

Factors Affecting Teaching and Learning of Geography in Senior Secondary Schools in Jere and MMC Local Governments of Borno State, Nigeria

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Abstract

This study investigates factors influencing the effective teaching and learning of Geography in senior secondary schools within Borno State, Nigeria. A survey design was adopted. The population of the study comprised of 157 students and 40 teachers. A questionnaire and a pro former were used for data collection. Data collected were analyzed using frequency counts, percentages, mean and Pearson Product Moment Correlation Coefficient. Findings revealed that, there is positive perceptions regarding the influence of teachers' advanced degrees, specialized training, and practical experience on the quality of Geography education. Additionally, the study explores the impact of teachers' attitudes, emphasizing the significance of enthusiasm, effective communication, and support in creating a conducive learning environment. Furthermore, the analysis delves into the correlation between teachers' qualifications and students' academic performance, highlighting a statistically significant positive relationship. The results also revealed that, teachers' qualifications, availability and effective utilization of instructional materials, teachers' attitude and students' attitude have significant influence on students' academic performance in senior secondary schools. The study therefore recommended that; government should provide a professional development program for Geography teachers which will ensure that teachers remain well-equipped to deliver high-quality instruction.

Keywords: *Students' Attitude, Teachers' Qualification, Instructional Materials, Academic Performance*

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Background to the Study

Geography education in senior secondary schools plays a pivotal role in shaping the geospatial awareness and critical thinking skills of students, contributing to their overall academic development. As students engage with the subject, the effective dissemination of geographical knowledge faces challenges influenced by both systemic and contextual factors. Scholars such as Bolaji *et al.*, (2021) have highlighted the importance of considering regional peculiarities when examining educational practices, and this perspective is particularly pertinent when exploring the teaching and learning of Geography in Borno State (Shehu *et al.*, 2018).

Geography is a vital subject in the senior secondary school curriculum in Nigeria, as it provides students with a broad understanding of the physical and human world around them. It is also a subject that can help students to develop critical thinking and problem-solving skills. However, there are a number of factors that can affect the teaching and learning of Geography in senior secondary schools (Onuoha *et al.*, 2021).

One of the main factors affecting the teaching and learning of Geography is the availability of qualified teachers. According to Musa (2013), many Geography teachers in Borno State are not adequately qualified, or they lack the necessary experience and training to teach the subject effectively. This can lead to students not being taught the material properly, or not being taught it in a way that is engaging and interesting (Opoku, 2021). Another important factor is the availability of resources. Geography is a subject that requires the use of a variety of resources, such as maps, globes, atlases, and other teaching aids. However, as highlighted by Abdullahi (2014), many schools in Borno State lack these resources, or they have insufficient quantities of them. This can make it difficult for teachers to teach the subject effectively, and it can also make it difficult for students to learn the material (Chang, & Wu, 2018).

The teaching and learning of Geography in senior secondary schools in Borno State, Nigeria, confront a spectrum of challenges that warrant careful examination. Despite the inherent importance of Geography in fostering spatial awareness, critical thinking, and a holistic understanding of the world, there exists a gap in understanding the specific factors that impede the effectiveness of Geography education in this region. The identified issues encompass both systemic and contextual dimensions, influencing the quality of education and the overall academic experience for students (Adeyemo, 2010).

Systemic challenges may include inadequacies in curriculum design, instructional resources, and teacher training programs. The curriculum may not align optimally with the diverse geographical and cultural context of Borno State, hindering students' engagement and comprehension. Additionally, limited access to updated instructional materials and insufficient training for educators may further hamper the delivery of high-quality Geography education. According to Shehu *et al.*, (2018), contextual challenges are deeply rooted in the sociocultural and economic landscape of Borno State. The region has faced significant disruptions due to factors such as insurgency, displacement, and economic instability. These external factors can contribute to a dissonance between the intended curriculum and the day-

to-day experiences of students, affecting their ability to relate to and apply geographical concepts.

