



Background and Classroom Correlates of Students' Achievement in Physics

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ABSTRACT

This study was carried out to find the impact of background and classroom correlates on students' achievement in Physics. The samples used for the study were selected randomly from five senior secondary schools in Shomolu Local Government Area of Lagos State.

A total of two hundred (200) randomly selected SS2 students served as the subjects for this study. Three null hypotheses were postulated and tested at 0.05 level of significance to the impact of background and classroom correlates on students' achievement in physics. The instruments used for this study were physics classroom Observation Schedule (PCOS) and Classroom Interaction Questionnaire (CIQ).

The data collected were analyzed using statistical packages for social sciences (SPSS) which include: simple percentage, mean, standard deviation, simple regression and ANOVA. The result of the findings showed that background and classroom correlates have significant influence on students' achievement in physics. The implications of the results for enhancing students' achievement are discussed. Some general application for teachers, students, curriculum planners and administrators are proposed.

INTRODUCTION

Physics is an important science subject that makes immense academic demands on students in its learning. The learning of physics is difficult at best and almost impossible at worst. But because of its enormous importance to science and technology, there is understandably huge interest in students' achievement in Physics. In the light of this, the relationship between the background and classroom environments and students achievement in Physics has generated a great deal of discussion for a long time.

The family background should be an environment in which children have the opportunity to succeed and be happy. A conducive home influence manifests itself further in the school environment. It helps plan, execute and evaluate the child's school experiences, in relation to his level of maturation and readiness for future career. Equally, both parents should help to protect and foster the physics and mental health of the child in order to help him/her excel academically. Furthermore, it has been x-rayed that some factors, which are attributes present in the family contribute greatly to the academic performance of the student. Among these are: parental educational background, income, exposure, parental relationship with each other, strength of the family population, religion, sex differentiation, occupation etc.

The interplay of these factors in the family determines to a greater extent the readiness of the child to learn. Nevertheless, the influence of other factor like mental and physical disabilities can account for poor academic performance in physics.

In the whole, the family background being an umbrella in the initiation of the child into the world should provide favourable conditions, which will improve the academic performance of the child, irrespective of the constraints encountered in his academic pursuits.

Most subjects offered in secondary school have some factors, which affect their assimilation by student. Physics is no exception. Students come from different homes and as a result, have different challenges to contend with. It is a common knowledge that student are usually beset with various kinds of problems as soon as they are admitted into secondary schools.

The reason is that secondary school age is a period when they attain adolescent age. An age, the normal changes in the physical growth, emotional and social development of students takes place.

However, it has been found that children social groups have different attitudes solving mentally tasking problems. And few subjects are more mentally tasking those physics. There is thus evidence that the individual learn to think the way his group defines his thinking. The recognition of the existence of sub-cultures makes it necessary for the teacher to know about the environment of his student, his parents, the influence if any, which the students' position in the family group exerts upon his observable characteristics. A child only needs to understand the cultural motivation of his parents, which is not clearly shown except by what the parent expect of education.

There are several problems that may affect the academic achievement of student one of which is attitudes of parents toward their children. This brings the role of parents into focus. The first major role of parents is to guide their children right. Through this children, become good and responsible citizens right from infancy while learning the values of life. By teaching their children early how to properly conduct themselves, parents can help them to avoid a life full of problems. Also, parents influence the character of their children either negatively or positively. Some parents have the erroneous impression that once they provide the three basic things of life food, clothing and shelter, their responsibility is done. This is a wrong impression parent should supervise their children's work at school. They should keep the lines of communication open so that their children can always talk to them freely on issues affecting their well-being.

Similarly other problem affecting the academic performance of students is the effect of broken homes. Generally, children from broken home are unhappy and this unhappiness may affect their academic performance. Other related problems influencing students' academic achievement are related to socio-economic status of the parents. It is observed that children from low-income parents usually face the problem of competing with those from wealthy homes especially in schools. Also, in some homes there is enough money to spend and the children are properly taken care of.

