

**EFFECTS OF MOTIVATION PACKAGE ON SECONDARY SCHOOL STUDENTS
ACADEMIC ACHIEVEMENT IN GEOGRAPHY IN JOS NORTH, PLATEAU STATE**

Zainab Mohammed¹, Dorah N. Damar Ph.D², Christian Y. Oche Ph.D³ and Yakubu G.Kajang Ph.D⁴

^{1,2,4}Science and Technology Education Department University of Jos

³Geography and Planning Department University of Jos

ABSTRACT

The significance of Geography as a school subject cannot be over emphasized. Geography is a subject that teaches the interaction of man with his physical environment. Geography is regarded as an important vehicle through which environmental education can be taught, it deals with human-environment relationships and it is interdisciplinary and overlapping between natural sciences, social sciences and humanities. This study examined the effects of motivation package on secondary school students' academic achievement in geography in Jos North, Plateau State, Nigeria. This research used quasi- experimental research with non-equivalent groups design. Subject of the research is all SSII Geography students of public and private senior secondary schools in Jos North Local Government Area. The stratified sampling and simple random sampling technique was employed for the study. The sample included 43 geography SS2 students from intact classes of the four sampled schools. The experimental group was made up of 8 males and 12 females while the control group was made up of 11 males and 12 females. Therefore, there are 20 and 23 students in the experimental and control group respectively. The Environmental Hazards Geography Students Achievement Test (EHGSAT) instrument was used for data collection. The t-test of independent sample was used to test hypotheses 1 and 2, while Analysis of Covariance (ANCOVA) was used to test 3 and 4 respectively. The statistical package for social sciences (SPSS) version 23 was used for the analysis. The findings show that there is no significant difference between the experimental and control group pre-test geography academic achievement mean scores, there is significant difference between the experimental and control group post-test geography academic achievement mean score, there is significant difference between private and public school students on post-test geography academic achievement mean score and there is no significant difference between boys and girls on post-test geography academic achievement mean score. The study recommended training and re-training of geography teachers through series of workshops, seminars and symposia on Environmental Motivation Package in senior secondary schools among other recommendations were made.

KEYWORDS: Academic Achievement, Gender, Motivation Package, School type

INTRODUCTION

Education, which is a multidimensional process, continues throughout life. While guiding and directing our learning activities in educational institutions are expressed as teaching, permanent behavior change is expressed as learning, which represents the last stage of teaching (Demirel, 2009). It can be said that students do not have similar attitudes to every subject they are taught in the

learning environment. It has been noted that some students who do not care about their lessons prefer to escape from the learning environment rather than produce solutions to the problems they encounter. One of the most important reasons behind the emergence of this difference among students is motivation. The concept of motivation or the act of motivation can be defined in terms of a person's direction towards certain behaviours and what prompts a person to continue these behaviours (Akbaba, 2006). Put another way, motivation is the power that provides guidance and energy in order to achieve a specific goal. Motivation represents an extremely important function in the emergence of behaviour and learning (Yüksel, 2011).

The significance of Geography as a school subject cannot be over emphasized. Geography is a subject that teaches the interaction of man with his physical environment. It is useful as a school subject that a potential student of tertiary institution can combine with others to pursue professional and academic disciplines. Geography is regarded as an important vehicle through which environmental education can be taught, it deals with human-environment relationships and it is interdisciplinary and overlapping between natural sciences, social sciences and humanities (Holloway, Rice & Valentine, 2003). Its interdisciplinary nature can provide a holistic approach to teaching environmental education (EE) and Environmental Sustainable Development (ESD) as stipulated by UNESCO (2009). While extensive nationwide research has not been adequately carried out on students' views about geography, there is evidence that students appreciate the value of geography for everyday living. Nevertheless, as an academic subject, geography lacks popularity among secondary students. Research on students' attitude towards geography has shown that few students write on geography in school certificate examinations. Reasons which students have for disliking geography to Okpala (2015) include: (1) the wide scope of the subject; (2) geography is not regarded as a scientific subject in the Nigerian educational system; (3) poor results in school certificate geography; (4) geography is unrelated to their future career; and (5) poor teaching. Concerning the status and career prospects, in the Nigerian secondary school geography is viewed neither as a science, nor as a profession. The concern regarding the wide scope of the discipline results from the attempt to include far too many current and environmental issues within the curriculum and all these reasons can affect students' achievement in the subject.

