



Influence of Classroom Interaction Patterns on Academic Performance of Upper Basic Social Studies Students in Delta State

By

OSHIOWEMO, Irialuose Agatha¹, DANIA, Peter O.², OGHENEAKOKE, Edore Clifford³
¹²³Department of Social Science Education, Social Studies Unit, Faculty of Education,
Delta State University, Abraka, Nigeria

Abstract

This study was conducted to investigate classroom interaction patterns and its influence on academic performance of Upper Basic Social Studies students in Delta State. The study adopted a correlational research design. The study was guided by three research questions and three hypotheses. The sample size of the study was 1023 Basic 9 students who were selected from 11 schools, using the stratified random sampling techniques. A questionnaire and Social Studies performance scores were the instruments used for data collection. Cronbach's alpha analysis was used to analyze the questionnaire items at a significant level of $P < 0.5$. Pearson coefficient of determination was used to answer the research questions, while Pearson Product Moment Correlation was used to test the null hypotheses at 0.05 significant level. Findings of the study showed that, there was a significant relationship between teacher-learner interaction, learner-learner interaction and academic performance of Upper Basic Social Studies students in Delta State; school location had influence on students' academic performance. Based on the findings, it was recommended that: teacher-learner and learner-learner interaction should be encouraged to enhance students' academic performance, there should be programmes designed to ascertain the impact of school location as it influences teacher-learner and learner-learner classroom interaction in order to improve the academic performance of students.

Keywords:

Academic Performance, Social Studies, Classroom Interaction Patterns, Teacher-Learner Interaction, Learner-Learner Interaction School Location.

Introduction

Social Studies is concerned with how people interact with one another in the society. Social Studies Education prepares students to live cooperatively with one another, to appreciate one's culture, and to be well-versed in existing norms, values, privileges, and responsibilities. The ability to achieve self-realization, good human relationships, well-behaved citizens, national consciousness, national unity, political and social development, science and technological advancement is provided by Social Studies education (Osakwe, 2010).

Academic performance is a grade that represents the amount of learning produced by the teacher-student interaction based on the set goals. It may be thought of as a quantitative and qualitative score. An effective teacher uses instruction to inspire, stimulate, and encourage students to assimilate instructional contents. They also encourage students to actively participate in classroom interaction and complete take-home assignments, all of which are necessary to produce high cognitive and effective outcomes in their students (Qasim et al., 2022). It means that it is impossible to achieve successful learning in school without effective teachers who can put the goals of education into practice.

Classroom interaction includes a teaching and learning process in which students are given some control over their own learning. As a result, they are more likely to value the importance of academic-related behaviour and to demonstrate greater internal motivation in their schoolwork (Umar, et al., 2018). Classroom interaction management includes things like created topic material, defined individual or classroom goals, controlled or codified behavior, and rewarding good behavior (Nnorom & Erhabor, 2019).

The school's location is the precise spot, rural or urban where it is situated. Nigerian rural life seems simpler than Nigerian metropolitan regions with many cultures. Urban locations may be more favored than rural places in terms of the provision of social amenities like electricity, piped water, and healthcare services. The same could be said for the provision of educational facilities and teachers. There may be differences in educational opportunities between urban and rural schools, which may impact students' academic performance (Effiom-Edem & Edoho, 2017). A school located in a village with nothing to facilitate students' learning or serve as a stimulator or motivator of learning may have negative impact on the level of students' understanding as well as the level of academic performance of students (Adebayo et al., 2018).

Statement of the Problem

The interaction between teacher and learners promotes active participation and motivates learners to learn. Effectiveness of classroom interaction depends on the ability of a teacher to manage the class. Despite the importance of Social Studies as a tool for preparing learners to be more humane, self-reliant, and contribute to the development of the nation, it has been observed that students do not participate affectively during classroom interaction. The inability of a teacher to be effective in the management of classroom affairs could hinder students from participating in classroom interaction. Due to the technicality and skills involved in teaching, it becomes a challenge for a teacher who lacks the needed skills to get all the learners involved during classroom interaction. It is assumed that poor classroom interaction patterns may have an influence on students' academic performance in Social Studies. Hence, the problem of this study is; What is the relationship between classroom interaction patterns and academic performance of Upper Basic Social Studies students in Delta State?