Just as the student's background is important to academic achievement, so important also is his classroom environment. The school environment should be conducive enough so as to present in learning. For instance, a school environment may indicate a great deal of cooperation among the various groups in the school setting while another may reveal a climate of tension and friction among the various group that makes up the school system. Which of these environments a child is exposed to will definitely affect the performance of the child either positively or negatively as the case may be.

Ojeritude (1997) postulated that for format education to be properly provided, schools should be built with necessary facilities to ensure enriched and enabling environment for teaching and learning. To him, any school suitable for academic work requires physical facilities such as properly constructed and equipped classroom furniture, games facilities, laboratories, and hostels with basic amenities and any other equipment necessary for teaching and learning. Unfortunately many schools operate without laboratories for science subjects and many other facilities. Classroom blocks are dilapidated and lack furniture. As a result, many students sit under trees, which serve as the umbrella for rain and sunshine. According to Stoops and Johnson (1989), the school environment affects students' education, their conduct. Inadequacy of space and facilities in schools can easily inhibit the productivity of both the teacher and the learner while a conducive learning environment would enhance the sustenance of interest, stimulate learning and ensure satisfactory development and academic performance.

In the light of the foregoing, many parents and guardians often want their children or wards to attend schools, which are believed to be adequately equipped. Hence, they prefer certain schools to others not minding the cost. Parents look for schools that are well staffed with teachers who have a sense of commitment. Since the teachers in these schools are better catered for than those in public schools who are working under poor environment and without adequate facilities.

The above assertion summarizes why students background and classroom environment can influenced their academic achievement.

STATEMENT OF THE PROBLEM

In recent years, a great awareness has developed among the parents, teachers, educators, government officials, researchers and education planners over those factors that could influence students' academic performance in Nigeria.

The main problem is to find out the factors related to background and classroom environment that influence students performance in Physics.

LITERATURE REVIEW

The type of home a child comes from affects the learning behaviour of the child in term of his acceptance of the values by which the home is adapted to. A home in which positive attitudes are not encourages, love is not given and affection denied, will not be a suitable home environment for a growing and developing child. When a child is denied these right or privileges, a negative attitude is developed towards the learning environment. The child tends to take things lightly and is very resistant and unserious concerning school activities. Children can come fro various types of home such as the natural and stable home, the polygamous home, divorced or separated homes. Children from a natural and stable home usually have a more positive attitude towards learning. They have been seen over the years to be more successful academically and intellectually in all area of their educational training. Due to the peaceful co-existence at home, the children grow up to feel loved and derive a clear understanding of the society, the environment in which they live, as well as develop a proper manner of adjustifying to the ernvironment.

The home and the family set up have the greatest influence on the child. The parental influence and childhood experiences are considered important factors that are responsible for child's development and intelligence. Dubey (1997) stated that "no other agents of socialization is as important to the total make up of the child than his family". The child home should provide a good environment and facilities for a child to learn and to develop early education experiences.

According to Croward Crow (1986), "the home plays a significant role in the early development year of a child.

Also, Fleminy (1990) believes that the first in the sequence of a child's extra school experience is the home into which he is born. It is desirable to discover as much as possible about the family background from which a student comes from.

Lodge (1992) believes that education should begin from birth and in the home. To him education was in fact growth and that the early years were all important. This he feels that the environment of the child influences his character and that all true education involves balance and harmony.

Walter (1995), sees home background as the basis for children's development. If the home is secured, in peace and harmony, children are most likely to be at peace with every thing they do. Once the home is broken, and the child is with either parent, there is always a vacuum. So, a parent who keeps custody of the child must play a dual role.

It can therefore be expected that the home conditions will exercise considerable influence on a child's background. The kind of mental challenge to which a child is exposed to at various period is likely to determine the kind of mental abilities which he possesses.

