by the economists Schultz and Becker to account for increases in students' achievement (productivity) that could not be explained by improvements in technology or financial capital [21, 22]. The idea behind human capital is that the skills, talents and knowledge of people amount to a kind of "capital" analogous to financial assets [23]. The human capital model is an elaboration of the common sense notion that the function of schools is to teach students; that is, to provide them with information and skills that will be valuable in later life [24].

The human capital theory rests on the assumption that formal education is highly instrumental and necessary to improve the productive capacity of a population. Further, the human capital theory is concerned with the wholesome adoption of the policies of education and development. In short, the human capital theorists argue that an educated population is a productive population [25]. The theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability, which is a product of innate abilities and investment in human beings [26]. The provision of formal education is seen as an investment in human capital, which proponents of the theory have considered as equally significant or even more worthwhile than that of physical capital [27].

A family's socio-economic status is based on family income, parental education level, parental occupation, and social status in the community such as contacts within the community, group associations, and the community's academic achievement of the family. Families with high socio-economic status often have more successes in preparing their young children for school because they typically have access to a wide range of resources to promote and support young children's development. They are able to provide their young children with high-quality child care, books, and toys to encourage children in various learning activities at home. Also, they have easy access to information regarding their children's health, as well as social, emotional, and cognitive development. In addition, families with high socio-economic status often seek out information to help them better prepare their young children for school.

Over the past few years, concerns have been raised by stakeholders about the poor academic achievement of students in Aboom circuit of the Cape Coast Metropolis. The Chief Examiner's Report (2015) revealed that the standard of the candidates' achievement was diverse. This situation raises question about the depth of understanding of factors affecting the low achievement of students of the Aboom Circuit JHS. Is the poor achievement of students caused by parents' neglect or school environmental factors? The main purpose of the study was to examine school-related factors that contribute to the academic achievement of low-SES JHS students in the Aboom Circuit. The study was guided by a research question - What are the school-related factors that contribute to the academic achievement of low-SES JHS students in the Aboom Circuit? and research hypothesis - H<sub>0</sub>: There is no significant correlation between school-related factors and academic achievement of low-SES JHS students in the Aboom Circuit.

## 2. Materials and Methods

The study adopted descriptive survey research design. Purposive and random sampling techniques were used to select teachers, schools and students. The five junior high schools (St Nicholas, St. Monica, Aboom Methodist B, Aboom Zion A and Aboom Zion C) were randomly selected from the ten schools in the circuit. A proportional allocation was used to determine and allocate the total number of students from the population to each school. The main instrument for data collection was questionnaire. The questionnaire was developed using four-point, Likert-type Scale ranging from 1 = strongly disagree (SD), 2 = disagree (D), 3 = Agree (A) and 4 = strongly Agree (SA). On this scale, the highest mean score possible was 4 and the lowest mean score possible was 1. The midpoint between these two extreme scores was 1.50 which was arrived at thus:  $\frac{4-1}{2} = \frac{3}{2} = 1.50$ . Hence, the cut-off point for deciding whether the school related factors was high or low was  $4 - 1.50$  or  $1 + 1.50$ , which in either case is 2.50. Therefore, any item having school related factors mean score of 2.50 or higher was regarded as high school related factors. The data were entered in a pre-designed template in the Statistical Package for Social Science (SPSS) software, version 21. The data were analysed using descriptive (frequency and percentages, mean and standard deviation) and inferential statistics (correlation). Research question was analysed using mean and standard deviation. Hypothesis was also analysed using Pearson Product Moment Correlation coefficient. The hypothesis was tested at 0.05 level of significance.

## 3. Results and discussions

This section of the study presents results and discussions of teachers and students views of school-related factors that contribute to academic achievement of low-SES JHS students. On a four-point, Likert-type scale (1 = strongly disagree, 2 = disagree, 3=agree, and 4 = strongly agree), both teachers and students were asked to indicate their levels of agreement or disagreement with statements posed by the researcher on the school-related factors. The results were discussed using means and standard deviation. *A mean of 2.50 and above indicates respondents' agreement with the factors while a mean of 2.49 and below indicates respondents' disagreement with the factors.* The results are presented in [Table 1](#).