Furthermore, the statement of the problem necessitates an exploration of how these challenges intersect and amplify one another, creating a complex web that impedes the achievement of educational objectives in Geography. Understanding and addressing these issues are crucial for educators, policymakers, and stakeholders in devising targeted interventions and reforms that can enhance the teaching and learning of Geography in senior secondary schools (Shehu *et al.*, 2018).

The study on will offers intuitions that can greatly improve the quality of geography education in senior secondary schools. By identifying challenges faced by both teachers and students, the research contributes to enhancing education through curriculum improvements, and more effective teacher training programs. The purpose of this exploration is to critically analyze the existing body of literature on the subject, drawing attention to the interconnected factors that shape the educational landscape in senior secondary schools. By incorporating insights from research conducted by scholars like Taura and Ibrahim (2021) on the challenges of curriculum implementation in Nigerian schools, we aim to provide a comprehensive understanding of the factors affecting teaching and learning of Geography in Borno State's senior secondary schools.

Objectives of the Study

The objectives of the study are to:

1. Determine the influence of teachers' qualification on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.
2. Determine the influence of availability and effective utilization of instructional materials on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.
3. Determine the influence of teachers' attitude toward teaching Geography on effective teaching and learning in senior secondary schools in Borno State, Nigeria.
4. Determine the influence of students' attitude toward Geography on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.

Research Questions

The following research questions were answered:

1. Does teachers' qualification influence effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.
2. Does availability and effective utilization of instructional materials influence effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.
3. Does teachers' attitude toward teaching of Geography influences effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.
4. Does students' attitude toward learning Geography influences effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.

Hypotheses of the Study

- H₀₁: Determine the influence of teachers' qualification on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.
- H₀₂: Determine the influence of availability and effective utilization of instructional materials on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.
- H₀₃: Determine the influence of teachers' attitude toward teaching of Geography on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.
- H₀₄: Determine the influence of students' attitude toward Geography on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.

Materials and Methods

The study adopted correlational research design and the population of the study covers all senior secondary school's students offering geography and Geography teachers in Jere and MMC LGAs while simply random sampling was used to select four (4) schools. The four (4) sampled schools in Jere and MMC have collective population of twenty-two thousand nine hundred and thirty-three (22,933) students, forty (40) of students in each school sampled will be randomly selected for the study. About 160 questionnaires were used for the student's part, the teachers in each of the sampled schools were also serve with 40 questionnaires. In all about 200 copies of the questionnaire were used for the study. Two types of instruments were used in the study. A questionnaire and a pro former. The questionnaire was used to collect primary data eliciting personal information and the views of geography teachers and students on the teaching and learning of Geography while the pro former was used to collect the WAEC result of the students from 2017-2022. Data generated from this research were analyzed using frequency count, simple percentage and mean in answering the research questions. The mean value of 3.5 and above was considered as strongly agree, mean value of 2.50 to 3.49 was considered as agree, mean value of 1.00 to 1.49 was considered disagree while the mean value of 0.99 and below was considered as strongly disagree. In addition, Pearson Product Moment Correlation Coefficient was used to test hypothesis one to four.

Results

Research Question One: Does teachers' qualification influence effective teaching and learning of Geography in senior secondary schools in MMC and Jere LGAs of Borno State, Nigeria.

Table 1: Influence of teachers' qualification on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.

S/N	Statement	Responses				Mean
		SA	A	DA	SD	
1.	Teachers' advanced degrees in geography positively influence the quality of geography education.	44 (28.03%)	69 (43.95%)	33 (21.02%)	11 (7.01%)	2.93
2.	Specialized training in geography enhances teachers' ability to convey complex concepts effectively.	51 (32.48%)	71 (45.22%)	21 (13.38%)	14 (8.92%)	3.01
3.	Teachers' participation in ongoing geography -related professional development improves teaching methods	61 (38.85%)	68 (43.31%)	19 (12.10%)	9 (5.73%)	3.15
4.	Teachers' practical experience in geography positively influences students' interest and engagement	52 (33.12%)	73 (46.50%)	22 (14.01%)	10 (6.37%)	3.06
5.	Teachers with a comprehensive understanding of the latest geographic technologies contribute to more effective education	39 (24.84%)	41 (26.11%)	68 (43.31%)	9 (5.73%)	2.47