Achievement is the measure of students' learning and acquisition of certain skills at the end of teaching and learning activities. The methods of teaching used by geography teachers in teaching some geography concepts might be inappropriate, which can lead to low achievement in students. However, there might also be some forms of disparities in achievement based on gender and school type in geography specifically in environmental problem topics. It is known that more often than not, girls are made to carry out most of the sweeping and cleaning activities in schools, gender is the range of characteristics that pertains to male and female that also differentiate them, some cultures have specific gender roles that can be considered distinct for males and females. In this light other say that female has consistently shown to have higher environmental conscious attitudes than male (Adeolu, Enesi & Adeolu, 2014).

The argument about the difference in academic achievement between private and public schools has not been resolved, Sabitu, Babatunde and Oluwole (2012) conducted a study in South-western Nigeria and the findings revealed that there were no significant difference in public and private schools. Methodological issues, particularly the issue of purposive sampling method and absence of control for extraneous variable are most likely to have affected the result of study, also teacher's quality and school location are factors that can affect academic achievement but were not controlled in the study.

According to Nsa (2012) and Daniel (2014) in their separate studies explained that better achievement of student in private school was as a result of availability and usage of instructional materials by private school teachers. These facilities are needed for teaching and learning process without which teaching cannot take place effectively.

The research conducted in different areas revealed that motivation and motivational activities have positive effects on learning (Batdı & Semerci, 2016; Noland & Richards, 2014; Göğüş & Yetke, 2014; Singh, Kleeman, & Van-Bergen, 2013; Moos & Honkomp, 2011; Aydın, 2009; Dörnyei, 2000). When the importance of motivation towards learning is taken into consideration, with a view to achieving success in the teaching of geography, it is necessary to determine the levels of motivation among students towards learning this subject and to act in this regard. It is inevitable that, when students lose their interest in geography courses, the subject will become difficult to understand and become boring too. In order to overcome these problems, it is necessary for the student to be active in the learning process and be motivated to participate in the class (Aydın, 2010). The designed motivation package consist of talk shows by environmental professionals, use of incentives, documentaries and film shows on environmental problems, to give students a clearer and an interesting view of some environmental problems and how they can be controlled. It is against this background that this study will investigate the effects of solid waste disposal motivation package on secondary school student's academic achievements in geography in Jos South, Plateau State.

Objective of the study

The purpose of this study is to determine the effects of motivation package on academic achievement of secondary school geography students in Jos North, Plateau state Nigeria. Specifically, the study is expected to achieve the following objectives to:

Find out the pre-test geography academic achievement mean score of the experimental and control group.

Find out the post-test geography academic achievement mean score of the experimental and control group.

Find out the post-test geography academic achievement mean score of private and public schools in the experimental group.

Find out the post-test geography achievement mean score of boys and girls in the experimental group.

Research Questions

To guide the study, the following research questions were posed.

What is the pre-test geography academic achievement mean scores of the experimental and control groups?

What is the post-test geography academic achievement mean scores of the experimental and control groups?

What is the post-test geography academic achievement mean scores of private and public schools in the experimental group?

What is the post-test geography academic achievement means scores of boys and girls in the experimental group?

Hypothesis

The following null hypotheses were tested at 0.05 level of significance.

There is no significant difference between the experimental and control group pre-test geography academic achievement means scores.

There is no significant difference between the experimental and control group post-test geography academic achievement means scores.

There is no significant difference between private and public school students on post-test geography academic achievement mean scores.