**Table 1. School-Related Factors that Contribute to the Students' Academic Achievement**

Statements	Teachers (n=30)		Students (n=347)	
	Mean	SD	Mean	SD
The school time schedule is followed by the teachers.	3.27	0.87	3.43	0.76
There are school programmes that help students to learn.	3.10	0.80	3.34	0.80
There are available library references in the school.	2.43	0.97	2.26	1.08
Classroom is comfortable enough for teaching and learning	2.80	0.78	3.33	0.86
There is enough space in the library for learning	1.83	0.79	2.01	1.04
The school has adequate textbooks for all the subjects in the library	2.30	0.99	2.41	1.12
The school has adequate facilities for teaching and learning.	2.43	0.82	2.34	1.01
In my class, the students are too many.	2.53	1.01	2.82	1.06
The school compound is clean and orderly for learning.	2.97	0.85	3.31	0.82
The school provides guidance counselling to all students	2.93	0.94	3.29	1.05
The school ensures that all parents attend school meetings	2.57	1.10	3.40	0.82
Mean of Means/ SD	2.65	0.90	2.90	0.95

*Source: Field data, 2016*

[Table 1](#) shows the results of the respondents' (both teachers' and students') views on school-related factors that contribute to academic achievement of students of low SES. It

is obvious from the results that the majority of the respondents agree with the statements concerning school related factors. For example, it was realized that both teachers ( $M=3.27$ ;  $SD=0.87$ ) and students ( $M=3.43$ ;  $SD=0.76$ ) strongly agreed with the statement that the school time schedule was followed by the teachers. The results suggest the school time schedule for teaching and learning (productivity) was being followed by the teachers, administrators and students in the schools.

From [Table 1](#), concerning the statement, "There are school programmes that help students to learn", it was observed that the majority of the teachers ( $M=3.10$ ;  $SD=0.80$ ) and students ( $M=3.34$ ;  $SD=0.80$ ) strongly agreed. This result indicates that the schools had educative programmes that facilitated student learning. It was found that both teachers and students ( $M=2.80$ ;  $SD=0.78$ ;  $M=3.33$ ;  $SD=0.86$ ) strongly agreed with the statement that classrooms were comfortable enough for teaching and learning. It was revealed that both the teachers ( $M=2.97$ ;  $SD=0.85$ ) and students ( $M=3.31$ ;  $SD=0.82$ ) indicated that the school compound or environment was cleaned and conducive for learning. Also, both teachers ( $M=2.53$ ;  $SD=1.01$ ) and students ( $M=2.82$ ;  $SD=1.06$ ) agreed with the statement that the students were too many in the class. These results imply that both classroom and school environment and climate could contribute to students' academic achievement.

As evident in [Table 1](#), both teachers ( $M=2.43$ ;  $SD=0.97$ ) and students ( $M=2.26$ ;  $SD=1.08$ ) disagreed with the statement that there were available library references in the school. This result implies that books in library for references were not available for teaching and learning in the schools. Data on the statement "There is enough space in the library for learning", showed that both teachers ( $M=1.83$ ;  $SD=0.79$ ) and students ( $M=2.01$ ;  $SD=1.04$ ) disagreed with the statement. Again, as regards the statement, "The school has adequate textbooks for all the subjects in the library", it was realized that both teachers ( $M=2.30$ ;  $SD=0.99$ ) and students ( $M=2.41$ ;  $SD=1.12$ ) disagreed with the statement. Similarly, with reference to the statement "The school has adequate material resources and facilities for teaching and learning", it was found that both teachers ( $M=2.43$ ;  $SD=0.82$ ) and students ( $M=2.34$ ;  $SD=1.01$ ) disagreed with the notion. These results show that textbooks and other teaching and learning materials were not adequately available in the schools. This is believed to contribute negatively to students' academic achievement.

As shown in [Table 1](#), it was found that the majority of the teachers ( $M=2.93$ ;  $SD=0.94$ ) and students ( $M=3.29$ ;  $SD=1.05$ ) agreed with the statement that the school provides guidance and counselling to all students. This result means that the school provides guidance and counselling services to all students and it is believed that this would significantly contribute to students' academic achievement. To the statement "The school ensures that all parents attends school meetings", it was found that both teachers ( $M=2.57$ ;  $SD=1.10$ ) and students ( $M=3.40$ ;  $SD=0.82$ ) strongly agreed to the statement. This result suggests that there is a strong and positive school-parent relation. This is a significant factor that may contribute to students' academic achievement.

From these results, it is concluded that on the average, both teachers ( $MM=2.65$ ;  $SD=0.90$ ) and students ( $MM=2.90$ ;  $SD=0.95$ ) agreed with the statements concerning school-related factors that contribute to students' academic achievement. Teachers and students indicated that school-related factors such as school time schedule, resources, school climate, guidance and counselling, school-parents relationship may significantly contribute to students' academic achievement. This result suggests that both teachers and students had positive view concerning school-related factors and it is deduced that these factors would significantly contribute to students' academic achievement.

These results confirm the findings of a previous study that among the school-related factors, unqualified and poorly trained teachers, inadequate facilities, and dilapidated instructional materials significantly affects students' academic achievement [28]. These results are also consistent with the finding of another similar study that students' achievement is significantly correlated with satisfaction with academic environment and the facilities such as library and computer lab in the institution [2]. The academic environment

is the effective variable for students and it has positive relationship with fathers’ education and grade level [5]. This finding also supports earlier study that school environment and teachers’ expectations from their students also have strong influence on student achievement [29]. This is consistent with the present study’s findings that availability of school programmes, library reference books, and comfortable classrooms were all deemed to have impact on the students’ academic achievement.