The table illustrates responses and mean values regarding the impact of teachers' qualification on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria. For item 1, focusing on teachers' advanced degrees in geography, the mean value of 2.93 falls within the "agree" range, indicating general agreement that advanced degrees positively influence the quality of geography education. Similarly, items 2, 3, and 4 all have mean values within the "agree" range, suggesting positive perceptions of specialized training, ongoing professional development, and practical experience in geography in enhancing teaching effectiveness. However, for item 5, exploring the contribution of teachers with a comprehensive understanding of the latest geographic technologies, the mean value of 2.47 is slightly below the threshold for agreement, indicating a more neutral stance among participants. Overall, the findings suggest a positive perception of the influence of teachers' qualifications on effective teaching and learning of Geography, with some variation in the degree of agreement across specific aspects.

Research Question Two: Does availability and effective utilization of instructional materials influence effective teaching and learning of Geography in senior secondary schools in MMC and Jere LGAs of Borno State, Nigeria.

Table 2: Influence of availability and effective utilization of instructional materials on effective teaching and learning of Geography in senior secondary schools in MMC and Jere LGAs of Borno State, Nigeria

S/N	Statement	Responses				Mean
		SA	A	DA	SD	
1.	The availability of instructional materials in Geography classrooms positively impacts students' understanding of geographic concepts.	42 (26.75%)	65 (41.40%)	39 (24.84%)	11 (7.01%)	2.88
2.	Teachers effectively integrate instructional materials into their Geography lessons to enhance learning experiences.	53 (33.76%)	59 (37.58%)	32 (20.38%)	13 (8.28%)	2.97
3.	Students actively engage with instructional materials during Geography lessons, contributing to a more interactive learning environment	44 (28.03%)	68 (43.31%)	39 (24.84%)	6 (3.82%)	2.96
4.	The use of modern technology as instructional materials in Geography classrooms enhances students' interest and participation in the subject	67 (42.68%)	55 (35.03%)	32 (20.38%)	3 (1.91%)	3.18
5.	Adequate training and support for teachers in the effective utilization of instructional materials positively affect the overall quality of Geography education	45 (28.66%)	67 (42.68%)	22 (14.01%)	23 (14.65%)	2.85

Table 2 presents the influence of availability and effective utilization of instructional materials on the effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria. Participants express generally positive perceptions, as indicated by mean values for five key statements. Notably, there is agreement that the availability of instructional materials positively influences students' understanding of geographic concepts (mean = 2.88), and teachers effectively integrate these materials to enhance learning experiences (mean = 2.97). Additionally, participants recognize the importance of students' active engagement with instructional materials during Geography lessons, contributing to a more interactive learning environment (mean = 2.96). The use of modern technology as instructional materials is strongly endorsed, with a mean value of 3.18, signifying that it significantly enhances students' interest and participation in the subject. Adequate training and support for teachers in the effective utilization of instructional materials are also viewed positively, with a mean value of 2.85, indicating participants' belief that such support positively affects the overall quality of Geography education.

Research Question Three: Does teachers' attitude toward teaching of Geography influences effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.

Table 3: Influence of teachers' attitude toward teaching of Geography on effective teaching and learning in senior secondary schools in Borno State, Nigeria.