Purpose of the Study

The study's primary goal is to investigate the connection between Delta State upper basic social studies students' academic achievement and classroom interaction patterns. Specifically, the study seeks to;

1. determine the relationship between teacher-learner interaction and academic performance of upper basic Social Studies students in Delta State.
2. find out the relationship between learner-learner interaction and academic performance of upper basic Social Studies students in Delta State.
3. examine the relationship between classroom interaction patterns and academic performance of Upper Basic Social Studies students in Delta State as it relates to school location.

Research Questions

To guide the study, the following research questions were raised;

1. What is the relationship between teacher-learner interaction and academic performance of upper basic Social Studies students in Delta State?
2. What is the relationship between learner-learner interaction and academic performance of upper basic Social Studies students in Delta State?
3. What is the relationship between classroom interaction patterns and academic performance of Upper Basic Social Studies students in Delta State as it relates to school location?

Hypotheses

The following hypotheses were formulated to guide the study at 0.05 level of significance;

Ho1: There is no significant relationship between teacher-learner interaction and academic performance of upper basic Social Studies students in Delta State.

Ho2: There is no significant relationship between learner-learner interaction and academic performance of upper basic Social Studies students in Delta State.

Ho3: There is no significant relationship between classroom interaction patterns and academic performance of Upper Basic Social Studies students in Delta State as it relates to school location.

Classroom Interaction Patterns and Academic Performance of Students

Teachers and students must effectively communicate in the classroom utilizing interactive strategies that are most suitable to raising students' academic performance in order to support the process of knowledge exchange (Chrisantus, 2019). The term "classroom interaction pattern" refers to the manner in which students and teachers communicate in the classroom. It helps students improve their social and communication abilities. Classroom interaction has the potential to affect students' academic performance, teacher-student interaction in the classroom is an essential component of teachers' job. Classroom interaction is defined by Umar et al. (2018), as the culmination of all educational materials and teacher-student activities that occur in the classroom. Classroom contact changes students' behavior, promotes socialization, fosters curiosity and a good attitude, and helps them identify problems and learn how to solve them. Classroom interactions follow a customized, competitive, and cooperative structure. In cooperative learning, the achievement of an individual's

goal is positively correlated with the achievement of the group's goals. In other words, an individual's compensation is directly correlated with the caliber of the group's output (Nnorom and Erhabor, 2019). Atuboinoma and Amadi (2021), found that student academic performance was significantly impacted by classroom engagement. Examples of classroom interaction patterns employed in this study are learner-teacher and student-learner interactions.

Teacher-student interaction can take the shape of a student asking for help with unfinished assignments, in-class conversations, group projects, or when they require learning materials like books. Positive interactions between teachers and students create calmer, more pleasurable learning settings, which can enhance students' academic performance (Pöysä et al., 2019). For successful teaching and learning to occur, teacher-student interaction is essential. One of the most important aspects of a learning environment is the teacher-student interaction (Pennings et al., 2018). Positive interactions include meeting individual needs, providing a safe and structured learning environment, and fostering student engagement that is robust across different learning styles. Positive interactions can encourage students to actively participate in class, which can improve academic performance (Villasana et al., 2021). They can also improve students' motivation to learn, foster a sense of accomplishment and self-efficacy, and improve students' leadership qualities (Putwain et al., 2021; Zhan et al., 2021). They can also foster effective teaching in classrooms (Weizheng, 2019; Li & Yang, 2021). Even in student-centered learning platforms, teacher-learner interaction and dialogue can be beneficial (Alghasab et al., 2019).

Qasim et al. (2022) investigated how Pakistani secondary school students interacted with their teachers on chemistry. The study's findings demonstrated that student performance in chemistry was significantly impacted by classroom interaction. The outcome showed that pupils who interacted with others in the classroom more often did better academically than those who did not. According to a study on interpersonal meaning conducted by Tyas and Widhiyanto (2020) at the eleventh grade of Vocational High School, instructors and students negotiate interpersonal meaning through speech function, which benefits students' academic achievement. Tiwari (2021) studied communicative language classroom interactions in Nepalese public secondary schools. According to the study, teachers might impact students' learning and teaching processes by posing questions to them. The study also showed that teachers usually rely on questioning pupils while they are teaching and learning.

