

Influence of Classroom Environment on Achievement in English as a Foreign Language (EFL) in Some Selected Secondary Schools in Mokwa, Niger State, Nigeria

Fatima Yusuf and Jamilah Usman
Department of General Studies
Niger State College of Agriculture, Mokwa

Abstract

Environment plays a significant role in determining students' level of academic achievement and enhancing their holistic growth. Classroom as an environment is not just an intellectual space, but also a social, emotional and physical environment. The purpose of this study is to examine the influence of classroom environment on learning English as a foreign language from selected secondary schools in Mokwa, Nigeria. This study indorses the experimental approach to realize its objective. Two groups of students are classified as the Experimental and the Control group and assigned to study under two different classroom environments. The Experimental group consists of (100) students. These are accommodated in three well renovated classrooms; while the Control group which includes (100) students are assigned to study in non-renovated schools under relatively poor classroom environments. The two groups are taught the same English language material by teachers with similar qualifications and experiences during the first term of the academic year 2018. Scores in the English Final Examination for the two groups are compared to assess the classroom environment effect on the students' achievement. These scores are tabulated and analysed using descriptive statistics. The results reveal that there are significant differences between the achievements of the Experimental and the Control group in English in favour of the Experimental group who have studied under favourable classroom conditions. The researcher has also explored the administrators' and teachers' viewpoints regarding the learning environment in the study zone and its possible impact on students' achievement in English. The study recommends conducting further studies on the environmental effect on other school subjects and on female students' achievement.

Keywords: Academic achievement, Classroom environment; Learning resources; Physical elements

I. Introduction

The classroom is the place where the students learn the various skills that are necessary to qualify them to become significant adults. Ashton (2001) states that a classroom is where the students gain understanding of the contribution that they can make to build their identity and their society. It is where the students acquire the knowledge needed to achieve their ultimate goals and objectives in future life.

The school environment is an essential part of educational planning. The quality of education does not only depend on the teachers as shown in the performance of their duties, but also in the effective coordination of the school environment (Chuma, 2012). It is believed that a well designed school environment will help to achieve the expected outcomes of education through effective teaching and learning process. Effective teaching is likely to yield outstanding students' performance. Kilel (2012) assures that provision of sufficient learning facilities, and instructional materials, within suitable classroom atmosphere and proper school location are some factors in the school environment that are found to have an impact on the teaching-learning process. This may lead to the conclusion that the school environment would remain as an important issue that should be studied and well managed to secure reasonable students' academic achievement.

With the classroom being such an important place in the growth and development of a student, it is important, therefore, to understand the ways in which to form its environment in order to have maximum effective instruction (Punch, 2004). If schools play a major role in teaching the students how to be successful adults, then every necessary measure should be taken to safeguard that the learning environment is one that helps students work hard to achieve success. If not dealt with adequately, a classroom can be set up in a way that hinders creativity or, at least, in a way that does not promote acceptable learning level (Kilie, 2012). There are many things that can affect this environment. These may include physical elements such as wall art, arrangement of desks, and other learning resources. Also, there are non-physical elements such as the classroom regulations and rules, or even the sounds and light within the room. Each of these can affect a student's focus and hence his learning in the class. These elements can also affect the teacher's attitude in the class as well (Dihaisat, 2016). Additionally, the way in which a teacher controls the class, or manages it, will have positive or negative influence on the students (Best and Kahn, 2001).

In the case of language learning, adding various language labs makes the students feel that this is a classroom that requires active involvement in its activities. It also reflects that the students will not just sit and take notes, but they will act out as active members in that classroom. A classroom environment that allows students to work together in order to perform their learning tasks and allows maximum cooperative learning will represent an ideal classroom environment which in its turn pave the way for a successful and joyful language learning experience (Tayib, 2015)

Tsavga (2011) asserts that the learning environment plays a crucial role in determining students' success as it determines how a student behaves and handles his learning tasks. Indeed, the environment in which one finds himself tends to mould his behaviour so as to meet the demands of learning.

In Mokwa, where this study takes place, the researcher observes that the desire for providing quality education has increased and thus multiplies the responsibility for establishing a classroom environment that is effective and conducive to learning. It is generally known that poor classroom environment is expected to reflect negatively on students' performance.

