

TEACHER QUALITIES AS PREDICTORS OF STUDENT'S LEARNING OUTCOMES IN SENIOR SECONDARY SCHOOL GEOGRAPHY IN EKITI STATE, NIGERIA

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Abstract

The research investigated relative contributions of teacher qualities (qualification, content knowledge, and self-efficacy) to students' learning outcomes in senior secondary schools in Ekiti State Nigeria. The study sample comprised 300 senior secondary two (SSII) students and twenty teachers. Three research instruments were used for data collection; these are, "Geography Performance Test" (GPT), "Student Attitudinal Scale" (SAS), and "Teachers Content Knowledge Observation Checklist" (TCKOC). Data collected were analyzed using Multi-Linear Regression (MLR) and Analysis of Variance (ANOVA). The results showed that there was a significant relative contribution of teacher qualities (qualification, content knowledge, and self-efficacy) to academic performance Geography students in senior secondary schools in Ekiti State, Nigeria. ($F=6.119, p<0.05$). In addition, there was a significant difference in relative contributions of the teacher qualities to students' attitude towards Geography in senior secondary schools in the study area ($F=4.759, p<0.05$). Furthermore, results showed that teacher qualities contributed positively to reflective thinking of students in Geography in the study area. The instrument demonstrated high reliability for the teacher's content knowledge ($\beta=0.89$), and teacher's self-efficacy ($\beta=0.83$), while teacher's qualification showed reliability ($\beta=0.45$). The study concluded that teacher qualities (qualification, content knowledge, and self-efficacy) are important in improving students' academic performance, student

attitude towards learning Geography, and these qualities are important in improving Geography students' reflective thinking in senior secondary schools in Ekiti State.

Keywords: Teacher's Qualities, Academic Performance, Attitude, Reflective Thinking.

Introduction

Geography, as described by Ofomata (2008), is the science that looks at the spatial interactions between people and their surroundings. Because of its emphasis on the use and structuring of earth space, it is frequently referred to as the spatial science. Ofomata (2008), provides a precise, orderly, and logical description and explanation of the various features of the Earth's surface. This field of research covers both physical and geographical aspects of the environment and how humans interact with it. In addition to natural components, physical features also include man-made objects like towns, communication networks, transportation systems, buildings, and other alterations to the actual geographic environment. Geography is a broad and multidisciplinary subject of study because geographers draw from a variety of disciplines, including economics, history, systematic research, botany, geology, mathematics, and more.

More than 60% of students perform below average in Geography, the recent data from the West African Examination Council (WAEC) and National Examination Councils (NECO) (Ojukwu, 2021). The WASSCE scores for senior secondary school Geography in Ekiti State and the analysis by the Ekiti State Ministry of Education for eight years, revealed the consistently, consistent poor performance of candidates in Geography from years, 2014 to 2021, as shown by Table.1. This kind of recurring poor performance may lead to a diminishing returns in the interest of students towards studying Geography.

Table 1
Ekiti State WAEC Performance of Secondary School Students in Geography for the Year 2014–2021

Exam Year	No of Registered Students			% passed	% failed
	Total	M	F	A1 – C6	D7 – F9
2014	4043	2374	1669	31.4	68.6
2015	3829	1897	1932	33.9	66.1
2016	4072	1858	2214	30.6	69.4
2017	4189	2495	1694	37.3	62.7
2018	4258	2347	1911	39.7	60.3
2019	4312	2456	1856	35.3	64.7
2020	4141	1689	2452	40.6	59.4
2021	4947	2803	2144	37.7	62.3

Source: Ekiti State Ministry of Education.

Also, students' poor performance in Geography at external examinations conducted by West African Examinations Council (WAEC) and National Examinations Council (NECO) had been attributed to some indicators such as students' attitude to learning, inadequate instructional materials, teacher's behavior, teacher's qualifications, workload, experience, age, income, self-motivation and attitude among others (Eze 2021). The National Policy on Education (FRN, 2013) noted that the qualities of education cannot be higher than the qualities of its instructors, and this emphasizes the importance of teachers' duties at all educational levels. It is a common knowledge, that effective teachers are crucial to the performance of a country's educational system because without the teachers, no amount of available resources disburse to the system can bring the desired and expected outcomes. (Mushtaq & Kahn, 2017).