There is no significant difference between boys and girls on post-test geography academic achievement mean scores.

Empirical review

Many researchers have studied motivation and geography academic achievement; some of their studies were reviewed below;

Wijayanto, Utaya&Komang (2017) examined the effect of active debate method assisted by iSpring Suite on motivation and Geography learning outcome. This is a quasi-experimental research with quantitative to describe research results. Research subject is students in XI IS 1 class as the experimental group and students in XI IS 2 class as the control group in Senior High School 1 Mayong, Jepara Residence, Indonesia. Data of motivation level was collected by questionnaire, meanwhile the cognitive learning outcome data was collected by test. Based on research results it was known that: (1) there is an effect of active debate method assisted by iSpring Suite on Geography learning motivation, and (2) there is an effect of active debate method assisted by iSpring Suite on Geography learning outcome.

Filgona and Shababa (2017) investigated the Effect of Gender on Senior Secondary School Students' Academic Achievement in Geography when Mastery Learning Strategy and Conventional Method are used for instruction. The quasi-experimental non-randomized pre-test, post-test control group design was used. The study also employed the multi-stage random sampling technique at four levels to select 207 (120 Male and 87 Female) senior secondary school two (SS II) students offering Geography from six intact classes in six co-educational secondary schools in Ganye Educational Zone in Nigeria. A 40-item Geography Achievement Test (GAT) constructed by the researcher and validated by experts in Geography education was used to obtain data. After pilot testing the instrument using 89 students from two intact classes, the data obtained was analyzed using Pearson product moment correlation coefficient statistic. A reliability index of 0.78 was obtained. Data collected were analyzed using descriptive statistics of Mean, independent t-Test and Analysis of Covariance (ANCOVA). The study revealed that Female students exposed to learning Geography through Mastery Learning Strategy performed better than their Male counterparts. A significant interaction effect of treatment and gender on students' achievement in Geography was also observed. It was recommended that Geography teachers should re-assess their classroom instructional strategies used in teaching and adopt that which will give the students equal opportunities to excel in Geography.

Tahsin (2017) examined the levels of motivation among high school social science students towards learning geography. The study group consisted of 397 students from different classes at Aksaray Ahmet CevdetPaşa High School in the College of Social Science. The research was carried out with a scanning model, with data obtained using the Scale for Motivation Towards Learning Geography. In the analysis of the data, the t-test and the one-way analysis of variance (ANOVA) were used. As a result of the research, the levels of motivation among social science students towards learning geography were found to be moderate. From the analysis of the aforementioned scale's subfactors, those related to the interest of students and information acquisition were found to be 'undecided', while the subfactors related to self-confidence and performance were found to be 'in agreement'. It was determined that the level of motivation towards learning geography reported in the findings, with regard to the gender variable, showed a significant difference among male students. In addition, it was indicated that the motivation levels of male students were higher for the subfactors of interest and self-confidence than those of female students. In terms of the subfactors of information acquisition and performance, no significant changes were found in the motivation levels among both male and female students. Analyses based on class level demonstrated that the average scores of the students differ in this context, but that this difference was found to be statistically significant for 11th grade students for the subfactor of self-confidence.

Warsani&Ruhimat (2016) analyze the effect of interest and motivation to learn in learning geography to spatial intelligence. This study used a quantitative approach with survey method. The study populations were 96 students of class XII social program Private senior high school in Kuantan Singingi Regency. Questionnaires were used to collect the data. Data were analyzed using normality

test, homogeneity and path analysis by using SPSS version 20.0. The research results showed that there is a significant effect of the learning interest and the learning motivation in learning geography toward the spatial intelligence; there is a significant effect of the learning interest in learning geography toward the spatial intelligence, and 3) there is a significant effect of the learning motivation in learning geography to spatial intelligence of senior high schools' students in Kuantan Singingi Regency.

