



Relationship between Students' Attitude and Achievement in the new contents of Senior Secondary School Geography Curriculum in Plateau State, Nigeria

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ABSTRACT

The study assessed the new content of senior secondary school Geography curriculum in relation to students' attitude and achievement. A sample of 376 SSII Geography students, drawn from the population of 1,627 was used for the study. Three research questions and two hypotheses were answered and tested respectively during the study. Students' new content geography attitude scale (SNCGAS) and new content Geography achievement test (NCGAT) were used for data collection. Mean, standard deviation, frequency count and percentage were used to answer the research questions, while the Pearson product moment correlation coefficient and t-test for independent samples were used to test the hypotheses. Results of the study revealed that students had negative attitude and poor achievement in the new contents of senior secondary school geography curriculum. It was also found that there was significant positive relationship between students' attitude and achievement in the new contents of the senior secondary school geography curriculum. Based on these findings, it was recommended that geography teachers should employ professional teaching skills that would improve students' attitude and achievement in the new contents of the curriculum.

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INTRODUCTION

Geography is a science which studies the earth and all the human and natural elements on its surface base on their location, spatial patterns and interrelationship. The application of Geography to a wide range of human endeavor has left no one in doubt about its utility value. Consequently, Mansaray as cited in Olusegun (2014) states that the knowledge of Geography is important and useful not only to the learners, but to everyone who seeks to cope with the ever emerging realities of our time. Hence, the contents and teaching of Geography in Nigerian schools and other parts of the world today, is tailored towards achieving the Sustainable Development Goal (SDG), a modified Millennium Development Goal, which includes: no poverty, zero hunger, good health, quality education, gender equality, clean water and sanitation, affordable and clean energy, economic growth,

industry, innovation and infrastructure. Others are reducing inequality, sustainable communities, responsible consumption and production, climate action, life below water, life on land, peace, justice and strong institutions and partnerships for the goals (Wikipedia, 2019). It thus became imperative for the Nigerian government to review the existing senior secondary school curriculum to re-align it to the requirement of SDG. Not only now that geography curriculum and teaching is adapted to solving human problem in Nigeria. In December 2005, the National Council on Education at its meeting in Ibadan mandated the NERDC to chair a High Level Policy Committee on Curriculum Development, comprising all stakeholders in the education sector, to fashion out a curriculum reform that would address the objectives of MDG.

The assignment of the committee gave rise to the 2007 senior secondary school



geography curriculum. This curriculum had a unique feature in the area of reduction in its scope and content and the addition of new topics without the subject losing its quality (NERDC, 2007). Regional geography of West Africa and Africa were major areas expunged in the 2007 curriculum, while the newly introduced contents included climate change, geo-political issues (land reclamation), Geographic Information System (GIS) and satellite remote sensing. Since the implementation of this curriculum in 2011, geography teachers in the study area have expressed worries and concern about their competency in teaching the new contents, with particular reference to GIS and satellite remote sensing. Similarly, students skipped to answer examination questions on the new contents, particularly GIS and satellite remote sensing. This attitude of students culminates into their low Geography achievement in both external and internal examination. Ahmed and Suleman (2017) for instance, reported that academic performance of students in SSCE conducted by WAEC and NECO between 2007 and 2015 were poor. This, according to the authors, resulted from several factors: negative attitudes of students, teachers' qualification, curriculum implementation, learning conditions and time allocated to cover the syllabus.

Achievement as viewed by Samuel (2012) is the outcome of education, defined by the extent to which a student, a teacher or institution has achieved the educational goals. It is commonly measured by examination or continuous assessment. Academic achievement is considered to be a multifaceted construct that comprises different domains of learning (cognitive, affective and psychomotive). This implies that the field of academic achievement covers a broad area of human abilities. School achievement can be measured by the development of students' abilities in the above stated three domains. School achievement, based on students' development variables has different levels which can be high (60% and above), moderate (59-40%) and low (below 40%) (Cooper & Burger in Olodu, 2012).

