



## EFFECT OF FIELDTRIP STRATEGY ON SENIOR SECONDARY SCHOOL STUDENTS' ACADEMIC ACHIEVEMENT IN GEOGRAPHY IN NUMAN EDUCATIONAL ZONE, ADAMAWA STATE, NIGERIA

Suwopoleme Silas Estawul<sup>1</sup>, Linus K. Sababa<sup>2</sup>, Jacob Filgona<sup>3i</sup>

<sup>1</sup>Department of Science Education, Adamawa State University, Mubi, Nigeria

<sup>2</sup>Department of Science Education, Adamawa State University, Mubi, Nigeria

<sup>3</sup>Government Day Secondary School, Monduva, Mubi South LGA, Nigeria

### Abstract:

This study investigated the Effect of Fieldtrip Strategy on Senior Secondary School Students' Academic Achievement in Geography in Numan Educational Zone, Adamawa State, Nigeria. Two research questions and two hypotheses were formulated and tested in the study. The study adopted the quasi-experimental research design. A sample size of 138 Senior Secondary two (SS II) students offering geography from two public senior secondary schools in Numan Educational Zone was used for the study. The groups consisted of an experimental and control groups which were taught for six weeks. The research instruments used to obtain data were the Teachers' Qualification Assessment Checklist (TQAC), Fieldtrip Facilities Inventory (FFI) and the Geography Achievement Test (GAT). The reliability index of the instrument (GAT) was determined using Guttman Split-half Statistic. This yielded a reliability coefficient of 0.70. The research questions were answered using frequency counts and percentages and the hypotheses was tested using Kolmogorov Smirnov two-sample test. The result showed that most geography teachers in Numan educational zone are B.Sc. holders, who do not possess the basic qualification of teaching. The study also revealed inadequate facilities for conducting fieldtrips in Numan educational zone. There was a statistically significant difference in the academic achievement of students taught geography using fieldtrip strategy and conventional method. Male students in the experimental group performed better in geography than their female counterparts. Since fieldtrip strategy improved students' achievement in Geography, it was recommended that Government should employ qualified graduate teachers in geography education to teach the subject.

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<sup>1</sup> Correspondence: email [sababalinus1234@gmail.com](mailto:sababalinus1234@gmail.com), [ssdeozigy@gmail.com](mailto:ssdeozigy@gmail.com), [filgonajeff@gmail.com](mailto:filgonajeff@gmail.com)

Government should also provide secondary schools with adequate facilities for conducting fieldtrips. Geography teachers teaching in secondary schools should endeavor to adopt or incorporate this instruction technique while teaching for a better achievement of students in geography.

**Keywords:** academic achievement; effect of fieldtrip strategy; geography; conventional method

## 1. Introduction

Quality of geography education is of great concern for stakeholders in education including educators, teachers, parents, students and the Nigerian community at large. The underachievement of students in geography in Numan educational zone over the years has necessitated a series of workshop for geography secondary school teachers organized by the Inspectorate Division of the Ministry of Education.

Geography is one of the activity based school subject. The effectiveness of teaching in school can be measured by examining the method of teaching applied by teachers and the achievement of students in the school examination. In the measurement of students' academic achievement in geography as a school subject, various tasks are undertaken within and outside the classroom, the effectiveness of these activities lie in the instructional methods used by the teacher.

For the students of geography to achieve the best in the subject, teachers are expected to organize field visitation (fieldwork). Educational visits may be organized to suitable places where fundamental concepts, ecological process or events treated in the classroom become clearer to the students with great comprehension. This is because, fieldtrips generally appeal to the sense of sight, touch and hearing. Organized visits to the river side or any geographical phenomenon make the students to see in practical what was theoretically explained and learnt by them in the classroom. Fieldtrip is an outing by the students to educational places of interest outside the classroom under the guidance of a teacher or an instructor for the purpose of getting firsthand information on people, places and things for purpose of achieving permanency of learning experience.

Fieldtrip strategy is a method of teaching which helps to bring about an effective leaning of geography. Fieldtrip is far from just dishing out points to students as in traditional lecture method, where the teacher simply becomes the expositor and drill master while the learner remains the listener and a store house of facts that can be retrieved when a student hear his name called by the teacher (Oganwu, 2004). This is

not to say that the traditional lecture method is completely unproductive but there exists a difference between them. Fieldtrip is activity-based which offers opportunity for learners to get first-hand information on people, places and things in order to concretize their learning experience. In Numan educational zone, it was observed that teachers dwell extensively on the traditional method of teaching without alternating it with other relevant instructional strategies such as fieldtrips. This has affected the performance of students in both internal and external examinations as revealed by WAEC chief examiners reports (2004-2010).