According to Odebumi (1975), "when parents are made aware of favourable environments children may be academically prepared for formal school such as primary school, secondary school and territory institutions. This statement suggests that the child's come has a considerable role to play in the educational development of the child. Similarly, Taiwo (1997) stated that: "The home should provide the opportunity for a child to show his interest and ability by providing an environment which is intellectually stimulating to the child.

Parents should encourage their children by providing them with school materials books, writing materials and other school needs that might help them develop intellectually. A child that is deprived of the above items and encouragement would find it difficult in adjusting to the conditions in the school.

The attitude of parents towards their children is an important factor influencing the academic performance of such a child. A child first experiences a sense of belonging and affection while at home. The way and manner a child behaves in school is a functiuon of the relationship that exists between him and his parents at home. Studies have shown that a child who is loved and cared for by his parents responds positively to school work in terms of academic performance of parental affection perform poorly in school. Parents should therefore desist from depriving their children of their love and affection. Depriving a child of a good education or affection might turn the child to be a criminal or a truant in school.

According to Durojaiye (1976); "a child is not born a criminal, lazy or unaduraturous it is the environments that make him so"

A child whose parents are educated would likely perform better than a child from semi-literate home. Various studies revealed a positive influence between the educational attainment of parents and the academic performance of student. Some of these researchers pointed out that where parents are highly educated and reasonable; they can coordinate the home and school influence on their child in such a way as to bring progress in his academic work.

Douglas et al (1991) agrees that: "If parents are themselves well educated and successful in life, the children are further stimulated to achieve by this identification stimulated to achieve by this identification Ogunlade (1993) looked into the extent to which the educational attainment of children and his findings revealed that former has a greater effect on the latter.

Various reviewed works (1992) carried out in the United Kingdom attempted to bring out the influence of occupation, income, educational attainment and cultural interest of parent on the abilities of children as measured by intelligence quotient and school achievement. The studies showed a positive correlation between parents' level of education and the children's affective intelligence. Educated parents encourage their children to develop interest in school work by providing for them to succeed in life as they themselves have done.

Their presence at home provides opportunity for the child to be aware of a goal to strive towards. While children from homes with poor educational attainment may suffer from material deprivation. Their parents may consider going to school a waste of time, money, and energy and may be reluctant to provide for their school needs.

Douglas et al (1991) pointed out that: "there are many aspects of home life and particularly to the relationship between parents and children which may stimulate or inhibit school progress through their effects on the children's motivation to work and learn. It is generally considered that achieved is increased by strong motivation.

One can infer from the above that closeness to an adult member of the family may bring about remarkable results in one's academic performance. When such adult member happens to be highly educated parent, the result is very likely to be far better.

It is well known that children from different social classes achieve different degrees of academic success.

The robin report (1993) noted generally, that there was a cumulative disadvantage for the children from working class homes. The report revealed that children from upper socio economic status have 60% greater chance of completing their education than children from low working class homes.

Values and attitudes have been associated with different social classes and quite notable, is the way these values and attitudes influence parents, behaviour towards the child.

Duvall (1996), gave two different values orientations among parents viz, traditional and developmental value. Traditional values are common among working class and lower class parents and is concerned with the cleanliness, obedience and the respect of the child. Developmental values on the other hand, place emphasis on the child's motives and development of self-control and emphasize internal qualities. This according to her is found among the middle-class people.

Hyman (1993), believes that middle class people value freedom and emphasis orderliness and security.

Odeunmi (1975), said that "middle class parents tends to provide a good environment for their children academically than those of poor parents". According to him, rich parents can provide books and materials for their children to work at home. This the poor man cannot afford for his children.

Nevertheless Hurlock (1983) is of the opinion that the level of socio-economic status the students' belong affect their social acceptance. She stressed that students of lower socio-economic status have poor social acceptance while those with high socio-economic status have high social acceptance.