Attitude is one of the non-cognitive domains that affect student's achievement in a particular course. Jeffery, Bozick, Dalton and

Robert (2010) assert that non-cognitive behaviours include a range of personality and motivational habits and attitudes that facilitates functioning well in school. Attitude is among the personality factors that contributes to academic achievement, thus a learner's attitude relates to all the factors of his/her education (Ajayi, Lawani & Adeyanju, 2011). Students have higher achievement in a subject when they have a positive attitude towards that subject and otherwise if their attitudes are negative (Walker, 2006). More so, Anup and Anujit (2017), in a study conducted on Bengali Medium Geography Students, showed a significant positive relationship between the attitude and achievement. Despite the implication of attitude to academic achievement, little attention is paid to research in this respect in Geography (Quain, 2014). Yet, attitude determine students' attractiveness or repulsiveness, as well as their achievement in Geography (Olasebikan in Ajayi, Lawani & Adeyanju, 2011). Ozdemir (2012) therefore opines that to get the desired success in geography, development of students' positive attitude towards Geography lesson should not be ignored by teachers, as this increase their success. Similarly, Olodu (2012) asserts that students' positive attitudes towards geography foster interest in the subject and improve their achievement. This implies that for a better achievement and higher enrolment in geography, students and geography teachers alike ought to have positive attitude and interest in the subject.

Research over the years had however shown that students have negative attitude and low interest in Geography, resulting in low enrolment and academic achievement in both internal and external examination. For instance, Khalil, Sabiu and Mohammed (2015) affirms that students have negative attitude towards geography. Okpala (1992) similarly reported that students' negative attitude towards geography resulted to low enrolment in the subject's school certificate examination.

In the contrary, a few studies have reported that students have positive attitudes towards the study of Geography. For example, Onuoha and Eze (2013), Keiper (1999), Baker and White (2003), Drennon (2005), and Quain (2014), all reported in various studies that



students had developed positive attitudes towards Geography. These contradictory study outcome served as the motivation for this study

Another factor of academic achievement in geography is gender. Gender simply refers to sex (male or female) which distinguishes people. Thus, the gender of people can be categorized either as male or female. The result of a study conducted by Olusegun (2014) showed that both male and female students performed equally the same, while another conducted by O'Connor as reported in Okafor and Ogunbode (2016) showed a superiority of male students over females in science achievement. On the contrary, result of Mari's (2001) study showed female students' superiority over male students in science achievement. The conflicting results on gender and academic achievement further motivated this study.

Objectives of the Study

The purpose of the study was to assess the new content of senior secondary school geography curriculum in relation to students' attitude and achievement in the study Area. The specific objectives of the study include to find out:

1. The attitude of students towards learning the new contents of senior secondary school geography curriculum.
2. The achievement of students in the new contents of senior secondary school geography curriculum.
3. The relationship between student's attitude and achievement in the new contents of senior secondary school geography curriculum.
4. The achievement of students in the new contents of senior secondary school geography curriculum based on gender.

Research Questions

The following research questions guided the study:

1. What is the attitude of students towards learning the new contents of senior secondary school geography curriculum?

2. What is the achievement of students in the new contents of senior secondary school geography curriculum?
3. To what extent does gender affects the achievement mean scores of students in the new contents of senior secondary school geography curriculum?

Hypotheses

1. There is no significant relationship between students' attitude and achievement in the new contents of senior secondary school geography curriculum.
2. There is no significant difference between male and female students on achievement mean scores in the new contents of senior secondary school geography curriculum.

METHODOLOGY

The study employed survey research design. The population of the study consisted of 1,627 SSII geography students in 21 public and 24 private schools in Mangu Local Government Area that have presented students for SSCE from 2014 to 2018. Out of this number, 882 were males and 745 were females. The study used the stratified random sampling technique to select the sample for the study. The researchers listed the 21 public and 24 private schools separately in the study area, and each school was given an equal chance of being selected. Each school in the lists was assigned a serial number from 1 to 21 representing public schools and from 22 to 45 representing private schools, after which the lottery method was used to select 4 public and 5 private schools. All the SSII Geography students in the 9 schools (4 public and 5 private) numbering 376 were used as the sample for the study. Out of this number, 218 were males and 158 were females.