According to Instructional Strategies Online (2013), fieldtrip is a study trip taken outside the classroom to obtain direct experience from the natural setting and to improve student's interest in learning for collecting data, materials or objects classroom as well as to observe objects or phenomena not possible to bring within the classroom. During fieldtrips, the entire class visits a point of instructional interest such as Museum, factory, Hill Mountain, inselbergs valleys, river side etc. According to Duvall and Krepel (1981), fieldtrip is an outdoor or fieldwork or learning exercise undertaken by the teacher and the students in certain aspect of subject, particularly in geography so as to give the students the opportunity to acquire knowledge. It is a trip arranged by the school and undertaken for educational purpose in which the students go to places where the concepts for instruction may be observed and studied directly in their functional setting.

NERDC (2007) states that the Basic Technology curriculum reports that real-life experiences through community resource, fieldtrip, information and communication technology (ICT), learning and instructional materials and so forth, should be used to facilitate teaching and learning. Meanwhile, schools lacking the basic requirement could engage in industrial visitation through community resource persons to share their skills, knowledge and expertise. The adoption of this teaching strategy in Numan educational zone will be of great significance as it will help address the present issue of students' underachievement and the over reliance of teachers on the conventional method of teaching. Fieldtrip is one of the major constructivist methods of teaching and learning. The teaching strategy is student-centered and students-directed. Teachers simply facilitate the learning task. The method allows the learner to learn through participation and observation in the learning process. Through interaction with others, learners come to understand what is being learned in the permanent way. The attempt is to shift from teacher centered to learner- centered mode of teaching.

Fieldwork is a trip to places of geographical interest (Ajeagbu, 1972). Such trips may be short or long and they may be within the school environment and locality, and/or they could be considerable distance covering a number of days out of the

classroom. Fieldtrip is educationally valuable to geography teacher and students to the extent that it meaningfully relates phenomena observed outside the classroom to the subject matter taught in the classroom. For instance, students who were taught about various geographical phenomena would see it for themselves and appreciate it better and relate issues each time they are taught of geographical concepts. The importance of such a fieldtrip is made known to the learner for his learning and his future. The particular needs and learning experiences required for fieldtrip should adequately be provided by the teacher. It is within this premise that the study examined the Effect of Fieldtrip Strategy on Senior Secondary School Academic Achievement in Geography in Numan Educational Zone.

The adoption of fieldtrip strategy in teaching is however cost expensive. The cost of preparation and taking the students to the site of visits requires funding. With the problem of poor funding of schools that has bedeviled the Nigerian educational system, it could be said that probably, teachers in Numan Educational Zone might have shy away from adopting this strategy due to poor funding. Irene and Baguma (2011) stated that the use of constructivist approach to teaching and learning of geography (such as fieldtrip strategy) can only be effective if the right learning environment is created and provided with adequate learning facilities.

Nsambugwu (2012) added that infrastructure such as library, laboratory resources, internet facilities and appropriate building and places of educational visits are the facilities that maximize the constructivist learning approach. The inadequacy of these facilities in schools is a serious setback to the proper adoption of learner's centered instructional strategies. What facilities are available for conducting fieldtrips in Numan Educational Zone? The study would provide an answer to this question.

The use of fieldtrip as a method of teaching helps to bring about an effective leaning of geography across gender. Fieldtrip is an interactive strategy of teaching which gives both male and female students equal opportunity to widen their practical and cultural experiences by varying their learning environments. Thus, Amosa (2013) remarked that no evidence of superiority is expected to be noticed in academic achievement based on gender, that is, if both male and female students are exposed to learning experience equally. This study however provides a conflicting report to this assertion.

In Numan Educational Zone, it was observed that the academic achievement of secondary school students in geography in recent times was not encouraging (below average) and so need urgent attention. The WAEC Chief Examiner's reports have highlighted poor candidates' performance in SSSCE geography as a school subject continuously. This is so because, probably Geography teachers in Numan Educational

Zone still rely on the lecture method of instruction while neglecting the use of Fieldtrip Strategy. As such, students see geography as a collection of mere ideas presented as facts. They find geographical concepts confusing and unfamiliar. Students therefore, learn geographical concepts in abstract form and are subjected to too much imagination of geographical features instead of learning through practical observation in the fieldwork.