S/N	Statement	Responses				Mean
		SA	A	DA	SD	
1.	The teacher's enthusiasm for teaching Geography positively influences my interest in the subject	38 (24.20%)	65 (41.40%)	29 (18.47%)	25 (15.92%)	2.74
2.	The teacher's approach to teaching Geography encourages active participation and engagement in the classroom	38 (24.20%)	58 (36.94%)	41 (26.11%)	20 (12.74%)	2.73
3.	The teacher's attitude toward students impacts the effectiveness of Geography teaching and learning	26 (16.56%)	69 (43.95%)	43 (27.39%)	19 (12.10%)	2.65
4.	The teacher's ability to communicate complex Geography concepts makes the subject more understandable and enjoyable	43 (27.39%)	61 (38.85%)	36 (22.93%)	17 (10.83%)	2.83
5.	The teacher's encouragement and support positively contribute to my overall performance in Geography	51 (32.48%)	63 (40.13%)	27 (17.20%)	16 (10.19%)	2.95

Table 3 explores the influence of teachers' attitudes on the effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria. Generally, there is agreement that teachers' enthusiasm positively influences students' attitude in the subject (mean = 2.74), and their teaching approach encourages active participation (mean = 2.73). Respondents also acknowledge the significance of teachers' attitudes toward students, indicating an impact on the overall effectiveness of Geography teaching and learning (mean = 2.65). Moreover, participants recognize the role of teachers' communication skills in making complex Geography concepts more understandable and enjoyable (mean = 2.83). The importance of teachers' encouragement and support is underscored, with a mean value of 2.95, signifying a positive contribution to students' overall performance in Geography.

Research Question Four: Does students' attitude toward learning Geography influences effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria.

Table 4: Influence of students' attitude toward Geography on effective teaching and learning of Geography in senior secondary schools in MMC and Jere LGAs of Borno State, Nigeria.

S/N	Statement	Responses				Mean
		SA	A	DA	SD	
1.	The enthusiasm of students towards Geography positively affects their engagement in class activities	42 (26.75%)	57 (36.31%)	33 (21.02%)	25 (15.92%)	2.74
2.	Students' interest in Geography correlates with their overall academic performance in the subject	37 (23.57%)	71 (45.22%)	39 (24.84%)	10 (6.37%)	2.86
3.	A positive attitude of students toward Geography enhances their willingness to participate in Geography-related extracurricular activities	36 (22.93%)	59 (37.58%)	38 (24.20%)	24 (15.29%)	2.68
4.	Students' attitude towards Geography significantly influences their interaction with Geography teachers	51 (32.48%)	58 (36.94%)	37 (23.57%)	11 (7.01%)	2.95
5.	The perception of Geography as relevant and interesting by students contributes to a conducive learning environment	32 (20.38%)	69 (43.95%)	42 (26.75%)	14 (8.92%)	2.76

Table 3 investigates the impact of teachers' attitudes on effective teaching and learning of Geography in senior secondary schools in Borno State, Nigeria. The responses reveal a generally positive perception among participants regarding specific aspects of teachers' attitudes. Participants agree that teachers' enthusiasm for the subject positively influences student interest (mean = 2.74) and that their teaching approach encourages active participation (mean = 2.73). Additionally, there is consensus that teachers' attitudes toward students impact the effectiveness of Geography teaching and learning (mean = 2.65). The ability of teachers to communicate complex concepts is seen as enhancing the subject's understandability and enjoyment (mean = 2.83). Furthermore, participants believe that teachers' encouragement and support positively contribute to overall performance in Geography (mean = 2.95). These findings collectively emphasize the complex role of teachers' attitudes in shaping the dynamics of Geography education in senior secondary schools in the specified region.

Hypothesis One: There is no significant relationship between teachers' qualification and students' academic performance in senior secondary schools in Borno State, Nigeria.

Table 5: Pearson Product Moment Correlation Coefficient on the relationship between teachers' qualification and students' academic performance in senior secondary schools in Borno State, Nigeria

Variable	Mean	SD	r	p-value	Remark
Teachers' Qualification	14.66	0.87	0.734	0.000	Reject H ₀₁
Academic Performance	7.36	1.61			

Table 5 presents the Pearson Product Moment Correlation Coefficient analysis on the relationship between teachers' qualification and students' academic performance in senior secondary schools in Borno State, Nigeria. The findings suggest a statistically significant positive correlation between teachers' qualification and students' academic performance in senior secondary schools in Borno State, indicating that as teachers' qualification levels increase, there is a corresponding improvement in students' academic performance ($r=0.734$, $p\text{-value}=0.000$). Therefore, hypothesis one is rejected.