Statement of the Problem

The negative influence of inadequate classroom environment on academic achievement of students in general and on foreign language learning in particular has been an issue of concern to all partners in the educational arena (NPE, 2012). More specifically, it is reported that secondary schools students' performance in English and in entrance examinations in Niger State is low and not satisfactory (Babangida, 2014). Many educators in the area have attributed this to poor classroom environment. In this regard, the researcher confirms that, with exception of a few newly renovated schools, most classroom environments in the study area have not been suitable for teaching and learning and indeed this is bound to have a serious impact on students' achievement in English; a case which needs careful assessment and in-depth investigation.

Purpose of the Study

The main purpose of this study is to investigate the influence of classroom environment on the performance of the first grade Secondary School students in English in Mokwa, Mokwa Local Government Area of Niger State, Nigeria. Specifically, this study seeks to assess the influence of

classroom physical environment on achievement of first year secondary school students in English and to give some practical suggestions to promote the learning environment.

Research Questions

The following research questions are formulated to direct the study:

1. What is the influence of classroom environment on the achievement of first grade secondary schools students in English in Mokwa, Mokwa Local Government Area of Niger State, Nigeria?
2. What elements in the classroom environment which influence language learning most?
3. What do stakeholders need to do to improve classroom environment to make it more conducive to learning English in Mokwa and Niger State at large?

Research Hypothesis

H0. Provision of adequate Classroom facilities will have a positive influence on the achievement of Mokwa secondary school students in English.

Significance of the Study

Findings from the study will attract parents', school managers', teachers', students' and the society's attention to the importance of creating an adequate learning environment in classrooms. Consequently, the findings of this study will assist school administrators and curriculum designers to develop strategies that promote classroom atmosphere and make it more suitable for learning English in Sudanese secondary schools. Furthermore, the findings of the study will act as a reference to other fellow-searchers interested in this area of study.

II. Research Methodology

In this part, the researcher explains the methodology and the procedure used in the study and describes each step separately. The researcher describes the setting, the sample of the study, the tools, the data collection and the data analysis procedures.

The Setting

This study is conducted in Mokwa, Niger State, Nigeria. The population of the study covers all the seventeen public secondary schools for both boys and girls in the region. Eight of the schools in the Municipality have undergone renovation and some of them are even completely knocked down and rebuilt according to the standard set by the Ministry of Education for school buildings. The rest of the schools in the area remain in their relatively poor conditions waiting for their turn to be renovated in the future. The study is carried out on a sample of students from three renovated and three non-renovated secondary schools during the first term of the academic year 2017-18. The first term normally starts in July and ends in October. Students study their normal English language syllabus under two different classroom environments.

The Sample and Sampling Procedure

Stratified sampling technique is used to select the sample for this study from a total population of about 1000 first year students. Accordingly, the population above is classified into two categories representing those who study their English course under relatively poor classroom environment and those who study the same course under fairly favourable classroom environment. From these two distinguished categories two groups are selected to represent the sample of the study. The selected sample formed the Control group which includes 100 students studying in three classes under relatively poor learning environment, and the Experimental group students who study in the newly renovated schools. The

Experimental group includes 100 students studying in three well designed and renovated classes. The level of achievement of the Experimental and the Control group who study under different classroom environments is obtained through an achievement test given at the end of the term to both groups.

Research Tools

This experimental study is intended to collect required data through a variety of tools. However, the necessary information is initially obtained through close observations of classroom environment. Furthermore, information is gathered through interviews and conversations with the schools' teachers and administrators, and finally but most importantly, through students' scores in English in an achievement test designed and validated by a group of English language experts. The scores of the students in the Experimental and those in the Control group in the achievement test will be compared to check the effect of classroom environment on the level of students' achievement in English.

Procedure

Before the study begins, the researcher has arranged several visits to the study area which includes both the renovated and the non-renovated schools and observes the classrooms very closely to record all aspects of the classrooms' environment. These aspects cover the seats organization, the classroom ventilation, room temperature, size of the classroom, the learning resources and teaching aids, level of cleanliness, and the type of furniture the student's use. The information and data obtained have clearly confirmed that the environments of the classrooms of

the renovated and non-renovated schools are quite different. Renovated schools, from which the Experimental group is purposively selected, have more favourable classroom environment compared to classrooms earmarked for the Control group.

The researcher has also met with and interviewed the target schools administrators and the English language teachers to inform them about the research and its objectives and also to obtain their consent and their support for conducting the study. During these interviews, the administrators and teachers have provided some valuable advice and information relevant to the issue under investigation and this will be highlighted in the discussion section.