Although the learning of geography is not limited only to the classroom activities, not much is researched in areas regarding empirically documented works about the effect of fieldtrips on the students' academic achievement in geography in Numan Educational Zone. Hence, this study focused on the "Effect of Fieldtrip Strategy on Senior Secondary School Students' Academic Achievement in Geography in Numan Educational Zone, Adamawa State, Nigeria".

### **1.2. Statement of the Problem**

In Numan Educational Zone, it was observed that most teachers still rely on the lecture method while neglecting the use of fieldtrips in their instructional deliveries. Students offering Geography therefore graduate from secondary schools with theoretically based knowledge without being exposed to practical knowledge of geography. This may affect retention and achievement of students in internal and external examinations. For instance, the WAEC Chief Examiner's reports (2004-2010) have highlighted poor candidates' performance in SSSCE geography as a school subject continuously. Secondary school students offering Geography in Numan Educational Zone may not be exempted from this. However, there are a few, if any, empirical study that have been carried out in Adamawa State and in Numan educational zone in particular on the effect of fieldtrip strategy on students' academic achievement in Geography. Most previous studies are theoretical in nature, dwelling extensively on the importance of fieldtrips in the teaching and learning of geography. Therefore, this study determines the Effect of Fieldtrip Strategy on Senior Secondary School Students' Academic Achievement in Geography in Numan Educational Zone, Adamawa State, Nigeria.

### **1.3. Purpose of the Study**

The main purpose of this study was to investigate the effect of fieldtrip strategy on senior secondary school students' academic achievement in Geography in Numan Educational Zone, Adamawa State, Nigeria. Specifically, the objectives of this study were to:

- 1) determine the causes of underachievement of students in geography in Numan Educational Zone;

- 2) examine the effect of Fieldtrips Strategy and Conventional Method on students' academic achievement in Geography; and
- 3) determine the influence of gender on academic achievement of students taught Geography using Fieldtrip Strategy.

#### 1.4. Research Questions

This study sought to find answers to the following research questions:

- 1) What qualifications do geography teachers in Numan Educational Zone possess?
- 2) What facilities are available for conducting fieldtrips in Numan Educational Zone?

#### 1.5. Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

**H<sub>01</sub>:** There is no significant difference in the academic achievement of students taught Geography using Fieldtrip Strategy and Conventional Method.

**H<sub>02</sub>:** There is no significant difference in the academic achievement of Male and Female students taught Geography using Fieldtrip Strategy.

## 2. Materials and Method

The study adopted the quasi-experimental non-equivalent pre-test post test control group design.

The design is summarized as follows:

O<sub>1</sub>     X<sub>1</sub>     O<sub>2</sub>  
O<sub>3</sub>     X<sub>2</sub>     O<sub>4</sub>     where:

O<sub>1</sub> and O<sub>3</sub> are Pre-test

O<sub>2</sub> and O<sub>4</sub> are Post test

X<sub>1</sub> is the Experimental group taught using Fieldtrip Strategy.

X<sub>2</sub> is the Control group taught using Conventional Method.

### 2.1 Sample and Sampling Technique

The sample for the study comprised all public senior secondary schools students in Numan Educational Zone. Multi-stage sampling technique was used to select two out of five Local Government Areas in Numan Educational Zone. This zone is located in the North Eastern part of Nigeria and South Western part of Adamawa State. The Zone comprised of five Local Government Areas namely: Demsa, Numan, Lamurde, Guyuk and Shelleng Local Government Areas.

The sample size of the study comprised of 138 Senior Secondary two (SS II) students offering geography from two intact classes used in the study; with 60 males and 78 females' participants. The simple random sampling technique was used in selecting two senior secondary schools, one each from the two sampled Local Government Areas of Numan Educational Zone namely: Numan and Lamurde. Two intact classes from these two senior secondary schools were further sampled using balloting without replacement. One of the intact classes in Numan LGA with 63 (29 males and 34 females) students formed the Experimental group. While the other intact class in Lamurde LGA with 75 (31 males and 44 females) students served as the Control group. The Experimental group was taught concepts in geography theoretically and then exposed to Fieldtrips (practical) while the Control group was taught theoretically without any exposure to fieldtrips (no practical). A total of 15 teachers were randomly sampled from the senior secondary schools in the study area consisting of 11 males and 4 females to form part of the study. Furthermore, 76 teachers teaching Geography in the two Local Government Areas of Numan Educational Zone were selected using simple random sampling technique and used as respondents in the study.