Bookcook (1982) agrees that the most important predictor of achievement associated with the family is the socio-economic status of the parents. According to him, the higher the socio-economic status of the students' family, the higher this schools achievement to be. Research shows the same pattern in America, Asia and Africa. The relationship of socio-economic status to achievement is well known.

Socio-economic status remains the most important even in the face of the significant variable ability. (Bookcook 1982)

However, socio-economic status is associated with a complex number of variables and since environment is not a one-dimensional thing, so socio-economic status is related to other family characteristics like the family size. Research in other countries show, for example, that children from lower economic status home where the family is large start school with verbal disadvantage (Durbey et al 1998). This is assumed to be because such children have less interaction with adults since mothers and other siblings are working.

Also, Bookcook (1982) has found out that the kind of relationship and communication patterns that middle-class children in developed societies have with their parents, help them to participate in the expected direction in school. However, parents from the lower classes do not provide the same opportunities for their children. Reasons for this differences in experience, knowledge, economic security and the requirements of their work situation (Kohn 1982).

Recent studies in Nigeria do seem to support this conceptualization. Bolarinwa (1977) illustrates how patterns of child's behaviour established in the home, have a carry-over to the school.

Also, the hypothesis that there is a common cause, namely the pattern valued help by parents often influences both family size and intelligent quotient (IQ) of children has been tested and appears true (Menes Hint 1991). It would seem that whatever the cause, the quality of life in large families does not influence measured intelligences and perhaps even attitudes towards the school. These tendencies in their turn will have a vital bearing on success at school more especially, in the process of selection for secondary education.

Good course content and technology enhance students' learning (Mayer et al, 2000). Researchers have found out that greater gains in student's achievement occur in classes with few students than in the large classes (Kinger 1998). Class size reduction allows for individualized attention. Small classes also enhance safety, discipline and order. Reduction in class size does not however guarantee quality if qualified teachers and appropriate classroom buildings are not available to cater for the expansion in the number of classrooms.

According to Sears (1978) the building, furniture and equipment contribute remarkably to the intellectual growth of the learners more especially, the instructional strategies are often influenced by the quality and quantity of the school facilities. When students are overcrowded in a terrible condition, this will have a disruption of the student's mental activities and situation that generally initiates against affective teaching and intellectual development of the students. Furthermore, for effective teaching, well-equipped laboratories and subject norms are needed but the truth is that majority of Nigerian Secondary Schools today lack these essential facilities.

According to Mahasan (1997), one of the Nigerian teachers' handicap is usually take they are made to face over populated classes in an uninviting environment which does not encourage learning.

In a majority of Nigerian secondary schools, classroom accommodation is grossly inadequate as a result of the large enrolment in these schools the classrooms are usually overcrowded with up to eighty or more students receiving instructions in a classroom designed for only thirty to forty students. In most cases, the chairs and desks are not enough and in some schools, some students are standing up while some sit on bare floor to learn.

Olayemi (2001) observed that the depreciation that has endangered public Students learn more from teachers with strong academic skills (Ehrenberg and Brewer, 1995, Ferhuson, 1991). Teachers' assignment refers to the relevance of teachers' qualification with the subject(s) being taught. Middle and high school students learn more from teachers who hold a Bachelor's or Middle and high school students learn more from teachers who hold a Bachelor's or Master's Degrees in the subjects they are teaching (Darling-Hammond, 2000). Studies also suggest that students learn more from experienced teachers than they do from less experienced one (Darling-Hammond 2000, Hanughek *et al*, 1998). Professional development of high quality enhances students. Learning (Choy and Rocs 1998, US Department of Education 1999).

The role of a teacher is very important in any teaching exercise, especially since his/her direct participation can range from complete control over what is learned to minimal intervention. For instance, in schools where there are formal teaching methods, the teacher is the source of all the knowledge that the children acquire in class. Farrant (1994) further says that a good teacher therefore

is one has a good understanding of what his students used to learn and also of their capabilities for learning.

He is able to judge how much he needs to intervene in each pupils learning and knows the most effective way of providing this assistance. This skill of teaching lies in knowing who what and how to teach and also being able to evaluate them.