Two instruments were used for data collection; these were: new contents Geography attitude scale (NCGAS) and new contents Geography achievement test (NGAT). NCGAS was designed to elicit response of students' attitude towards learning the new contents of senior secondary school Geography curriculum.



While NGAT was designed to test the extent of students' learning of the new contents of Geography curriculum. The Cronbach alpha method was used to determine the reliability of NCGAS, while the Pearson Product Moment Correlation Coefficient was used to determine the reliability of NGAT. These yielded .86 and .81 coefficients respectively. All the two instruments were administered face to face to the subjects. Mean, standard deviation, frequency count and simple percentage were used to answer the three research questions. While Pearson Product

Moment Correlation Coefficient and t-test for independent sample were used to test hypotheses 1 and 2 respectively.

RESULTS

The research questions and hypotheses were answered and tested as follows:

Research Question One: What is the attitude of students towards learning the new contents of senior secondary school geography curriculum?

Table 1: Attitude Mean Scores of Students towards Learning the New Topics in Senior Secondary School Geography Curriculum, N=376

S/n	New contents of senior secondary school Geography Curriculum	\bar{X}	SD
1	GIS & Satellite Remote Sensing Cumulative Attitude Mean Scores	1.82	0.67
2	Land reclamation (Geo-political issues) Cumulative Attitude Mean Scores	2.39	0.88
3	Climate change Cumulative Attitude Mean Scores	2.56	0.86
4	Cumulative Attitude Mean Scores of the New Topics	2.26	0.80

Note: $\bar{X} < 3.0$ = Negative attitude, $\bar{X} \geq 3.0$ = positive attitude

Analysis in table one reveals that the attitude mean scores of students towards Geographic Information System (GIS) and Satellite Remote Sensing ($\bar{X}=1.82$, $SD=0.67$); land reclamation/geo-political issues ($\bar{X}=2.39$, $SD=0.88$); climate change ($\bar{X}=2.56$, $SD=0.86$); and cumulative attitude mean scores ($\bar{X}=2.26$, $SD=0.80$) were below the criterion mean of 3.0.

This mean that the students have negative attitudes toward learning the new topics in the senior secondary school geography curriculum in the study area.

Research Question Two: What is the achievement of students in the new contents of senior secondary school geography curriculum?

Table 2: Frequency and Percentage Scores of Student's Achievement in the New Contents of Senior Secondary School Geography Curriculum

Range of Scores	Achievement Profile	Grade	Frequency	Percentage
70-100	Excellent	A	0	0.0
60-69	Very Good	B	0	0.0
50-59	Good	C	1	0.3
40-49	Pass	D	7	1.9
0-39	Poor	F	368	97.8

The data in table two show that no student (0.0%) had either excellent or very good performance in the new contents of the geography curriculum, only 1 student representing 0.3% had good performance, 7 students (1.9%) had ordinary passes, while 368 (97.8%) had poor achievement. This implies that majority (97.8%) of senior secondary school

students in the study area had poor achievement in the new contents of senior secondary school geography curriculum.

Research Question three: To what extent does gender affects the achievement mean scores of students in the new contents of senior secondary school geography curriculum?



Table 3: Achievement of Male and Female students in New Contents of Senior Secondary School Geography Curriculum

Range of Scores	Achievement Profile	Grade	Frequency		Percentage	
			Males	Females	Males	Females
70-100	Excellent	A	0	0	0	0
60-69	Very Good	B	0	0	0	0
50-59	Good	C	0	1	0	0.6
40-49	Pass	D	5	4	2.3	2.5
0-39	Poor	F	213	153	97.7	96.8

N=376.