## **2.2. Research Instruments**

Three research instruments were used for the study. The Teachers' Qualification Assessment Checklist (TQAC) was a questionnaire designed to get information on the qualifications of the Geography teachers. The second instrument in the research was a Fieldtrip Facilities Inventory (FFI) designed to get information on the relevant facilities used in conducting fieldtrips. While the third was a self-constructed instrument titled, "Geography Achievement Test" (GAT). The instrument comprised of 36 items divided into two sections. Section A with 31 objective items required the students to circle the correct option, while Section B with five essay items to answer four which required the students to write comprehensively on questions related to the topics taught in Geography. The GAT instrument was structured based on the table of specification according to Bloom's Taxonomy of behavioral objectives.

**Table 1:** Item Specification of Learning Objectives in the Test Instrument (GAT)

Topic	Knowledge (22.2%)	Comprehension (22.2%)	Application (22.2%)	Analyses (22.2%)	Evaluation (11.1%)	Total
<b>Denudation</b> (25%)	2	2	2	2	1	9
<b>Weathering</b> (25%)	2	2	2	2	1	9
<b>Water Resources</b> (25%)	2	2	2	2	1	9
<b>Plains</b> (25%)	2	2	2	2	1	9
<b>Total</b>	8	8	8	8	4	36

### 2.3. Validity of the Instruments

In order to provide for content and face validity, the instruments (TQAC, FFI and GAT) were subjected to thorough scrutiny by an expert in Geography and Education in the Department of Science Education, Adamawa State University, Mubi. Also, two geography teachers from secondary schools were involved in the validation. The validators offered suggestions for some items in the instrument (GAT) to be reconstructed in line with Blooms' Taxonomy of behavioral objectives. For example, 45 items were given but were later reduced to 36 items. The validators also guided the researcher on mark allocation, duration of the study, marking scheme, teachers' qualifications and other relevant areas. All necessary corrections were made and incorporated in the final body of the instruments.

### 2.4. Reliability of the Instruments

In determining the reliability of the instrument (GAT), a pilot test was carried out using 60 students offering geography in two senior secondary schools in Mubi North Local Government Area. The scores of the students obtained after pilot testing were correlated using Guttman's Split-half statistic. This yielded a reliability index of 0.70. This reliability coefficient was therefore considered adequate for the study. The TQAC and the FFI instruments as indicated by the validators were considered adequate for the study hence, were not pilot tested.

### 2.5. Procedure for Data Collection

The procedure for the research treatment was in four phases. The four phases involved were the preliminary, pre-treatment, treatment and the post treatment stages.



**Phase One:** This is the preliminary stage of the research treatment procedure. The researcher conferred with the principals of the sampled schools with an introductory letter from the Science Education Department, Adamawa State University, Mubi. Permission was sought to engage some senior secondary school students (SS II) in the study and also to seek the consent of some geography teachers to serve as Research Assistants. The two geography teachers that agreed to participate in the study as research assistants were given general introduction and instructions on how to carry out the research treatment on the selected classes. Moreover, the research assistants were given lesson plans based on the Conventional Method of teaching (Lecture method) for the control group and for the Experimental group, the Fieldtrip Strategy of teaching. Lesson plans on the selected topics from SS II Geography curriculum were prepared and used to teach the experimental and control groups. Out of the two groups, the Experimental group was exposed to treatment using Fieldtrip Strategy and the Control group was exposed to concept in geography using Conventional Method.

**Phase Two (Pre-treatment Stage):** In order to assess students' initial level of performance in geography in the experimental and control groups prior to the exposure of students to the Fieldtrip Strategy of teaching. Geography Achievement Test (GAT) was administered as pre-test to students in the two groups. This was done in the first week of study.

**Phase Three (Treatment Stage):** After the pre-treatment, the treatment was administered on students in the two groups. In the Experimental and Control groups, the topic taught were: denudation, weathering, water resources and plains. The experimental group was exposed to learning concepts in geography using the Fieldtrip Strategy, while the control group was taught using Conventional Method.