Harry (2016) examined the effects of school type on academic performance-evidence from the secondary entrance assessment exam in Trinidad. There is a common perception that private schools achieve higher than public schools. Stratified random sampling was employed to sample 106 schools from a population of 437. Multiple-linear Regression (MLR) Analysis was used. However, recent studies have found that the performance disparity between school types can be accounted for by differences in the population of students attending the different types of schools. Using raw data from the 2015 Secondary Entrance Assessment exam, this paper estimates the effect on academic achievement in Trinidad as a result of attending privately managed public primary schools (assisted schools) relative to traditional public schools (government schools). Controlling for demographic, personnel and administrative differences, the analysis finds no meaningful difference in academic achievement between students in assisted schools versus students in government schools.

Alimi, Ehinola and Alabi (2012) investigated the influence of school types and facilities on students' academic performance in Ondo State. It was designed to find out whether facilities and students' academic performance are related in private and public secondary schools respectively. Descriptive survey design was used. Proportionate random sampling technique was used to select 50 schools in Ondo state. Two set of research instruments named School Facility Descriptive and Students Academic Performance Questionnaire (SFDAPQ) for principals; and School Facility Descriptive Questionnaire (SFDQ) for the teachers were used for the study. T- test was used to analyze the data. All hypotheses were tested at a significant level of 0.05. The study revealed a significant difference in facilities available in public and private schools in Ondo State. It however revealed no significant difference in academic performance of students in the two types of secondary schools. Suggestions for the procurement of more facilities in public secondary schools were made in order to enhance students' academic performance.

Theoretical Framework

This study shall be anchored on the Theory of Planned Behaviour (TPB), proposed by Fishbein and Ajzen (1980). The TPB theory states that, what an individual does is determined by personal motivation which is determined by social support, and perceived behavioural control. Attitude, as a framework is not only good for understanding, explaining and predicting behaviours, but also to provide a useful guide for designing intervention strategies to change or maintain behaviour, which in turn can positively affect achievement. The theory is based on an assumption that individual behavioural intentions are directly related to their attitudes and attitude towards a subject can affect

achievement largely, the ease or difficulty of performing the behaviour of interest is key to an overall achievement, when a student is effectively motivated his perceived behaviour can change towards a particular subject. The Theory of Planned Behaviour views a person's intention to perform (or not perform) as the immediate determinant of the action. This behavioural intention, in turn, has two determinants. One is the attitude towards the behaviour a person who believes that performing a given behaviour will lead to mostly positive outcomes will hold a favourable attitude toward performing the behaviour. The other is the subjective norm a person believes that most referents with whom she or he is motivated to comply think she/he should perform the behaviour will perceive the social pressure to do so. The beliefs that underlie a person's attitude toward the behaviour are termed behavioural beliefs, and those that underlie the subjective norm are termed normative beliefs (Ajzen & Fishbein, 1980).

This theory is related to the study based on the fact that it allows for a better evaluation of human behaviour when participatory decisions are voluntary and under an individual control. A desired behavior is predicted by a person's value of what she or he expects to be the outcome of the behavior, for this study the desired behavior will be students' intention to develop a positive attitude that would bring about improved academic achievement in geography. The motivation package designed would enable students develop a positive attitude towards the subject through the use of varied teaching aids, documentary, film shows, incentives and professional talks to stimulate students' interest in the subject.

The introduction of motivation package may help to modify the attitude of geography students to become more interested in practical behavioural tendencies that will improve their academic achievement in geography in their communities and schools. The theory provides a platform for proper motivation within the school, by allowing the researcher to carefully plan the intervention based on key focus in geography.

METHOD AND PROCEDURE

Research Design

This research was quasi- experimental research with non-equivalent groups design. The data collected was quantitative data to describe the research results. This design is appropriate because it will help evaluate the gain scores of the two groups. The independent variable is the motivation package while the dependent variable is geography academic achievement, also the fact that random assignment of subjects to experimental and control group are not possible, in this case intact classes or preexisting groups are used to justify the use of this design.