Numerous studies have demonstrated that certain educators significantly impact their students' academic growth. These research findings emphasize the critical role that teachers play in shaping their students' educational achievements and their considerable effect on these outcomes. This occurs as they engage with their students and

effectively convert educational policies into actionable practices (Agharuwhe & Nkechi, 2019). Having qualified teachers who combine pedagogical expertise, experience, positive attitudes, keen interest, in-depth subject knowledge, strong work ethics, a sense of responsibility and effective interpersonal relationships is crucial for the delivery of high-quality Geography education. In this situation, the term teacher factor or qualities refers to the visible behaviours that Geography teachers exhibit when facilitating learning and teaching. According to Ashimole (2015), the efficiency of educational systems, as well as their development and progress, are influenced by the amount, qualities, and dedication of teachers. In the same vein, Akinsolu (2016) emphasized that teachers are essential for students to fulfill their educational aims and objectives.

This study focuses on a variety of teacher characteristics, such as their experience, content knowledge, and self-efficacy. These variables were looked into, in order to obtain a better understanding about how they affect teaching and learning. Teacher's experience is the wealth of years the teacher has spent in teaching students or the responsiveness of the subject teacher to the new ideas and innovation in the field of study. When a teacher has not spent much time in the teaching profession, there is the possibility that there would not be classroom effectiveness and students' academic performance follow suit (**Jennifer King Rice 2010**). This means teacher's experience entails the urge to know and learn new things which may be transferred to learners during the teaching exercise. Analyzing teacher's experience, a Geography teacher with limited years of experience and/or with no visible plan to update knowledge may end up imparting the students with outdated instruction leading to poor academic performance and negative attitude towards the learning of Geography (Onyekuru & Josephat, 2013).

According to Grossman (2017), content knowledge entails understanding both the conceptual as well as methodological facets of the subject's nature and structure. It demonstrates the breadth of knowledge and comprehension teachers have in a given field. Teachers' content knowledge in the context of this study specifically

relates to their comprehension of various parts of Geography and their capacity to resolve mathematically based geographic problems. A key factor that demonstrates a teacher's understanding of the subject matter they are teaching is their content knowledge. Understanding what is to be taught is a crucial requirement because teaching includes aiding the learning of others and one cannot successfully transfer knowledge they do not already possess (**Steven Puttick 2015**). It is expected of Geography teachers that they do not only have a general understanding of the subject but also have a thorough understanding of it. This knowledge is essential because they are in charge of teaching the students the contents from the Geography curriculum (**Eefje Smit et al. 2023**).

According to Winston and Kwesi (2011) teacher's self-efficacy has repeatedly been identified as a crucial element that is linked to many characteristics of a successful teacher and directly influences a learner's learning results. Self-efficacy is described as the degree of certainty a teacher has in their capacity to raise students' academic performance and cultivate a love of learning. The teacher's self-efficacy is an indicator of how a teacher will react to academic issues, personal belief and confidence that he/she can create a positive influence on learners' learning outcomes even the students who seem unmotivated and difficult to direct (Olofin, 2019).

Statement of the Problem

The academic performance of Secondary school students in Geography in Ekiti State has been a challenge to various stakeholders, parents, school administrators and government in the state. The average performance of students at credit level and above in Geography from 2014 to 2021 was less than 40%. It is generally acknowledged that Students' performance in senior secondary schools examination conducted by the West African Examination Council (WAEC) is poor. Evidence has shown that students are not performing to expectation in this subject at both West African Secondary School Certificate Examination (WASSCE) and National Examination Councils' Secondary School Certificate Examination

(NECO). This trend is not only disturbing but also very discouraging especially based on the persistent nature of the problems reflected in WAEC Chief Examiner's reports in 2014 to 2021 respectively. Teacher factors have been found to be more significant because the teacher is the ultimate implementer of the Curriculum. Teachers factors have been researched into in various subjects especially Science subjects; results have consistently shown qualification, experience, content knowledge, self-efficacy, and gender to influence students' learning outcomes (academic performance, attitude and reflective thinking). However, not much has been documented about their contributions on students' learning outcomes in Geography particularly in relation to senior secondary schools in Ekiti State, which necessitates this study.

Purpose of the Study

The general objective of this study was to investigate teacher qualities as predictors of students' learning outcomes in senior secondary school Geography in Ekiti State. The Specific Objectives are to:

- a) determine the relative contributions of the teacher qualities (qualification, content knowledge, and self-efficacy) to students' academic performance in senior secondary school Geography in Ekiti State;
- b) identify the relative contributions of the teacher qualities to students' attitude towards Geography in senior secondary schools in the State; and
- c) examine the contributions of teacher qualities to reflective thinking of students in Geography in the study area.

Hypotheses

In order to attain the stated objectives, the following research hypotheses were generated and tested at 0.05 level of significance.

- I. There is no significant relative contributions of teacher qualities (qualification, content knowledge, and self-efficacy) to Geography students' academic performance in senior secondary schools Ekiti State.