#### **Treatment Procedure for the Control Group**

The instructional process for the control group was predominantly the traditional lecture method, which is characterized by talking, presentation of instructional content, identification and explanation of the topics by the teacher and students listen and take notes. They were taught Denudation and Weathering in the second and third week of the study and also were taught Water Resources and Plains on the fourth and fifth weeks respectively.

#### **Treatment Procedure for Experimental Group**

In the second and third weeks of the experiments, the students in the experimental group were taught denudation and weathering, after which they were taken out to the Gyawana hill (knoll) and Bali Mountain respectively where the practical explanations and discussions were made. The teacher guided and entertained questions from the students on the processes of weathering, factors affecting weathering, factors affecting

denudation and sequences (stages) of denudational activities. During the fourth and fifth weeks, the students were taught water resources and plains. They under took a trip to Kiri Dam, and River Benue where they saw flood plains, the type of agricultural activities taken place there especially the irrigation farming. At the Kiri dam site, the instructor took them to the spillway gates. They learned the importance of dams, types of water resources with their examples. They also saw people (fishermen) fishing, washing, bathing and those traveling on boats especially in Kwatan borong in Numan, along River Benue. They also tested and used the important mode of water transport, such as boats and barges to cross River Gongola. Teachers, with the help of the field instructors, engaged students in discussing the uses of water as an environmental resource and also entertained questions accordingly.

**Phase Four (Post Treatment Stage):** After teaching the experimental and control groups using fieldtrip strategy and conventional lecture method, the Geography Achievement Test (GAT) was administered. The students were scored 31 marks for the objective items and 69 marks for the essay items. The scores of all the groups were then gathered for analysis.

### 2.6. Method of Data Analysis

After the data were collected, the scores were subjected to further analysis. The research question one and two were answered using frequency counts and percentages while research hypotheses one and two were tested using Kolmogorov Smirnov two-sample test. Kolmogorov Smirnov two-sample test is a statistical test which tries to look at two sets of distribution data and finding out the relationships between them.

### 3. Results

The pre-test scores of students in the experimental and control groups were analyzed. This was done in order to ascertain the entry behavior of students in the experimental and control groups before treatment. The data were analyzed and presented in Table 2.

**Table 2:** Summary of t-Test Analysis of Pre-test Results of Students in the  
Experimental and Control Groups

Variable	N	Mean	SD	df	t	Sig. (2-tailed)
Experimental Group	63	23.23	12.297			
Control Group	75	23.07	14.124	136	0.081	0.936

Not significant  $p > 0.05$ .

Table 2 shows the mean scores of the students in Control and Experimental groups at the commencement of the study. The table reveals that there is no statistically significant difference in the academic achievement of students in the pre-test level ( $t = 0.081$ ,  $df; 136$ ,  $p = 0.936$ ). This indicates that the students in the experimental and control groups had equal entry behavior before the treatment.

**Research Question One:** What qualifications do geography teachers in Numan Educational Zone possess? Descriptive results of teachers' qualification obtained from the respondents in the study area were used to address this question. The result is presented in Table 3.

**Table 3:** Qualifications of Geography Teachers in Numan Educational Zone

S/No.	Items	Frequency	Percentage
1.	NCE	7	9
2.	B.Sc. (Ed.)	10	13
3.	M.Sc. (Ed.)	1	1
4.	B.A (Ed.)	3	4
5.	Diploma	3	4
6.	HND	7	9
7.	B.Sc.	31	41
8.	M.Sc.	2	3
9.	B.A	3	4
10.	B. TECH	9	12
11.	Ph.D.	0	0
	<b>Total</b>	<b>76</b>	<b>100</b>

Table 3 shows the qualifications of 76 geography teachers in the sampled senior secondary schools in Numan educational zone. The result reveals that 7(9%), 10(13%), 1(1%) and 3(4%) possess the basic teaching qualifications, which are, NCE, B.Sc. (Ed.), M.Sc. (Ed.), and B.A (Ed.) respectively. On the other hand, 3(4%), 7(9%), 31(41%), 2(3%), 3(4%) and 9(12%) are Diploma, HND, B.Sc., B.A and B.TECH holders respectively, who do not possess the basic teaching qualifications. This means that a huge chunk of Geography teachers in Numan Educational Zone do not have the minimum qualifications to teach the subject in Secondary Schools.