Populations and sampling techniques

Subject of the research is all SSII Geography students of public and private senior secondary schools in Jos South Local Government Area. The stratified sampling and simple random sampling technique was employed for the study. The sample includes 43 geography SS2 students from intact classes of

the four sampled schools (2 private schools and 2 public schools). The experimental group was made up of 8 males and 12 females while the control group was made up of 11 males and 12 females. Therefore, there are 20 and 23 students in the experimental and control group respectively.

Instruments/ Procedure

Environmental Hazards Geography Students Achievement Test (EHGSAT) instrument used for data collection. The EHGSAT consisted 50 multiple choice object test items adapted from WAEC past questions. The reliability of EHGSAT was established by test re- test method which generated a correlation coefficient of 0.841, hence it is reliable. Geography academic achievement outcome data was described to know the mean score of each class (experimental and control group). Prior to the commencement of the experiment, EHGSAT was administered to experimental and control groups. Two days after the pre- test, the experimental group were taught geography using the motivational package and the control group were not exposed to the motivational package. At the end of the six weeks teaching EHGSAT, was administered immediately to experimental and control groups. The response of students were collected back on the spot and scored by the researcher and research assistant.

Method of data Analysis

Research questions 1, 2, 3 and 4 were answered using descriptive statistics, like mean and standard deviation. To test the hypothesis, t-test of independent sample was used to test hypotheses 1 and 2, while Analysis of Covariance (ANCOVA) was used to test 3 and 4 respectively. The statistical package for social sciences (SPSS) version 23 was used for the analysis.

Results Presentations and interpretations

Research question one: What is the pre-test geography academic achievement mean scores of the experimental and control group?

Table 1: Pre-Test and Post-test academic achievement mean scores of the experimental and control groups

Group	N	\bar{X}	SD	Mean Difference
Experimental	20	46.15	7.809	0.89
ControlS	23	47.04	8.48	

Table 1 revealed the pre- test student achievement mean scores of experimental and control groups. The result for experimental group yielded a mean score (\bar{X} =46.15, SD=7.809) and that of the control group yielded a mean score of (\bar{X} =47.04, SD=8.48). The pre-test student achievement mean scores in both experimental and control groups generally indicated low achievement with a low mean difference (0.89). This could be because both groups were not exposed to treatment.

Research question two: What is the post-test geography academic achievement mean scores of the experimental and control group?

Table 2: Post-test academic achievement mean scores of the experimental and control groups

Group	N	\bar{X}	SD	Mean Difference
Experimental	20	53.40	7.387	4.83
Control	23	48.83	8.101	

Table 2 further revealed the post- test student’s achievement mean scores of experimental and control groups. The result for experimental group yielded a mean score (\bar{X} =53.40, SD=7.387) and that of the control group yielded a mean score of (\bar{X} =48.57, SD=8.101). The post-test student’s achievement mean scores in both experimental and control groups generally indicated high achievement with a high mean difference (4.83). This could be because the experimental groups were exposed to treatment.

Research question three: What is the post-test geography academic achievement mean scores of private and public schools in the experimental group?

Table 3: The post-test geography academic achievement mean scores of private and public schools in the experimental group.

Group	School Type	N	\bar{X}	SD	Mean Difference
Experimental	Public	8	49.13	5.194	2.12
	Private	12	51.25	8.667	

The result in table 3 indicated that the academic achievement mean scores of public schools in experimental group is $\bar{X}=49.13$ and private schools $\bar{X}=51.25$ with the SD 5.194 and 8.667 respectively. These results show that private school students had higher academic achievement mean scores in geography than public school students in the experimental group.

Research question four: What is the post-test geography academic achievement mean scores of boys and girls in the experimental group?