The term "learner-learner interaction" describes how students collaborate with one another to complete academic assignments inside or outside of the classroom (Benson-Ogbu et al., 2022). Learning is a shared experience, learner-learner interaction helps groups of students to collaborate on tasks and work in small groups to complete assignments (George & Christopher, 2018). According to Ajaja and Mezieobi's (2018) study, when students engaged in peer interaction during learning activities, their performance improved significantly. While Bahandari (2021), demonstrated that classroom interaction patterns had an impact on students' performance, Benson-Ogbu et al. (2022), found that learner-learner interaction had a substantial impact on students' mean performance score in biology. Yan and Changwu (2021), looked at the connection between academic performance and the way English-majoring teachers in China regarded their classroom environments. The study's findings indicated that student involvement in the classroom affected their academic achievement. In Kogi East Local Government Area of Kogi State, Nigeria, Emmanuel et al. (2019), looked into classroom interaction and students' learning results in physics: Implication for teaching-skill development for physics instructors. The study's findings demonstrated the impact of classroom interactions on students' academic achievement in physics. Students will not find learning to be fascinating if it occurs in a vacuum, claim Bruner and Jerome (2016).

Academic Performance of Students as it Relates to School Location

Urban areas are better favoured than rural ones when it comes to the distribution of educational resources and teachers. As a result, there are differences in the learning opportunities offered in Nigerian schools. A school's location is referred to as its site; it can be either rural or urban. Mhilwa (2015); Umar and Samuel (2018), found that urban students outperformed rural students in Basic Science. Obro (2018), found no significant differences in the academic performance of rural and urban students. Onoyase (2015), found a significant difference in the academic performance of students based on location. Eraikhuemen (2014), conducted a study on the effects of gender and school location on senior secondary students' academic performance in mathematics in Edo State. Urban areas perform better than rural ones when it comes to the distribution of educational resources and teachers. As a result, there are differences in the learning opportunities offered in Nigerian schools. A school's location is referred to as its site; it can be either rural or urban. Mhilwa (2015); Umar and Samuel (2018), found that urban students outperformed rural students in Basic Science. Essien (2017), evaluated the influence of school location on students' academic progress in Social Studies. The data demonstrated that school location had no influence on academic success in Social Studies. Ellah and Ita (2017) studied the connection between students' academic performance in English language in secondary school and the location of their school. For this study, a survey research approach was adopted. The findings indicated that, based on the location of the schools, there were notable differences in the academic performance of the pupils in the English language.

In the Akamkpa local government region, Effiom-Ede and Edoho (2017), looked into how pupils' attitudes toward science and mathematics were affected by their school's location. The study's findings demonstrated that there was no discernible difference between urban and rural schoolchildren's academic achievement. In Cross River State, Nigeria, Ovat et al. (2021) conducted a research on the academic performance, class size, and school location evaluation of upper basic pupils. The study's conclusions demonstrated that students' academic achievement in science classes was highly impacted by their school's location.

Based on the literature that is currently available, it was found that the majority of studies on classroom interaction patterns demonstrated a positive relationship between effective student participation during teaching-learning activities and students' academic performance. However, there are disagreements regarding the impact of school location on students' academic performance, and no research has examined the impact of school location in the relationship between classroom interaction patterns and academic performance of Upper Basic Social Studies students in Delta State. The literature is therefore ambiguous. Thus, more research is required to determine how school location affects the association between Upper Basic Social Studies students' academic performance and classroom interaction patterns in Delta State.