The classrooms for the Experimental group in addition to their being fully renovated, they are equipped with various teaching facilities, i.e., proper arrangement of desks & seats for students, teacher tables, well painted walls, whiteboards, charts, models, proper lighting & ventilation, ceiling fans, continuous power supply, and cupboards. In addition to these facilities, the rooms are quite spacious and they are kept clean most of the time.

On the other hand, the classrooms for the Control group have relatively poor environment and lack most of the experimental rooms' facilities. These classrooms mainly have blackboards and benches. The rooms are smaller in size as compared to the rooms of Experimental group. The lighting and ventilation are not quite enough. However, both groups are taught the same material through usual method by experienced English language teachers.

The experiment has started with a placement test given to both groups in the first week of the experimental term with the intention of checking the subjects' initial level of performance in English before experiment. Results of this test indicate no significant difference between the two groups' level of English. In fact, the subjects of both groups have just joined the secondary school after completing a six-year course of primary education.

The experiment has continued for the whole term during which the students in both groups have studied six units of English Language syllabus intended for primary and secondary school students. After the completion of the syllabus, the researcher has administered an achievement test to examine the level of performance of the both groups to check the effect of the classroom environment on students' performance in English.

The achievement test is constructed and validated by the researcher in collaboration with the English language teachers involved in the experiment. The test aims to measure the students' achievement according to the content and objectives of the first six units of the subject taught to the two groups during the experimental period. The test consists of fifty multiple choice items covering the five language skills, i.e., listening, reading, writing, vocabulary, and grammar.

Data Analysis

The students' scores in the achievement test are tabulated and prepared for analyses. The researcher has used Microsoft Office, Excel version 2013, for data entry and analysis. The statistical tests used in this case involve the means as a test of central tendency to compare the scores of the Control and the Experimental group in the achievement test. A t-test is also used to show if the difference between the two groups is significant at ($\alpha=0.05$).

III. Findings

The results of the Control and the Experimental Group students in the achievement test given at the end of the term are tabulated, analyzed and compared. These results are shown in the table and graph below

Table 1: Achievement test result showing the Experimental and Control group

Skill	Experimental	Control
Listening	65	50
Reading	73	53
Vocabulary	76	50
Writing	60	49
Grammar	50	51
Mean	65	50.6

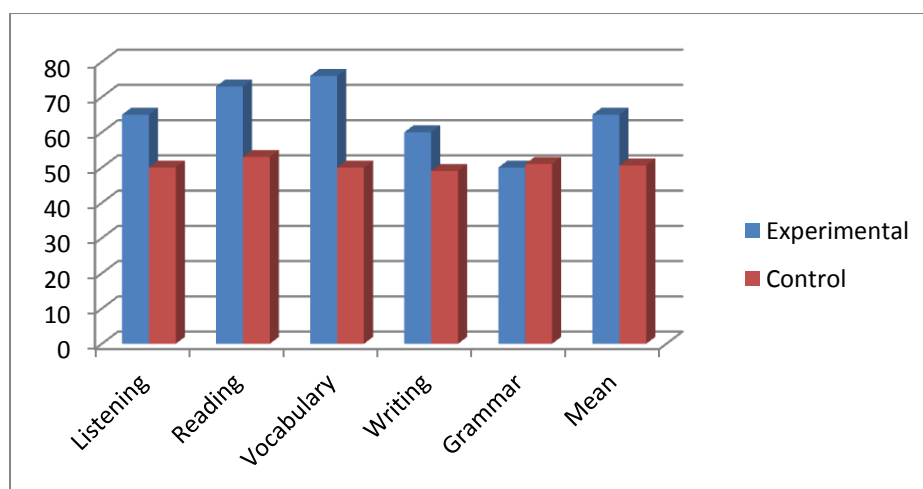


Fig. 1: Achievement test result comparing the two variables

The above table and graph show the mean, scores of the two groups in the five skills. It is clear from the above table that the mean scores of the Experimental group students are higher than the mean scores of students in the Control group. The students in the Experimental group score better than their counterparts in the Control group in four of the five language skills. More specifically, it is found that the mean score of the Experimental group in listening is 66 % compared to 50% for the Control group. In the reading skill, the Experimental group score 73% compared to 53% for the Control group. In vocabulary, the Experimental group students score 76 % compared to 50% by the Control group. The Experimental group students have also done better in writing as they score 60% compared to only 49% for the Control group. Surprisingly, the two groups tend to have similar grades in grammar. Indeed, the Control group has done slightly better than their counterpart in the Experimental group. The Control group scores 51% whereas the Experimental group scores only 50%. However, in the overall score of students in the five skills, the Experimental group has clearly surpassed the Control group. The average score of the Experimental group in all skills is found to be 65% compared to only 50.6 % for the Control group. Obviously, there is a notable difference between the averages of scores of the two groups in most language skills in favor of the Experimental group, but whether this difference is significant or not, a t-test is done and the result is shown in table 2 below;