Table 4: The post-test geography academic achievement mean scores of boys and girls in the experimental group

Group	Gender	N	\bar{X}	SD	Mean Difference
Experimental	Male	8	49.13	6.285	4.62
	Female	12	53.75	9.558	

The result in table 4 indicated that the geography academic achievement mean scores of male students in experimental group is $\bar{X}=49.13$ and female students $\bar{X}=53.75$ with the SD 6.285 and 9.558 respectively. These results show that female students had better academic achievement mean scores in geography than male students in both the experimental group.

Hypothesis One: There is no significant difference between the experimental and control group pre-test geography academic achievements mean scores

Table 5: Results of t-test analysis for difference in the pre-test academic achievement mean scores of the experimental and control groups

Group	N	\bar{X}	SD	Df	T	p-value
Experimental	20	24.30	7.685	41	0.830	0.412
Control	23	25.83	7.190			

Table 5 revealed the t- test for independent sample on pre-test solid waste achievement mean scores of Experimental and Control Groups. From the table, it shows that the mean value for experimental group and control group were (\bar{X} =46.15, SD=7.809) and (\bar{X} =47.04, SD=8.48) respectively. The t statistics was 1.103, since the p-value (0.276) is greater than the 0.05 level of significance, the null hypothesis was retained. We concluded that there is no significant difference between the experimental and control group pre-test geography academic achievement mean scores. It indicated that the pretest mean scores of Experimental group was not statistically significant from the pre-test geography academic achievement mean score of control group. The two groups were thus considered to be equivalent before the commencement of treatment.

Hypothesis two: There is no significant difference between the experimental and control group post-test geography academic achievement means scores

Table 6: Results of t-test analysis for difference in the post-test academic achievement mean scores of the experimental and control groups

Group	N	\bar{X}	SD	Df	T	p-value
Experimental	20	53.40	7.387	41	2.27	0.034
Control	23	48.57	8.101			

Table 6 revealed the t- test for independent sample on post-test geography academic achievement mean scores of Experimental and Control Groups. From the table, it shows that the mean value for experimental group and control group were (\bar{X} =53.40, SD=7.387) and (\bar{X} =48.57, SD=8.101) respectively. The t statistics was 2.27, since the p-value (0.034) is less than the 0.05 level of significance, the null hypothesis is rejected. It implies that there is significant difference between the experimental and control group post-test geography academic achievement mean scores. It indicated that the post-test mean scores of Experimental group was statistically significant from the post-test geography academic achievement mean scores of control group. This difference was because of treatment package used for the experimental group resulting to improvement in their mean scores.

Hypothesis three: There is no significant difference between private and public school students on post-test geography academic achievement mean scores

Table 7: ANCOVA Summary Results of Difference in the Effect of Motivational Package on geography academic achievement mean scores in public and private Schools

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	461.841 ^a	2	230.920	4.002	.026
Intercept	4059.662	1	4059.662	70.357	.000
EGHSAT	328.471	1	328.471	5.693	.022
SCHTYPALL	137.861	1	137.861	5.389	.003
Error	2308.020	40	57.700		
Total	94403.000	43			
Corrected Total	2769.860	42			

a. R Squared = .167 (Adjusted R Squared = .125)

The analysis of variance (ANCOVA) was conducted in table 7 to determine if there are significant effects of treatment package on students' geography academic achievement mean scores in public and private schools. (public and private) yielded mean of (=39.48, SD=6.56) and (=49.31, SD=6.56) respectively. The result in table 18 further shows that $F(1,40) = 5.389$. $P=0.003$. Since the p value of 0.003 is less than 0.05 level of significance, the null hypothesis is rejected, indicating that there is significant difference between private and public school students on post-test geography academic achievement mean scores.