Whilaker (1995) was of the opinion that teachers are the most important factor in creating positive learning environment. He further stressed that as professional they know that teaching is more than simply passing information on a terra rosa. Many teachers are aware of the need of engaging in the "search for more life-enhancing and effective processes. Teachers' interest in initiating life enhancing learning activities and qualities than those associated with their initial training as teachers. Teachers need new knowledge, skills and qualities in order to cope with the complete process of classroom management and organization.

Adesina (1997) states that teachers constitute the single most important fabric upon which hangs the success of the whole educational edifices.

Onabamiro (1997) was of the opinion that some teachers in our secondary schools lack mastery of their subject and thereby cannot communicate effectively while some are too rigid in their teaching methods. These make student bored, irksome, irritated and demonstrate irresponsibility by showing lack of interest in the lesson.

In term of consistency and role modeling some teachers do not practice what they preach, for instance, a teacher who frequently comes late to the class, talks tactlessly, smokes freely in the school premises, dresses shabbily, indulges in moral laxity, absents him/herself without reasonable excuses, exhibits insurbodination to the principles and fellow staff is not likely to be taken seriously by the student when he teaches in the class and therefore such teachers' teaching is not likely to have a positive impact on the students in terms of learning.

A research conducted by Brestford entitled, the influence of classroom interactions on students was aimed at having a greater knowledge of how mutual interactions between students and teacher and also among the students could affect students attitudes and ultimately learning outcome. A group of students were selected as the research sample from various high schools in a British locality. The interaction that occurred between the teacher and students were observed.

Brestford report that in case where there was good communication between the teacher and students, learning takes place more effectively. The dialogue that ensures between the teacher and the students and also among the students create an enabling environment in which students can ask questions and expect a feed back either from the teacher or an a result of positive argument among other student.

He recommends that teachers undertake a series of processes or strategies, which can feed into the reflective process where through meaningful discussion; students can be made to think out the solution to problem by themselves.

Teachers can explain and justify to students the various purposes of various teaching device they employ. They can give clear guidance to students on what it means to work hard. He opines that where students are involved in a two-way discussion on the progress they make via classroom discussion, they develop the ability of thinking and talking about their problems in which case the teacher can provide necessary help resulting in better learning outcomes.

He also recommends target setting as a way of promoting dialogue between teachers and student and also among students. Since an ongoing dialogue between teacher and student using a shared language of teaching and learning means a culture in which students are trained to ask for help on how to improve their work. Where there is a culture of asking for help in classes as well as feedback and discussion about how well they are learning, student can therefore conclude that classroom interaction has a positive impact since they can reflect upon the work they do, can get adequate feedback on how well they are doing academically, make meaningful contribution to the reporting of their own achievement and can also ask their teachers how to improve their work.

Furthermore, effective classroom interaction could produce student who are free to learn and can perform better in class. Also there are those who are shy in class and hence cannot perform better academically. Therefore, it is the duty of the teacher through effective communication to identify these groups of students that make up the class and use the best teaching method to produce academically good performance.

Finally, the ability of the teacher to stimulate effective classroom interaction will help students cover more of their syllabus since they can easily walk up to teacher or a fellow classmate to explain an area of study that is not clear. The spirit of phobia will become less thereby leading to higher academic achievement.

In another research carried out by Onyinyechi in 2005, the teacher and student interaction in the classroom was studied with focus on verbal interaction. The research work is entitled, the level of teacher and student interactions and its implications on student's performance.

The descriptive research design was used for the study. The sample was 50 students selected from 3 secondary school in Ojo Local Government Area of Lagos State. The research instrument was a self-structured questionnaire divided into section A and B. Section A was based on personal data while section B focused on the variable under study. The reliability of the instrument was determined using the Pearson product moment correlation.