**Research Question Two:** What facilities are available for conducting fieldtrips in Numan Educational Zone? The Fieldtrip Facilities Inventory (FFI) was used to record the available facilities for conducting fieldtrips in secondary schools of Numan Educational Zone and used to answer this research question. The result is presented in Table 4.

**Table 4:** Showing the Frequency and Percentages of Facilities used in Conducting Fieldtrips in Secondary Schools in the Study Area

S/No.	Items	Frequency	Percentage
1.	Compass	0	0
2.	Measuring tape	3	75
3.	Ranging pole	1	25
4.	Chain	0	0
5.	Binocular	0	0
6.	Vehicles	0	0
7.	GPS	0	0
8.	Theodolite	0	0
9.	Cross staff	0	0
10.	Leveling Taft	0	0
	<b>Total</b>	<b>4</b>	<b>100</b>

From the data in Table 4; it is apparent that there are inadequate facilities used in conducting fieldtrips in the study area. From the table, it could be deduced that out of the 10 instruments used in conducting fieldwork, there were only 3 (75%) measuring tapes and 1 (25%) ranging pole available in the three schools used for the study. This shows that the facilities used in conducting fieldtrips were grossly inadequate in Secondary Schools of Numan Educational Zone.

**H<sub>01</sub>:** There is no significant difference in the academic achievement of students taught Geography using Fieldtrip Strategy and Conventional Method.

To test hypothesis one, the experimental and control groups students' mean scores were analyzed using Kolmogorov Smirnov two-sample test. The result is presented in Table 5.

**Table 5:** Summary of Two-Sample Kolmogorov Smirnov Test of Students' Post Test Scores in Fieldtrip Strategy and Conventional Method

Variable	N	D	K-S	Asymp. Sig. (2-tailed)
Fieldtrip Strategy	63			
Conventional Method	75	.463	2.708	.000*

\*Significant;  $p < 0.05$ .

Table 5 shows the K-S analysis of students' achievement in Geography between the experimental and control groups. It could be concluded from the table that there is a significant difference in the mean scores of students taught Geography using fieldtrip strategy and their counterpart taught using conventional method ( $D (0.463) = 2.708, p =$

0.000). This indicates that the students exposed to fieldtrip strategy performed significant than their counterpart taught using conventional method.

**H<sub>02</sub>:** There is no significant difference in the academic achievement of Male and Female students taught Geography using Fieldtrip Strategy.

The hypothesis sought to the find out if there is a significant difference in the academic achievement of students exposed to geography through fieldtrip strategy based on gender. The students post test scores in fieldtrip strategy by gender were analyzed using Kolmogorov Smirnov Z test. The result is in Table 6.

**Table 6:** Summary of Kolmogorov Smirnov Z Analysis of Male and Female Students' Academic Achievement in Fieldtrip Strategy

Variable	N	D	K-S	Asymp. Sig. (2-tailed)
Male	29	.465	1.838	.002*
Female	34			

\*Significant;  $p < 0.05$ .

It could be noticed from the K-S Z analysis in Table 6 that there is a significant difference between the achievement of male and female students in the experimental group ( $D (0.465) = 1.838, p = 0.002$ ). The result favored the male students, which means that the female students performed poorer than their male counterparts in Geography.

#### 4. Discussion

This study investigated the effect of fieldtrip strategy on students' academic achievement in geography in Numan Educational Zone, Adamawa State, Nigeria. Before the commencement of the treatment, students in the experimental and control groups were given pre-test to determine their entry behavior. However, the pre-test results indicated that there was no statistically significant difference in the academic achievement of students in geography prior to treatment ( $t = 0.081, df; 136, p = 0.936$ ). Thus, indicating that the students had equivalent entry behavior before the treatment.

##### a. Qualifications of Geography Teachers in Numan Educational Zone

The findings of research question one revealed that majority of the teachers in Numan educational zone are without the basic teaching qualification. This means that teachers may not have the basic teaching strategies to effectively teach the subject. This could be a likely reason for the under-achievement of students in geography in both internal and external examinations. This finding agreed with the finding of Obanya (2002) who noted that quality pervades every element of the activities on both individual learners

and the educational system. The quality of the teachers therefore affects the output of the teacher and the performance of the students.