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Hypothesis four: There is no significant difference between boys and girls on post-test geography academic achievement mean scores

Table 8: ANCOVA Summary Results of Difference in the Effect of Motivational Package on geography academic achievement mean scores of boys and girls

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	304.918 ^a	2	152.459	2.758	.076
Intercept	5198.050	1	5198.050	94.017	.000
EHGSATALL	304.833	1	304.833	5.513	.024
GENDERALL	10.577	1	10.577	.191	.664
Error	2211.547	40	55.289		
Total	107531.000	43			
Corrected Total	2516.465	42			

a. R Squared = .121 (Adjusted R Squared = .077)

The analysis of variance (ANCOVA) was conducted in table 7 to determine if there is a significant effect of treatment package on boys and girls on post-test geography academic achievement mean scores. The effect of gender (boys and girls) yielded mean of (=49.37, SD=7.81) and (=49.46, SD=7.85) respectively. The result in table 18 further shows that $F(1,40) = 0.191$. $P = 0.664$. Since the p value of 0.664 is greater than 0.05 level of significance, the null hypothesis is accepted, indicating that there is no significant difference between boys and girls on post-test geography academic achievement mean scores.

DISCUSSION OF FINDINGS

The first finding revealed that there is no significance difference between the experimental and control group pre-test geography academic achievement mean scores. This implies that the pretest mean scores of Experimental group was not statistically significant from the pre-test geography academic achievement mean scores of control group. The two groups were thus considered to be equivalent before the commencement of treatment. This finding agrees with several other studies, such as that of Harry (2016) who concluded that no meaningful difference in academic achievement between students in assisted schools versus students in government schools.

The second finding indicated that there is significant difference between the experimental and control group post-test geography academic achievement mean scores. The post-test mean scores of

Experimental group was statistically significant from the post-test geography academic achievement mean scores of control group. This difference was because of treatment package used for the experiment group resulting to improvement in their mean scores. This finding is in conformity with many findings reported by researchers such as Warsani & Ruhimat (2016) who concluded that there is a significant effect of the learning interest and the learning motivation in learning geography toward the spatial intelligence.

The third result shows that there is significant difference between private and public school students on post-test geography academic achievement mean scores. This implies that private school's academic achievement is higher than that of public schools in geography as indicated in their various mean scores. This finding is in conformity with many findings reported by researchers like Alimi, Ehinola and Alabi (2012) and Harry (2016). Whose studies revealed a significant difference in facilities available in public and private schools in Ondo State. It however revealed no significant difference in academic performance of students in the two types of secondary schools.

The fourth result indicates that there is no significant difference between boys and girls on post-test geography academic achievement mean scores. The finding does not corroborate findings from other similar studies above. Such as Filgona and Shababa (2017) who concluded that Female students exposed to learning Geography through Mastery Learning Strategy performed better than their Male counterparts. A significant interaction effect of treatment and gender on students' achievement in Geography was also observed.

CONCLUSION

Based on the research results it could be concluded that:

There is no significant difference between the experimental and control group pre-test geography academic achievement mean scores.

There is significant difference between the experimental and control group post-test geography academic achievement mean scores.

There is significant difference between private and public school students on post-test geography academic achievement mean scores.

There is no significance difference between boys and girls on post-test geography academic achievement mean score

RECOMMENDATION

Based on the findings, the following recommendations were made.

The use of the package improved the academic achievement of students in the present study. As such therefore, geography teachers should be encouraged to use motivation package as alternative strategy that they can fall back on in order to improve the teaching and learning of senior secondary geography.

Motivation package strategy is an effective and gender-friendly instructional strategy that should be used to maximize learning among students irrespective of their gender.

Public secondary schools should be equipped with basic school facilities that facilitate learning of geography by the government to enable the student's benefit from the use of motivation package at this level.

There should be training and re-training of geography teachers through series of workshops, seminars and symposia on Motivation Package as well as how to come up with effective pedagogy in handling the teaching and learning.

Geography teachers associations at national and international levels should mount conferences and workshops for the purpose of sensitizing teachers and teacher educators on various aspects of Environmental Motivation Package, environmental/education and hazards, as well as, and their incorporation into school curricular through dissemination of communiques from such activities to relevant agencies and organs of government for policy decisions and implementation.

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