After the completed questionnaires were collected, the descriptive statistics of frequency counts and percentages was observed that the more often the teacher gave better the students assimilate and the better their performance of learning outcome. Hence, a teacher who communicates often tends to prepare for lessons, he encourages student work and make them to come to class punctually thereby promoting better performance. The higher the level of interaction, the better the student achievement. The researcher concludes that the level of teacher's qualification to a lesser or greater degree tends to affect classroom interaction. A teacher with advanced qualification and experience tends to communicate easily and better thereby enhancing the performance of students.

Onyinyechi recommends that a teacher should give room for questions and answers during classes since the study of Physics as a science course cannot be taught without proper clarification for proper understanding. Teachers should always use various teaching methods as deemed appropriate. They should also communicate and help students personally discover new techniques of problem solving.

PURPOSE OF THE STUDY

The purpose of the study is to examine the background and classroom correlates that influence student's academic achievement in Physics. Information on such factors as educational level of parents, types of employment, number of children living in the family and how they affect students in behaviours, attitudes, values and interest in the school environment. Also, an attempt was made to identify and critically look into some of the environmental variables such as teachers' characteristics, qualification, years of experience, school facilities, infrastructures and organizational climates in schools and to determine the extent which each of these variables affects the academic performance of students in physics.

The helps to understand the actors, which affect students' performance while realistic and adequate recommendations will be given, based on the researchers findings.

RESEARCH HYPOTHESIS

The following null hypotheses were tested

H₀₁ :There will be no significant relationship between the students' background and achievement in Physics

H₀₂ :There will be no significant relationship between classroom correlates and students achievement in Physics

H₀₃ :There will be no significant relationship between parental educational attainment and students achievement in Physics

METHODS

A simple survey design was adopted for this study. The study was directed at the population of senior secondary physics students and their teachers in Lagos State. The sample selection was limited to five (5) senior secondary three (SS3) students who have completed the recommended physics scheme of work for the three years. The five schools were selected by means of stratified random sampling technique. In each of these five schools, 50 students were randomly selected. This brings a total of 250 students and five physics teachers that were selected from all the schools.

INSTRUMENT

In an attempt to get the different views of subjects used in the study, two-questionnaire format titled Background and Classroom Correlates of Students achievement in Physics were developed, one for the teachers and another for the students. The teacher questionnaire consists of two parts, section A and B, section A dealt with personal information consisting of five items, while Section B consists twenty items. Similarly, the students' questionnaire was also grouped into section A and B. Section A elicited the personal information about the students while section B was developed on five(5) point Likert attitudinal scale with options and allotted weights of strongly agree(5points), agree(4points), strongly disagree(3), disagree(2) and undecided(1point). The face and content validation of the instrument was carried out by expert in measurement and evaluation while the test-re test method was applied to ascertain the reliability of the instrument using 20 physics students and 2 physics teachers who were not part of the participants.

DATA ANALYSIS

The results were analyzed using simple percentage. The researcher made hand score of the information gathered according to the research question guiding the study. The data analysis and results are presented with special reference to the researcher hypothesis in the study.

H01: There will be no significant relationship between the students' background and achievement in Physics.

The hypothesis was tested using simple regression analysis since it is measure of the relationship between variable and the extent magnitude of the relationship between variables. In the regression model, the students' background was used as the independent variable while achievement in Physics was used as the dependent variable.

Table1: Simple Regression Analysis of Students Background and Achievement in Physics

TABLE 1								
Variable Entered		SS	Df	R	R ²	Ms	f	Sig (0.05)
Students Background	Regression	32.707	2	0.131	0.017	16.354	0.614	0.000
	Residual	1864.800	198			9.418		
	Total	1897.507	200					

In order to ascertain the contributing factors of each of the independent variable coefficient was computed. The results that are presented in the table shows that the economic status of both the father and mother of the student will not impact on their achievement in physics. The null hypothesis is accepted.

Further, it is necessary to find out if there is any significant relationship between the classroom correlates and achievement in Physics or not. To accomplish this, we use hypothesis two.