The analysis of data in table three shows that no male or female student (0.0%) had either excellent or very good performance, only 1 female student (0.6%) and zero male student (0%) had good performance, 5 male students (2.3%) and 4 female students (2.5%) had pass achievement, while 213 male students (97.7%) and 153 female students (96.8%) had poor achievement. Thus, majority of both male and female students performed poorly in the new

contents of senior secondary school geography curriculum, with very slight difference in favour of females. This means that gender did not affect students' achievement in the new contents of senior secondary school geography curriculum.

Hypothesis one: There is no significant relationship between students' attitude and achievement in the new contents of senior secondary school geography curriculum.

Table Four: Relationship between Students' Attitude and Achievement in the new contents of Senior Secondary School Geography Curriculum

Group	N	\bar{X}	SD	R	P	Decision
Attitudes	376	47.14	8.74	0.78	.000	Reject
Achievement	376	23.36	7.67			

Note: $P < .05$

The result of analysis in table four shows that $r=0.78$ and $p\text{-value} = 0.000$. Since the $p\text{-value}$ is less than the significance level ($\alpha=.05$), the null hypothesis was rejecting, and thus concluded that there was significant relationship between students' attitude and

achievement in the new contents of the senior secondary school geography curriculum.

Hypothesis Two: There is no significant difference between male and female student's achievement mean scores in the new contents of geography curriculum.

Table 5: t-test Analysis of Mean Difference between Male and Female Student's Achievement in the New Contents of Senior Secondary School Geography Curriculum

Group	N	\bar{X}	SD	df	t	p	Decision
Male	218	23.09	7.47	374	.794	0.428	Accept
Female	158	23.73	7.94				

Note: $P > 0.05$

Data in table five shows that the t-test analysis result $=.794$, while $p\text{-value}=.428$. Since the $p\text{-value}$ is greater than $.05$, there a strong basis for accepting the null hypothesis. This lead to the conclusion that there is no significant

difference between male and female students on achievement mean scores in the new contents of senior secondary school geography curriculum. This implies that student's achievement in the



new topics of senior secondary school geography curriculum was the same for gender groups.

DISCUSSION OF FINDINGS

Results of the study revealed that students had negative attitudes toward learning the new contents of senior secondary school geography curriculum in the study area. This finding is in agreement with the position of Okpala (1992) and Khalil, Sabiu and Muhammed (2015) who found that students had negative attitude towards learning and low enrolment in geography. In the Contrary, Necati (2010) and Quain (2014) found that students had positive attitude towards learning geography.

The study also showed that majority of the students in the study area had poor achievement in the new contents of senior secondary school geography curriculum. This corroborated the findings of Olodu (2012), Onyekpe (2012) and Ahmed and Suleman (2017) whose study revealed low achievement of students in SSCE geography. More so, result of the study showed that there was no significant difference between male and female students' achievement mean scores in the new contents of senior secondary school geography curriculum. This finding corroborates the findings of Olusegun (2014) and Dawang (2015) who found no significant difference between male and female students on geography achievement. The study however contradicts the findings of Mari (2001), Osuafor and Esiana (2012) and O'connor in Okafor and Ogunbode (2016) who found that male students perform better than their female counterparts in science and technology and mathematics.

It was also revealed from the study that there was strong positive relationship between student's attitudes and their academic achievement in geography. This result collaborate the findings of Olasebikan in Lawani and Adeyanju (2011), Olodu (2012), Nuratu (2014), Quain (2014) and Sarkar, De and Maiti (2015). All these researchers found positive relationship between students' attitude and achievement in geography.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

1. Geography teachers should employ professional teaching skills that will inculcate positive attitude towards geography in students.
2. Other stakeholders should motivate students to develop positive attitude towards geography in order to have higher academic achievement in the subject. This is because attitude and academic achievement were found to have a strong positive relationship.