Table 2: t-value of difference between the control and experimental groups

Group	N	Minimum score	Maximum score	Mean	Std. deviation	t	Sig. 2 tailed	Result
Control	100	16	75	50.6	10.829	12.6	0	Significant
Experimental	100	45	87	65	9.03			

The t- value is found to be 12.6 which indicate that the difference between the two groups' level of performance in English is quite significant at the level of (0.00). This result leads the researcher to conclude that The Experimental group students have done significantly better in English and perhaps in other school subjects because they study in more favorable classroom environments. This result can be cited to answer the main question of the study which inquires about the impact of classroom environment on students' achievement in English. The same result can be quoted to verify the main hypothesis of the study which assumes that provision of adequate Classroom facilities will have a positive influence on the achievement of Sudanese secondary school students in English.

IV. Discussion

During the research period, the researcher has arranged several observation visits covering the newly renovated schools and those that are not yet renovated. The aim of these observation visits is to check the suitability of classroom atmosphere, adequacy and appropriateness of seating facilities, textbooks availability, libraries, classroom cleanliness, classroom size, and availability of teaching aids and technology. The researcher has come to realize that there are two distinct classroom environments; those in the newly renovated schools and those in non-renovated schools. It is hypnotized that these different classroom environments will reflect directly on students' performance and this is exactly what has happened in to-to. It is revealed that the Experimental group students who study in favourable classrooms environment have done significantly better in the English language test than their counterparts in the Control group who study in less adequate classrooms environments.

Indeed, during the researcher's visits to various schools within the study zone, he finds most of classrooms in non-renovated schools to have small windows and zinc roofs. Surely, there are no proper ventilation or even fans to regulate temperature. One of the English language teacher's complains that "*After eleven o'clock AM, the classrooms become extremely hot and the temperature rises to above 43 degrees*". Unfortunately, most of the English language lessons are normally scheduled after eleven when it becomes extremely hot. Another English language teacher adds, "*Students in these classes will have problems in acquiring the language skills and the concepts being taught. Their mood is disrupted and they become less motivated and less ready for learning.*" One of the schools' administrators admits that "*Classroom high temperature influences both students and teachers negatively and reduces their capacity for effective learning and teaching.*" In fact, this has been the case of the Control group whose performance seems to be negatively influenced by unfavourable classroom conditions.

On the other hand, the researcher is really impressed when he has visited three newly renovated schools. These schools have concrete ceilings instead of zinc, wide windows with glasses, and fans. They are well ventilated and the level of temperature is quite durable even during midday hours. Obviously, this favourable atmosphere reflects positively on students' performance. Whereas there is a serious attempt by schools administration to provide appropriate and suitable chairs and tables for the students, the non-renovated schools are still using benches and desks. One teacher complains that "*The furniture arrangement in the classrooms makes it difficult for us to move around the class to check students' work, as in most cases the furniture occupies the entire classroom limited space.*" Another teacher says that the seating arrangement doesn't allow students to practice cooperative learning which requires more flexible seating system.

In the renovated schools; however, the researcher has observed that a separate seat and a desk are commonly allocated for each student. One of the administrators has expressed his satisfaction with the seating arrangement saying "*The seats are arranged in these classrooms in a way to give space for practicing innovative teaching*". Although the administrator does not explain what he means by *innovative* teaching which is practiced in some of these renovated schools seems to have positive effects on the Experimental group students' achievement in English.

At another level, the researcher has observed that in many schools both renovated and non-renovated, the students, sometimes, share textbooks. One administrator says "*Shortage of textbooks have very negative impact on students' performance as it does not allow them to focus on what they are studying*". In many cases, the researcher has noticed that teachers write the lesson or part of it on the board for the students to copy, and this consumes a lot of teachers' and students' time. Furthermore, some students cannot find textbooks for revision or preparation of their lessons at home. This issue affects students in both groups' performance negatively (Nwangwu, 1990).