Methodology

Correlational research design was used for this investigation. All forty-three thousand and twenty-two (43,022) Basic 9 (JSS III) learners from Delta State's four hundred and sixty-eight (468) public Upper Basic schools, which provided the data collecting subject, made up the study's population. Using the stratified random sampling approach, a total of 1,023 Basic 9 learners were selected from 11 Upper Basic schools in each of Delta State's three senatorial districts. The study used two instruments: a questionnaire titled "Social networking and Academic Performance of Upper Basic Social Studies Students in Delta State" and academic performance scores from teachers-made tests on Social Studies students, which were validated by the Delta State Ministry of Basic and Secondary Education. Data

were gathered using a four-point Likert scale: strongly agreed (SA) = 4 points, agreed (A) = 3 points, disagreed (D) = 2 points, and severely disagreed (AD) = 1 point. The validity measures used in the study to assess if the instrument was appropriate for measuring the intended outcomes were face and content validity.

The "Classroom Interaction Patterns and Academic Performance Scale" questionnaire's internal consistency reliability was estimated using Cronbach's alpha analysis. In the process, one hundred (100) Basic 9 learners were given the questionnaire by the researcher. Despite not being included in the sample, the learners shared characteristics with the ones chosen for the main research. The instrument's items were examined and assessed for significant level of $P < 0.5$. The reliability value of the teacher-learner interaction was $r = 0.5$, $p < 0.5$, and the learner-learner interaction scale was $r = 0.6$, $p < 0.5$, showing that the instrument was helpful and reliable. The researcher and helpers made a diligent effort to wait and get copies of the questionnaire from the students as soon as they finished it in order to guarantee a high rate of return. 975 out of the 1023 questionnaire copies that were distributed were recovered at the end of the exercise, representing a 95% retrieval rate. The 975 copies of the questionnaire that were recovered served as the basis for the data analysis. While the null hypotheses were tested at the 0.05 level of significance using the Pearson Product Moment Correlation Coefficient, the research questions were addressed using the Pearson Coefficient of Determination. The Pearson statistical approach was employed in this study because, it aids in determining the strength and direction of a link between variables in a research.

Results

Question 1: What is the relationship between teacher-learner interaction and academic performance of Upper Basic Social Studies students in Delta State?

Table 1: Mean Scores and Standard Deviation Analysis on teacher-learner interaction and academic performance.

Variables	N	Mean	SD	r	r ²	r ² %	Remark
teacher-learner interaction	975	2.51	.79	.207	0.043	4.3%	Positive relationship
academic performance		2.95	.78				

Source: SPSS Output, 2024

The academic performance and teacher-learner interaction mean scores and standard deviation analysis of Delta State Upper Basic Social Studies students are displayed in Table 1. The finding indicates a positive correlation between academic success and teacher-student contact. Positive mean scores beyond the benchmark mean value of 2.50 are demonstrated by the mean scores of 2.51 and 2.95 above the benchmark mean value. Additionally, the Upper Basic Social Studies students at Delta State demonstrated a good correlation between teacher-learner contact and academic achievement, as seen by the standard deviation scores of .79 and .78. Furthermore, the students' variation in stated viewpoints was not far different.

Research Question 2: What is the relationship between learner-learner interaction and academic performance of Upper Basic Social Studies students in Delta State?

Table 2: Mean Scores and Standard Deviation Analysis on Learner-learner Interaction and Academic Performance.

Variables	N	Mean	SD	r	r ²	r ² %	Remark
Learner-learner Interaction	975	2.55	1.08	.263	0.069	6.9%	Positive relationship
Academic performance		2.83	.995				

Source: SPSS Output, 2024

The academic performance and learner-learner interaction mean scores and standard deviation analysis of Delta State Upper Basic Social Studies students are displayed in Table 2. The finding indicates that the academic performance of Delta State Upper Basic Social Studies learners is positively correlated with learner-learner interaction. This is demonstrated by the standard deviation scores of 1.08 and .995, as well as the mean scores of 2.55 and 2.83 above the benchmark mean value. Given that their variances were close together, the standard deviation score demonstrated a favorable correlation between learner-learner contact and academic achievement of Delta State's Upper Basic Social Studies pupils.

Source: 2024 SPSS Output.

Research Question 3: What is the relationship between classroom interaction patterns and academic performance of Upper Basic Social Studies students in Delta State as it relates to school location?

Table 3: Mean Scores and Standard Deviation Analysis on classroom interaction patterns and academic performance as it relates to school location.