**b. Available Facilities for Conducting Fieldtrips in Numan Educational Zone**

The findings of research question 2 showed that the available facilities that could be used for conducting fieldtrip in secondary schools in Numan educational zone are measuring tape 3(75%) and ranging pole (25%). Thus, an indication that the facilities used in conducting Fieldtrips in the study area were grossly inadequate. This finding also agreed with the assertion by Irene and Baguma (2011) which stated that the use of constructivist approach to teaching and learning of geography can only be effective if the right learning environment is created and provided with adequate learning facilities. Furthermore, Nwabuguwu and Chika (2012) added that infrastructure such as library, laboratory resources, internet facilities and appropriate building and places of educational visits are the facilities that maximize the constructivist learning approach. The inadequacy of these facilities in schools is a serious setback to the proper adoption of learner's centered instructional strategies. Absence of these facilities in Secondary schools will grossly affect students' achievement. Probably, the shortage of these fieldtrip facilities could be the likely reason why geography teachers teaching in secondary schools of Numan Educational Zone remain glued to the traditional method of teaching.

**c. Academic Achievement of Students taught Geography using Fieldtrip Strategy and Conventional Method**

The findings of hypothesis one revealed that students who were exposed to Fieldtrip Strategy had better scores in Geography than those who were taught using Conventional Method. Those exposed to Fieldtrip Teaching Strategy had the privilege of seeing and touching what they were taught theoretically in the class. This could be the likely reason for their improved achievement. This finding coincides with Tchombe and Nnamanang (2011) study which noted that learning that is activity based could develop in learners a good understanding of the material to be learned. According to Instructional Strategies Online (2013), a study trip taken outside the classroom to obtain direct experience from the natural setting and to improve student's interest in learning for collecting data, materials or objects classroom as well as to observe objects or phenomena not possible to bring within the classroom. Through practical engagement, students learning outcomes in Fieldtrip Strategy improved.

**d. Male and Female Students' Academic Achievement taught Geography using Fieldtrip Strategy**

The finding of hypothesis two revealed a significant difference between male and female students in the experimental group. The difference in the achievement was in

favor of the male students. This finding agreed with the report from Ipem and Odeigah (2013) who found a significant difference in male and female achievement in geography in Nigeria. The study revealed that the female students performed poorer than their male counterparts. In contrast, Amosa (2013) remarked that no evidence of superiority is expected to be notice in academic performance based on gender, if male and female students are exposed to learning experience equally. Nevertheless, the achievement of female students might have improved significantly if they had interacted the more within and outside the classroom. This is so because, in the course of this study, it was observed that female students were being dominated by their male counterparts to the extent that the instructors had to do all it takes to get them involved in the learning process. It was also clear going by their responses in the class that they felt inferior to their male counterparts. This might be the likely reason for their underachievement in Geography.

## **5. Conclusion**

Fieldtrip Strategy appears to have a better record of success in increasing students' motivation to learn and enhancing higher academic achievement. Students taught Geography using Fieldtrip Strategy in this study performed significant than those taught using conventional method. However, the strategy has shown not to be gender friendly in that male students achieved better results in geography than their female counterparts. Fieldtrip teaching strategy therefore, could be used to address the problems of students' underachievement in Secondary Schools' geography.

## **6. Recommendations**

Based on the findings of this study, the following recommendations are made: The study found out that the majority of teachers who teach geography in secondary schools of Numan educational zone are B.Sc. holders without the basic teaching qualification. It was therefore recommended that the State government in collaboration with the Ministry of Education should employ qualified geography teachers in Secondary schools. A qualified teacher is best acquainted with the strategies to be used in teaching at a given period of time to achieve the desired learning outcome.

The study revealed that there were inadequate facilities to conduct fieldtrips in schools. The State government in collaboration with the Parent Teacher Association (P.T.A) should provide secondary schools with the relevant facilities needed in conducting fieldtrips.

The study also indicated that the students exposed to fieldtrips teaching strategy performed better than their counterparts taught using conventional method. It was therefore recommended that the use of fieldtrip strategy of teaching should be integrated in the teaching programme and teachers should be encouraged to adopt the strategy while teaching.

Fieldtrips has been shown to improve students' academic achievement in geography. Ministries of education and inspectorate Division should conduct training, workshops and seminars to acquaint teachers with current pedagogical skills used in teaching and learning geography.

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