These results were in line with another scientific study that the number of facilities a school offers usually determines the quality of the school, which in turn, affects the achievement and accomplishment of its students as positive school environment affects students’ academic achievement [30]. Also, strict regulations, overloaded assignments, severe punishment measures, influence of irresponsible friends, accommodation in poor surrounding affect students’ academic achievement. Instructional materials provide information, organise the scope and sequence of the information presented, and provide opportunities for pupils to use what they have learnt. Students usually perform better when they have books or study aids to foster their learning [31]. These study aids or material resources could be textbooks, teachers’ guides, wall pictures, maps, atlases and other learning aids. The availability and use of teaching and learning materials affects the effectiveness of a teacher’s lessons [10]. These results were in agreement with the findings of a study that the quality of the physical facilities is positively related to student achievement. Similarly, they found that the entire unattractive physical structure of the school building could de-motivate learners to achieve academically [11].

Class sizes have also been identified as determinants of academic achievement. Studies have indicated that schools with smaller class sizes perform better academically, than schools with larger class sizes. These results confirmed the findings of a similar study that class size, student classroom space and class utilization rate determined significantly students’ academic achievement [14]. Similarly, a study found a significant correlation between school size and student achievement. They revealed that small schools performed better than medium and large schools [15]. Kraft (2004), in his study of the ideal class size and its effects on teaching and learning in Ghana, concluded that class sizes above 40 have negative effects on students’ achievement; unconducive for serious academic work [17, 32].

**Hypothesis 1:** There is no significant correlation between school-related factors and academic achievement of low-SES JHS students in the Aboom Circuit.

As seen in Table 2, the relationship between school-related factors and academic achievement was investigated, using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure that there were no violation of the assumptions of normality, linearity and homoscedasticity. The results of the study indicated that there was a strong and negative correlation between the two variables [ $r = -0.70, n=377, p < 0.005$ ], with high levels of perceived negative school-related factors associated with low levels of students’ academic achievement and vice versa.

**Table 2. The Relationship between School-Related Factor and Students’ Academic Achievement**

Variables	N	df	R	R <sup>2</sup>	Sig. (2-tailed)
School-related factor					
	377	375	-0.70*	0.49	0.020
Academic achievement					

Source: Field data, 2016

\*Significant at  $P < 0.05$

This result suggests that when there are high negative school-related factors, students’ academic achievement would significantly decline. This implies that negative school-re-

lated factors would significantly determine and influence students' academic achievement. However, based on the coefficient of determination value ( $R^2 = 0.49$ ), it could be concluded that school-related factors explain or account for only approximately 49% of the changes in students' academic achievement. This therefore implies that there are about 51% of the changes in students' academic achievement which are accounted for by other variables or factors. From this result, it is concluded that there is a statistically significant correlation between school-related factors and academic achievement of low-SES JHS students Aboom Circuit; consequently, the null hypothesis is rejected.

These results were consistent with the findings of another study that students' achievement is significantly correlated with satisfaction with academic environment and with the facilities such as libraries and computer labs in the institution [2]. The academic environment is the effective variable for students and has positive relationship with fathers' education and grade level [5]. The availability and use of teaching and learning materials affect the effectiveness of a teacher's lessons [10]. Students usually perform better when they have books or study aids that foster their learning. These study aids or material resources could be textbooks, teachers' guides, wall pictures, maps, atlases and other learning aids. The quality of the physical facilities is positively related to student achievement [11]. Class sizes have also been identified as determinants of academic achievement. Studies have indicated that schools with smaller class sizes perform better academically than schools with larger class sizes. Class size to be inversely related to achievement, especially for children in early grades [16]. The ideal class size and its effects on teaching and learning in Ghana concluded that class sizes above 40 have negative effects on students' achievement; large class sizes are un conducive for serious academic work [17, 32].

#### 4. Conclusions and Recommendations

The study indicated that school-related factors such as school time schedule, resources, school climate, guidance and counselling, school-parents' relationship may significantly contribute to students' academic achievement. It is also concluded that when the right atmosphere or conditions are created, students can perform well irrespective of their socio-economic statuses or backgrounds. It is recommended that the Ministry of Education (MOE)/Ghana Education Service (GES) in partnership with school administrators should provide adequate teaching and learning resources and facilities for effective teaching and learning at the school. It is also recommended that in order to ensure effective teaching and learning, the Ministry of Education (MOE) and the Ghana Education Service (GES) should collaborate to implement a class size reduction policy effectively as expected. This means that the student-to-teacher ratio should strictly be adhered to. It is recommended that School administrators and educators should make concerted efforts to provide positive and conducive school atmosphere or climate to enhance students' academic achievement.

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