Variables	N	Mean	SD	r	r ²	r ² %	Remark
Classroom interaction patterns	975	2.76	1.15	.392	0.154	15.4%	Positive relationship
academic performance as it relates to location		3.31	.909				

Source: SPSS Output, 2024

Table 3 presents the academic performance and mean scores, along with a standard deviation analysis, of Upper Basic Social Studies students in Delta State, with respect to school location. The finding indicates that, with regard to school location, there is a favourable correlation between academic performance and classroom interaction patterns. The results demonstrate that there is a positive correlation between the academic performance of Upper Basic Social Studies students in Delta State and the classroom interaction patterns, with mean scores of 2.76 and 3.31 above the benchmark mean value and standard deviation scores of 1.15 and .909 indicating this relationship.

Test of Hypotheses

HO1: There is no significant relationship between teacher-learner interaction and academic performance of Upper Basic Social Studies students in Delta State.

Table 4: Correlation result for the significant relationship between teacher-learner interaction and academic performance.

		Teacher-learner interaction	Academic performance
Teacher-learner interaction	Pearson Correlation	1	.207**
	Sig. (2-tailed)		.000
	N	975	975
Academic performance	Pearson Correlation	.207**	1
	Sig. (2-tailed)	.000	
	N	975	975

**. Correlation is significant at the 0.05 level (2-tailed).

According to Table 4, the Pearson's r value is. Academic achievement and teacher-student contact have a favourable association (.207). Additionally, at the 0.05 threshold of significance, an alpha value of .000 denotes a statistically significant connection. Consequently, the null hypothesis is disproved. This indicates that Delta State Upper Basic Social Studies students' academic performance and teacher-student contact are significantly correlated.

Ho2: There is no significant relationship between learner-learner interaction and academic performance of Upper Basic Social Studies students in Delta State.

Table 5: Correlation result for the significant relationship between learner-learner interaction and academic performance of Upper Basic Social Studies students in Delta State.

		Learner-learner interaction.	Academic performance
Learner-learner interaction.	Pearson Correlation	1	.263**
	Sig. (2-tailed)		.000
	N	975	975
Academic performance	Pearson Correlation	.263**	1
	Sig. (2-tailed)	.000	
	N	975	975

**. Correlation is significant at the 0.05 level (2-tailed).

Table 5 indicates that the Pearson's r value of .263 reveals that there is a positive linear relationship learner-learner interaction and academic performance. Also the P-value of .000 indicates a statistical significant relationship. Therefore, the null hypothesis is rejected. This means that there is a

significant relationship between learner-learner interaction and academic performance of Upper Basic Social Studies students in Delta State.

Ho3: There is no significant relationship between classroom interaction patterns and academic performance of Upper Basic Social Studies students in Delta State as it relates to school location.

Table 6: Correlation result for the significant relationship between classroom interaction patterns and academic performance of Upper Basic Social Studies students in Delta State as it relates to school location.

	Classroom interaction patterns	Academic performance as it relates to location
Classroom interaction patterns.	1	.392**
Pearson Correlation		.000
Sig. (2-tailed)		975
N	975	975
Academic performance as it relates to location	.392**	1
Pearson Correlation		.000
Sig. (2-tailed)		975
N	975	975

**. Correlation is significant at the 0.05 level (2-tailed).

According to Table 6, there is a positive link between classroom interaction patterns and academic performance in respect to school location, as indicated by the Pearson's r correlation value of .392. Furthermore, the statistical significance of the association between classroom interaction patterns and academic achievement with respect to location is indicated by the P-value of .000. It follows from this that the null hypothesis is disproved. In conclusion, there is a strong correlation between the academic achievement of Upper Basic Social Studies students in Delta State and the classroom interaction patterns in connection to the school's location.