Hypothesis Two: There is no significant relationship between availability and effective utilization of instructional materials and students' academic performance in senior secondary schools in Borno State, Nigeria

Table 6: Pearson Product Moment Correlation Coefficient on the relationship between teachers' availability and utilization of instructional materials and students' academic performance in senior secondary schools in Borno State, Nigeria

Variable	Mean	SD	R	p-value	Remark
Availability of Instructional materials	15.95	1.54	0.649	0.000	Reject H_{02}
Academic Performance	7.36	1.61			

Table 6 presents the results of the Pearson Product Moment Correlation Coefficient analysis on the relationship between teachers' availability and utilization of instructional materials and students' academic performance in senior secondary schools in Borno State, Nigeria. Findings suggest a statistically significant positive correlation between the availability and utilization of instructional materials by teachers and students' academic performance ($r=0.649$, $p\text{-value}=0.00$). Therefore, hypothesis two is rejected.

Hypothesis Three: There is no significant relationship between teachers' attitude and students' academic performance in senior secondary schools in Borno State, Nigeria

Table 7: Pearson Product Moment Correlation Coefficient on the relationship between teachers' qualification and students' academic performance in senior secondary Schools in Borno State, Nigeria.

Variable	Mean	SD	r	p-value	Remark
Teachers' attitude	16.15	1.45	0.741	0.00	Reject H_{03}
Academic Performance	7.36	1.61			

Table 7 illustrates the Pearson Product Moment Correlation Coefficient analysis examining the relationship between teachers' attitude and students' academic performance in senior secondary schools in Borno State, Nigeria. Results revealed that, there is statistically significant positive relationship between teachers' attitude and students' academic performance in Geography ($r=0.741$, $p\text{-value}=0.000$). Therefore, hypothesis three is rejected.

Hypothesis Two: There is no significant relationship between students' attitude toward Geography and academic performance in senior secondary schools in Borno State, Nigeria

Table 8: Pearson Product Moment Correlation Coefficient on the relationship between students' attitude toward geography and academic performance in senior secondary schools in Borno State, Nigeria.

Variable	Mean	SD	r	p-value	Remark
Students' attitude	16.32	1.53	0.639	0.000	Reject H ₀₄
Academic Performance	7.36	1.61			

Table 8 presents the results of Pearson Product Moment Correlation Coefficient on the relationship between students' attitude toward geography and students' academic performance in senior secondary schools in Borno State, Nigeria. Findings suggest a statistically significant positive correlation between students' attitude toward geography and academic performance ($r=0.693$, $p\text{-value}=0.000$). Therefore, hypothesis four is rejected.

Conclusion

The study investigates factors influencing the effective teaching and learning of Geography in senior secondary schools. Findings of this analysis indicate positive perceptions regarding the impact of teachers' qualifications. The responses suggest a generally agreeable stance, particularly concerning the influence of teachers' advanced degrees, specialized training, ongoing professional development, practical experience, and technological proficiency on the overall quality of Geography education. While there is a consensus on several aspects, there are degree variations in agreement levels across specific dimensions. The integration of technology in teaching, engagement with instructional materials, and the importance of teacher training and support in utilizing these materials all emerge as contributing factors to the overall quality of Geography education in the region. These findings collectively underscore the intricate interplay of teachers' qualifications and instructional resources in shaping the educational landscape for Geography in senior secondary schools in Borno State.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Government should provide a professional development program for Geography teachers which will ensure that teachers remain well-equipped to deliver high-quality instruction.
2. Government should promote the integration of modern technology as instructional materials in Geography classrooms.
3. Government should encourage and support teachers in fostering enthusiasm for Geography.
4. Teaching service board should ensure a consistent and well-maintained supply of instructional materials for Geography classrooms.

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