- ii. There is no significant relative contributions of teacher qualities (qualification, content knowledge, and self-efficacy) to students' attitudes towards Geography in senior secondary schools in the State.

Research Question

- i. How do teacher qualities (qualification, content knowledge, and self-efficacy) contribute to reflective thinking of students in Geography in senior secondary schools in the State?

Methodology

The study adopted descriptive survey research design. The population of the study comprised senior secondary school Geography students and teachers in public and private secondary schools in Ekiti State, Nigeria. A multistage sampling procedure was adopted for this study. Stage one, two senatorial districts were randomly selected from the three senatorial districts using random sampling technique. Stage two, three Local Government Areas (LGAs) were randomly selected from each of the senatorial districts making a total of six Local Government Areas. From each of the LGAs chosen, six secondary schools were selected using proportionate random sampling techniques (four Public and two private) making a total of 30 secondary schools for this stage. For the last stage, ten Geography students were selected from each of the selected schools making the total of 300 students using simple random sampling technique. Three research instruments were employed for data collection. These are Geography Performance Test (GPT) to gather information on students' academic performance in Geography, Student Attitude Questionnaire (SAQ) to gather information on students' attitude towards Geography, and Teachers Content Knowledge Observation Checklist (TCKOC) to gather information on teacher's content knowledge in Geography. In analysing the data descriptive statistical tool was used to describe the data. Multi-Linear Regression (MLR) was used to answer the research question while Analysis of Variance (ANOVA) was used to test the two-hypotheses formulated at 0.05 level of significance.

Results

Research Hypothesis One:

There is no significant relative contribution of the teacher qualities (qualification, content knowledge, and self-efficacy) to Geography students' academic performance in senior secondary schools in the State.

To test this hypothesis, the teacher qualities and the raw scores of the Geography Performance Test administered to the Geography students were subjected to statistical analysis using ANOVA at 0.05 level of significance. The result of the analysis is presented in Table 2.

Table 2

Contributions of Teacher Qualities to Geography Academic Performance in Senior Secondary Schools

Model	Sum of Squares	Df	Mean	F	Sig.
Regression	197.108	5	44.972	6.119	.000 ^b
Residual	102.892	14	7.349		
Total	300.000	19			

Dependent variable: Geography students' academic performance

The results in Table 4.1 showed that there was a significant relative contribution of teacher qualities to students' academic performance in Geography ($F=6.119$, $p < 0.05$). The result was significant because the probability of F-calculated is less than 0.05. Therefore, the null hypothesis which stated that there is no significant relative contribution of teacher's qualities to academic performance of students in senior secondary schools in the State is rejected.

Research Hypothesis Two

There is no significant relative contributions of teacher qualities (qualification, content knowledge, and self-efficacy) to students' attitudes towards Geography in senior secondary schools in the State.

Table 3

Contributions of Teacher Qualities to Students' Attitude towards Geography in Senior Secondary Schools

Model	Sum of Squares	Df	Mean	F	Sig.
Regression	324.646	5	87.489	4.759	.000 ^b
Residual	257.354	14	18.382		
Total	600.000	19			

Dependent variable: Students' attitude towards learning of Geography

The results in Table3 showed that there is a significant relative contribution of these qualities to students' attitude towards learning of Geography ($F=4.759$, $p < 0.05$). The result is significant because the probability of F-calculated is less than 0.05. Therefore, the null hypothesis which stated that there is no significant relative contribution of teacher's qualities to students' attitude towards learning of Geography in senior secondary schools in the State is rejected.

Research Question:

How do teacher's qualities (qualification, content knowledge, and self-efficacy) contribute to reflective thinking of student in Geography in senior secondary schools in the State?

Table 4

Contributions of Teacher's Qualities to Reflective Thinking of Students in Geography

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.
Constant	39.046	10.398		3.755	0.000
Teacher's Content Knowledge	0.828	0.178	0.515	6.054	0.008
Teacher's Self Efficacy	0.828	0.178	0.433	4.652	0.007
Teacher's Qualification	0.453	0.878	0.083	0.516	0.014

Dependent Variable: Students Reflective thinking in Geography

Table 4 showed that teacher's content knowledge as a predictor had the highest contribution with $\beta=0.89$ to student's reflective thinking. This pointed out that an increase in the knowledge of the teacher can give rise to better reflective thinking of the students. In addition, teacher's self-efficacy which has a $\beta=0.83$, signified that the more the teacher believes in himself/herself to make the learners succeed, the better the reflective thinking of the students. Lastly, the relative contribution of teacher's qualification to the students' reflective thinking in Geography $\beta=0.45$, demonstrating that the more the certified an instructor is, better the intelligent reasoning of the understudy.