REFERENCES

- Ahmed, R. S. & Suleman, A. T. (2017). Curriculum implementation, motivation of teachers and performance of students in national examination in government secondary schools in Zaria metropolis, Kaduna State, Nigeria. *Nigerian Journal of Curriculum Studies*, 24 (1), 29-39.
- Ajayi, K. O., Lawani, A. O., & Adeyanju H.J. (2011). Effect of students' attitudes and self-concept on achievement in senior secondary school mathematics in Ogun, Nigeria. *JORIND*, 9 (2), 202-211.
- Anup, K. J., Anujit, P. (2017). Attitude and achievement in geography: A study on Bengali medium students. *International Journal of Education and Psychological Research (IJEPR)*, 6 (2), 75-77.
- Baker, T., & white, S. (2003). The effects of GIS on student's attitude, self-efficacy and achievement in middle school science classrooms. *Journal of Geography*, 102(6), 243-254.
- Dawang, N. A. (2015). Effects of discussion and field study methods of teaching on senior secondary school geography student's performance in Jos North Local Government Area of Plateau State. Unpublished undergraduate project, University of Jos, Jos.
- Drennon, C. (2005). Teaching GIS in a problem based learning environment. *Journal of geography in Higher education*, 29(3), 385-402.
- Jeffrey, A. M., Bozick, J. G, Ben, W. D., Jean, M.L., & Robert, N.B. (2010). *Non-*



- cognitive skills in the classroom: New perspectives on educational research.* Research Triangle Institute (RTI). IRT Press.
- Keiper, T. (1999). GIS for elementary students: An inquiry into a new approach to learning geography. *Journal of Geography*, 98(2), 47-59.
- Khalil, M. S., Sabiu, N., & Muhammed, S. N. (2015). A brief look at geography education in Nigeria: A case study of Kano State. *Dutse Journal of Pure and Applied Sciences*, 1(1), 11-18.
- Mari, J. S. (2001, May). *The pedagogical significance of teaching science process skills*. Paper presented at the pre-STAN National Conference organised by Science Teachers Association of Nigeria. Zaria, Kaduna State.
- Necati, T. (2010). High school student's attitude towards geography and the question they wonder about. *Scientific Research and Essays*, 5(13), 17-29.
- Nigerian Educational Research and Development Council (2007). *Senior secondary school curriculum*. Abuja: Author.
- Nuratu, M. (2014). Some issues on gender and the teaching of geography in Kano state secondary schools. *American Journal of Humanities and Social Sciences*, 2(1), 105-110.
- Okpala, J. (1992). Geography in general education in Nigeria. *Geo Journal*, 20(1), 37-43.
- Olodu, H. (2012). *Non-cognitive correlates of senior secondary school student's achievement in geography in Ika Educational Zone, Delta State*. Unpublished master's thesis, University of Nigeria, Nsukka.
- Olusegun, E. A. (2014). Effects of tutorial mode of computer-assisted instruction on student's academic performance in secondary schools practical geography in Nigeria. *An International Journal of Science and Technology Bahir Dar, Ethiopia* 3(1), 150-166.
- Onuoha, J. C., & Eze, E. (2013). Students' attitude towards the study of geography in Nsukka Local Government Area, Enugu State. *African Review of Arts, Social Science and Education*, 3 (1). 141-157.
- Onyekpe, C. G. (2012). *The state of geography achievement*. WASSCE chief examiner's interview organised by Royal Academy, Agbor.
- Ozdemir, U. (2012). High school student's attitude towards geography courses. *World Applied Sciences Journal*, 17 (3), 340-346.
- Quain, A. I. (2014). *Assessing students' attitudes towards geography in a problem based learning environment*. Unpublished master's thesis, Illinois State University.
- Samuel, M. (2012). The relationship between home environmental factors and academic achievement in geography among students in secondary schools in Umuahia Education Zone, Abia State. Unpublished master's thesis, University of Nigeria, Nnsuka.
- Sarkar, P., De, K. K., & Maiti, N.C. (2015). Attitude of school students towards geography. *Indian Journal of Applied Research*, 5(1), 469-473.
- Walker, S. (2006). Development and validation of the test of geography-related attitudes (TOGRA). *Journal of Geography*, 105 (4), 175-181.
- Wikipedia (2019). Sustainable development goals. Retrieved October 23, 2019, from https://en.m.wikipedia.org/wiki/Sustainable_Development_Goals