Discussion of Results

The first findings showed that academic performance of Delta State Upper Basic Social Studies students is positively correlated with teacher-student interaction. The result of this study suggests that classroom interactions between teachers and students have an impact on students' academic performance. The outcome demonstrates that there was a welcoming environment in the classroom that allowed students to engage with their instructor throughout class activities, and this improved the students' academic performance. This finding is in line with the works of Pennings et al. (2018); Alghasab et al. (2019); Pöysä et al. (2019); Weizheng (2019); Tyas and Widhiyanto (2020); Vantieghem et al. (2020); Putwain et al., (2021); Villasana et al. (2021); Tiwari (2021) and Zhan et al., (2021); Qasim et al. (2022), which showed that teacher-learner interaction had a positive influence on the academic performance of students.

The study's second finding showed that student academic performance and learner-learner interaction are positively correlated. It demonstrates how student-teacher interaction affects students' academic performance. The result shows that students' academic performance improves when they are given the opportunity to connect with one another during class activities, such as group projects, debates, and

idea exchange. This research stance is supported by Naimah's (2016) study, which asserted that classroom contact is crucial to the process of teaching and learning. The results of Bruner and Jerome (2016), Ajaja and Mezieobi (2018), George and Christopher (2018), Emmanuel et al. (2019), Nnorom and Erhabor (2019), Bahandari (2021), Yan and Changwu (2021), and other studies that demonstrated how learner-learner interaction fosters a sense of self-efficacy that improves students' academic performance are also supported by this finding.

The third finding demonstrates that, when it comes to school location, there is a correlation between Upper Basic Social Studies students' academic performance and classroom interaction patterns in favour of urban students in Delta State. This may be because urban schools are given preference over rural schools when it comes to the supply of instructors and educational resources; as a result, learning possibilities may vary depending on the location of the school. This result is consistent with those of Chianson (2014), Ellah and Ita (2017), Adebayo et al. (2018), and Babawale (2019), who discovered a statistically significant disparity in the academic performance of students attending urban and rural schools. In contrast, Essien (2017), discovered that students' academic performance was unaffected by the location of the school. Furthermore, the results of this study are at odds with those of studies conducted by Obro (2018) and Akpomudjere (2020), which discovered no discernible difference in the academic performance of rural and urban kids.

Conclusion

Classroom interaction patterns had influence on the academic performance of Upper Basic Social Studies students in Delta State. This was arrived at based on the results of the tested hypotheses which indicated that:

- i. Teacher-learner interaction had positive relationship with Upper Basic Social Studies students' academic performance.
- ii. Learner-learner interaction had positive relationship with Upper Basic Social Studies students' academic performance.
- iii. School location had influence on the academic performance of students. Particularly, it was observed from the results of the study that students attending Upper Basic schools in urban areas preferred engagement in classroom interaction patterns more than rural students, and it had positive influence on their academic performance.

Recommendations

The study based on its findings, puts forward the following recommendations:

- i. In order to speed up and improve the learning process for the students, teacher-student interaction should be promoted. Therefore, in order to improve the academic performance of Upper Basic Social Studies students, the learning process should be innovative and dynamic, including both the instructor and students.
- ii. Interaction between students should be a part of the learning process, students should be encouraged to share ideas in order to learn from one another and to provide a platform on which they can develop their ability to collaborate on group projects when necessary.
- iii. In order to raise the academic performance of Delta State Upper Basic Social Studies students, programs should be created to determine how school location affects teacher-learner and learner-learner classroom interaction.