Furthermore, it was found that teaching aids are given special attention. In fact, teaching aids help in stimulating students' physical, mental, social, emotional, moral and spiritual developments. Manipulation of audio-visual aids in language teaching activities helps the students to use most of their senses during learning (Umar, 2015). This makes it easier for them to understand concepts that would have otherwise been difficult to understand (Gichuba *et al*, 2009). Actually, in this age of technological revolution, computer and other electronic devices have become instrumental in language teaching and learning activities. Language laboratories are now an essential part of modern schools and Computer

Assisted Language Learning (CALL) is now rated as the most popular and effective language teaching approach (Hassan, 2016).

Unfortunately, it is widely observed that the majority of the schools lack these essential learning aids and facilities. Those which are in use now are obsolete and out-dated. In fact, **Talk and chalk** are still dominating the scene making the language learning process dull, frustrating and fruitless.

V. Conclusion

This study investigated the influence of classroom environment on the achievement of secondary school students in English. It is an experimental study conducted in Mokwa, Mokwa Local Government Area of Niger State, Nigeria. The sample of the study is formed of two groups; the Experimental and the Control group. The Experimental group students take their English lessons and other subjects in newly renovated classrooms equipped with the necessary facilities that make the learning environment quite favourable. Conversely, the Control group students take their lessons in non-renovated schools under inadequate classroom conditions. Three research questions are formulated to guide the study. These questions sought to establish the effect of instructional resources and classroom environment on the performance of secondary school students in English. Students' level of achievement in English is checked through an achievement test given to both Experimental and Control group at the end of the first term of the academic year 2017-18. The test covers the first six units of the subject which is taught to all students in secondary schools.

The results of the achievement test administered to students indicate that the Experimental group students who study in schools with favourable classroom environment have done better in the English test than the Control group students i.e., those who study in schools with unfavourable classroom environment. Students in schools with favourable classroom environments obtained a mean score of 65% while those of schools with unfavourable conditions have a mean score of 50.6%. A t-test reveals a significant difference in the mean scores between the two groups in favour of the Experimental one. From these results, one can easily conclude that classroom environment determines the level of student's performance in English.

Conversely, unfavourable conditions which include small classroom size, inappropriate ventilation, high classroom temperature, shortage of textbooks, and lack of advanced technical teaching aids, coupled with inappropriate desk and seating arrangement seem to have a negative impact on the Control group students' achievement in English.

VI. Recommendations

Initially, this study has proved that classroom environment plays a crucial role in deciding students' academic achievement; therefore, it is recommended that classroom environment should be carefully structured and all necessary facilities should be provided to each school on priority basis.

It necessary then that all classrooms should be fully equipped with instructional aids, supplied with maps, charts, posters and murals etc., as these elements are likely to increase interest, attentiveness and the motivational level of the students.

With respect to classroom size, it is revealed that suitable class size stands as an essential factor that determines students' success in learning different school subjects. This fact makes it important that the government and the **Reform Project** initiators should enforce the recommended standard size in constructing classrooms throughout the country. This should be particularly stressed when building new

schools as part of **Niger State Reform Project** initiated by the Abubakar Sani Bello administration. The government should acquire sufficient funds and land for building schools in suitable locations and stress that the number of students in each class should not exceed the specified limit.

Furthermore, classrooms should be designed in such a way that allows various technologies to be used in classrooms. Cupboards and shelves are instrumental and need to be installed in each classroom for keeping various accessories and stationery. It is also important that proper lighting system should be ensured so that the teaching learning process takes place in a well-lighted, bright atmosphere.

In the drier season when it really gets very hot, air coolers or at least ceiling fans should be installed to moderate classrooms atmosphere. It is known that unfavorable classroom temperature affects students' mood and performance negatively.

Another important recommendation is connected to textbook availability. Indeed, one of the main problems arising from this research is the low student-textbook ratio. The government is urgently requested to provide enough textbooks to all students and ensures that each student has got his own copy. It is widely documented that there is a positive correlation between students' performance and the level of availability of textbooks.

The last but perhaps the most important recommendation to be made is the provision of audio-visual aids and other teaching devices in classrooms. Audio-visual aids should be made available in all classrooms as these aids play a crucial role in strengthening students' motivation and hence their academic achievement.

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