H02: There will be no significant between classroom correlates and achievement in physics.

This hypothesis was tested using simple regression analysis.

Table 2: Simple Regression Analysis of Classroom Correlates and Achievement in Physics

TABLE 2								
Variable Entered		SS	df	R	R ²	Ms	f	Sig (0.05)
Students Background	Regression	295.196	1	0.395	0.156	295.196	13.118	0.000
	Residual	1601.591	199			8.048		
	Total	1897.507	200					

In order to ascertain the contributing factors of each of the independent variables to the dependent variables, co-efficient was computed. Evidence from the table above shows that classroom correlates will have impact on students' achievement in physics. The null hypothesis is rejected while alternate hypothesis is accepted.

Finally, we are to ascertain if there will be any significant relationship between parental education and students' achievement in physics. To accomplish this, we used hypothesis three.

HO3: There will be no significant relationship between parental education and students' achievement in physics.

The hypothesis was tested using the simple regression analysis.

Table 3 : Simple Regression Analysis of Parental Education and Student Achievement in Physics

TABLE 3								
Variable Entered		SS	df	R	R ²	Ms	F	Sig (0.05)
Students Background	Regression	6.992	1	0.060	0.004	6.922	0.260	0.000
	Residual	1890.585	198			9.548		
	Total	1897.507	200					

In order to ascertain the contributing factors of each of the independent variables to the dependent variables, coefficient was computed. Evidence from the table above shows that parental educational background will not have impact on students' achievement in physics. The null hypothesis is accepted.

DISCUSSION AND CONCLUSION

The outcome of this study shows that the economic status of the parents does not have a significant impact on the students' achievement in physics. Rather, students' achievement in Physics depends on other variables so students' achievement in physics. There is a 5% level of significance between classroom interactions and students achievement in physics. According to Akande (1996), good relationship ensures that teachers build up interests in the learners' future. The teachers should render assistance to their students' efforts at organizing their daily activities both in and out of the classroom. They should at all times interact with the students, listen and respond to their questions.

The interaction within the classroom tends to be beneficial to students. They make the effort to meet each other's needs because learning requires a co-operative and friendly atmosphere.

The interaction within the classroom tends to be beneficial to students. They make the effort to meet each other's needs because learning requires a cooperative and friendly atmosphere.

Summarily, classroom interactions contribute significantly to students' achievement in physics.

The outcome of this study shows that parental educational attainment does not have a significant impact on students' achievement in physics. This means that other variables rather than parental educational attainment are responsible for students' achievement in physics.

In the final analysis, it is observed that there is a significant relationship between classroom correlates and students achievement in physics. The result of the study essentially agreed with these of Whilaer (1995) who posited that when the learning environment is made conducive, that is, adequate provision of instructional materials are available, enough qualified teachers are on ground, good infrastructure is put in place, the learners becomes willing to study, which eventually gives them the essential motivation required that culminates into good academic performance.

Considering the finding of this study, it is advised that all stakeholders in education should play their parts to create a conducive school environment performance by providing instructional materials that student should use to learn effectively, measures should be taken by the relevant authorities to supply adequate educational facilities to schools, and ensure available school facilities making sure that they are well-utilized and properly maintained. Facilities like laboratories for science practical will enable a science student to perform very well in their academics. The environment where there are staff offices will enable the teachers to prepare themselves very well for the next class and also, he or she will be able to display his or her instructional materials. The environment and the students academic performance will be solid by learning in converse not abstract. The academic performance of students will be improved if all these things should be provided in school environment.

In the classroom situation, it is important for the teachers to encourage educational, personal and social interaction among students through group work in class project. Hence, lazy, unhappy

students, and those who experience boredom, and another parental dispute etc. shall be encouraged to get over their problems.

Parents should endeavour to meet regularly with teachers to discuss problems faced by their children in schools with a view to finding solutions to these problems jointly with the teachers.

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