Discussion of Findings

The findings of the study revealed that teacher qualities; qualification, content knowledge, and self-efficacy have relative contributions to students' academic performance, attitude and reflective thinking in the learning of Geography in Senior Secondary School. Also, contributions of these teacher qualities were found to be positively related to Geography students' academic performance, attitude and reflective thinking in Senior Secondary Schools.

The academic performance of students in Geography is being influenced by the qualification of their teachers. This observation aligns with the findings of (Filgona & Sakiyo, 2020) who discovered that the qualification of the teacher does play a role in students' academic achievement

In addition, teacher's content knowledge had a positive contribution to Geography students' academic performance. It can be explained that the teacher's mastery of the Geography curriculum contents goes a long way in determining the performance of the learners and students' attitude towards learning Geography. Also teacher's self-efficacy contributed to learning outcome in Geography. This pointed out that teacher's belief and confidence help students to achieve equally irrespective of the students' level of academic ability.

The findings of Fehintola (2014) supported the notion that teacher qualities played a significant role in students' academic performance. In the same vein, Etuibon (2014) emphasized that professionally qualified teachers make a substantial contribution to students' academic achievements, highlighting a notable gap in performance between learners taught by qualified and less qualified teachers. However, Omonije's research (2016) contradicts these findings, as it suggests that teacher qualities are not significantly correlated with the academic performance of Economics students in Senior Secondary Schools in Ondo State.

Academic performance and reflective thinking abilities are positively correlated, according to earlier studies (Kzlkaya and Aşkar, 2009). Additionally, descriptive studies have demonstrated that performance in science and mathematics is significantly influenced by problem-solving skills, which are linked to reflective thinking abilities (Baş, 2013; Baş and Kvlcm, 2013; Albayrak and Imşek, 2018). To compare the results in terms of high- or low-level learning outcomes, these studies lacked detailed information regarding the types of problems utilised in their accomplishment exams.

According to Adu (2014), there is a clear link between secondary school students' views towards Geography and their teachers' knowledge of the subject. The teacher's expertise and confidence shown while teaching is credited for this link. It emphasizes how important it is for teachers to have a thorough understanding of the material they intend to teach. Additionally, because it has the power to either positively or negatively affects students' attitudes towards learning, teacher self-efficacy is recognized as one of the most important variables in education. Student's attitude towards any subject depends on the extent to which the teacher's engage them in class activities. When teachers develop the belief that stated learning objectives can be achieved in the learner shows a personal interest in their students, and give adequate support, students' attitude will be geared towards learning. Teacher's self-efficacy is the confidence

that individual teacher has in his/her ability to achieve a task (Charles, 2012).

The teacher's self-efficacy contributed to students' attitude towards the learning of Geography. This signified that the attitude towards the learning of Geography was as a result of teacher's efficacious character that can create interest and positive mind set towards Geography. Followed by the teacher's self-efficacy is the content knowledge which as well contributed relatively to students' learning of Geography. This indicates that teacher understanding of the Geography content can intrigue the learners' attitude towards learning of Geography when good explanations and illustrations are provided. Lastly teacher's experience reflected a relative contribution to Geography students' attitude towards Geography, which means the more the number of years a teacher spent teaching, the more the experience gathered. These experiences gathered are used in shaping student's attitude towards learning of Geography.

On the other hand, there are differences in the contributions of teacher qualities to students' attitudes towards the learning of Geography in senior secondary schools. These differences might result from variations in the teacher's years of teaching experience and update of knowledge, different understanding of Geography curriculum content. Similarly, it can result from level of teacher's self-efficacy and difference in gender of the teachers. This might also be a result of differences in the level of the teacher's educational attainment.

Conclusion

Based on the findings of this study, the study concluded that teacher qualities (qualification, content knowledge, and self-efficacy) are important in improving students' academic performance, student attitude towards learning Geography, the qualities are also important in improving Geography students' reflective thinking in senior secondary schools in Ekiti State.

Recommendations

1. The study recommended that, to draw the attention of learners in learning Geography, teachers should use a variety of methodologies and teaching techniques. In a same vein, they ought to try to carry out educational activities that encourage students' enthusiasm for Geography.
2. The study also recommended that the employers of labour in senior secondary schools should make available training programs such as conferences, seminars, in-service trainings for regular updates of the teachers and encourage the Geography teachers to attend.

References

- Adu. F. (2014). *Assesment of records management practices among the administrative staff of University Education*, Winneba-Kumasi (UEW-K) and Mampong (UEW-M) Campuses. Master's Thesis, Kwame
- Afolabi, F. (2009). Teacher's attitude and gender factor as determinants of students performance in primary science. *An International Multi-disciplinary Journal*, 3 (1). 326-332.
- Agharuwhe, A. A., & Nkechi, M. U. (2019). Teacher's effectiveness and students' academic performance in public secondary schools in Delta State, Nigeria. *Stud Home Comm Sci*. 3 (2), 107-113
- Akinsolu, (2010). Teachers and students academic schools: implications for policy, performance in Nigerian secondary planning, *Florida Journal of Educational Administration*, 3 (2).
- Albayrak, M., & Şimşek, M. (2018). The predictive power to Mathematical success of belief and reflective thinking for problem solving. *Journal of Human Sciences*, 15 (2), 807-815.
- Baş, G. (2013). Investigating the correlation between elementary students' reflective thinking skills towards problem solving and academic success in science and technology course with structural equation modeling. *HAYEF Journal of Education*,

- 10(2), 1-12.
- Baş, G., & Kılıncı, Z. S. (2013). The correlation between reflective thinking skills towards problem solving and academic success in Mathematics and Geometry courses of high school students. *Journal of Kirsehir Education Faculty*, 14(3), 1-17.
- Charles, B. (2012). Qualities influencing teacher's adoption and integration on Information and Communication Technology (ICT) into teaching: *Journal of Education and Development*, 8(1), 7-25.
- Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014). *What makes great teaching?* Sutton Trust.
- Etiubon, R. U., & Benson, R. F. (2014). Department of Science Education, University of Uyo, Akwa Ibom State, Nigeria. *Nigeria Journal of Education and Practice*, 2(5), 24.
- Eze, E. (2021). Why secondary school geography students perform poorly in external examinations. *Journal of Geography*, 120(2), 51-60. <https://doi.org/10.1080/00221341.2020.1860114>
- FRN, (2013). *National Policy on Education*. Nigerian Educational Research and Development Council (NERDC) Yaba, Lagos, Nigeria.
- Grossman, S. (2017). *Craft knowledge and the education of teachers*. Review of research in education, 18(1), 59-74
- Kızılkaya, G., & Aşkar, P. (2009). The development of a reflective thinking skill scale towards problem solving. *Education and Science*, 34(154), 82-92.
- Mathematics in Nigeria*. Unpublished Ph.D. Thesis, Department of Science Education, Ekiti State University
- Mushtaq, I., & Khan, S. (2017). Qualities affecting students' academic performance. *Global Journal of Management and Business Research*, 12(9), 56-64
- Odunaike, K. O., Ijaluola, K. O., & Amoda M. B. (2013). Empirical analysis of teacher's gender and secondary school students' academic performance. *EconPapers* 3(3), 355-362.
- Ojukwu, M. O. (2021). Perception of students on causes of poor performance in Chemistry in external examinations In Umuahia North Local Government Of Abia State, *International Journal of Education & Literacy Studies*, 4(1), 202-213
- Olofin, S. O. (2019). *Effects of Kolawole's problem-solving teaching strategy and teacher's characteristics on the academic performance of senior secondary school students in*
- Omonije, A. S. (2016). *Teacher qualities as predictors of students learning outcomes in senior secondary Economics in Ondo State*. Unpublished MA.ED Thesis. Department of Arts and Social Science Education Obafemi Awolowo University Ile Ife. Osun State.
- Onyekuru, & Josephat, (2013). Teaching effectiveness of secondary school teachers in Emohua Local Government Area of Rivers State, Nigeria. *European Scientific Journal*, 9(28), 135-138.
- Pampaka, M., Kleanthous, I., Hutcheson, G. D., & Wake, G. (2011). *Measuring Mathematics self-efficacy as a learning outcome, research in Mathematics education*, 13:2, 169-190 retrieved from: <http://dx.doi.org/10.1080/14794802.2011.585828>
- Puttick, S. (2015). *Geography teachers' subject knowledge: An ethnographic study of three secondary school geography departments*. University of Oxford.
- Rice, J. K. (2010). *The impact of teacher experience: Examining the evidence and policy implications*. National Center for Analysis of Longitudinal Data in Education Research.
- Smit, E., Tuithof, H., Savelsbergh, E., & Béneker, T. (2023). Geography teachers' pedagogical content knowledge: A systematic review. *Journal of Geography*, 122(1), 20-29.
- Tok, Ş. (2008). The effects of reflective thinking activities in science course on academic achievements and attitudes toward science. *Elementary Education Online*, 7(3), 557-568.
- West African Examination Council, (2017). May/June 2017 Chief Examiners Report on Geography. Lagos, Nigeria.