REFERENCES

- Adebayo, O. O., Daniel, O. O., & Oladipupo, F. C. (2018). Impact of school location on academic performance of Home Economics students in junior secondary school certificate examination, College of Education, Ikere Ekiti State, Nigeria. **International Journal of Research and Analytical Reviews**, 5(2), 1585-1589.
- Ajaja, R., & Mezieobi, S. A. (2018). Effect of cooperative learning strategy on students' performance in Social Studies. **International Journal of Education and Evaluation**, 4(9), 96-103.
- Alghasab, M., Hardman, J., & Handley, Z. (2019). Teacher-student interaction on wikis: Fostering collaborative learning and writing. **Learning, Culture and Social Interaction**, 21, 10–20. <https://doi.org/10.1016/j.lcsi.2018.12.002>
- Akpomudjere, O. (2020). Effects of school location and teachers' quality on students' performance in business studies examination in public secondary schools in Sapele Local Government Area of Delta State. **Higher Education Studies**, 10(2), 114-121. <https://doi.org/10.5539/hes.v10n2p114>
- Atuboinoma, A. J., & Amadi, E. (2021). Perceived influence of classroom interaction on students' academic performance in senior secondary schools in Rivers State. **International Journal of Innovative Education Research**, 9(2), 95-104.
- Babawale, K. O. (2019). School location as a correlate of students' academic performance among senior secondary schools in Isokan Local Government Area of Osun State. **International Journal of Academic Multidisciplinary Research**, 3(11), 5-8.
- Bahandari, B. L. (2021). English teachers' perspectives on classroom interaction: A phenomenological study. **ELT Choutari Blog Article**. <https://eltchoutari.com/2021/01>
- Benson-Ogbu, R. E., Abonyi, O. S., Aja, L., & Ogbonna, E. (2022). Effects of classroom interaction patterns on secondary school achievement in ecology. **Journal of Education and Practice**, 13(27), 16-21.
- Bruner, J., & Jerome, U. (2016). **The culture of education**. Cambridge: Harvard University Press.
- Chianson, L. (2014). Teacher variable and learning environment. In F. B. Murray (Ed.), **The Teacher Educator's Handbook: Knowledge-Based Preparation of Teachers** (2nd ed., pp. 262-276). San Francisco: Jossey-Bass.
- Effiom-Edem, J. N., & Edoho, E. A. (2017). Influence of school location on students' attitudes towards Mathematics and Basic Science. **British Journal of Education**, 5(10), 76-85.
- Ellah, K. E., & Ita, P. M. (2017). Correlational relationship between school location and students' academic performance in English Language in Nigerian secondary schools. **International Journal of Scientific and Research Publications**, 7(9), 381-384.

Emmanuel, E. A., Ibrahim, M. D., & Agaptus, B. C. O. (2019). Classroom interaction practice and students' language outcomes in physics: Implication for physics teachers. **Journal of Education and e-Learning Research**, 6(3), 96-106.

Essien, E. E. (2017). Influence of school location on students' academic achievement in Social Studies in the College of Education, Cross River State, Nigeria. **Journal of Research in Science and Technology**, 7(2), 72-86.

George, M. J., & Christopher, W. (2016). Analyzing student-student interaction from cooperative learning and systemic functional perspective. **Electronic Journal of Science Education**, 4(4), 234-249.

Ikechukwu, A. (2021). The effect of school location on students' academic achievement in senior secondary physics based on the 5E learning cycle in Delta State, Nigeria. **International Journal of Math, Science and Technology Education**, 9(1), 57-73.

Mhiliwa, J. A. (2015). The effect of school location on learners' academic performance: A case of community secondary schools in Makambako town council, Njombe. (Master's Thesis, Open University of Tanzania).

Nnorom, N. R., & Erhabor, P. O. (2019). Effect of classroom interaction patterns on secondary school students' cognitive achievement in Biology. **International Journal for Cross-Disciplinary Subjects in Education (IJCDES)**, 10(1), 3980-3985.

Obro, S. (2018). Comparative effect of simulation-games and brainstorming instructional strategies on the academic performance of students in secondary school Social Studies. (Unpublished PhD Thesis, Delta State University, Abraka, Nigeria).

Onoyase, S. O. (2015). The impact of school management and environment on students' output quality in Oyo State secondary schools. (Unpublished PhD Thesis, University of Ibadan, Nigeria).

Osakwe, E. O. (2010). **Social Studies and integrated national development in Nigeria**. Ibadan: Kraft Ltd Publisher.

Ovat, S. V., Nwogwugwu, C. E., & Idika, D. O. (2021). Assessment of school location, class size, and academic performance of upper basic students in Cross River State, Nigeria. **Global Journal of Educational Research**, 20(2), 145-151.

Pennings, H. J., Brekelmans, M., Sadler, P., Claessens, L. C., van der Want, A. C., & van Tartwijk, J. (2018). Interpersonal adaptation in teacher-student interaction. **Learning and Instruction**, 55, 41–57. <https://doi.org/10.1016/j.learninstruc.2017.09.005>

Putwain, D., Li, L., & Yang, S. (2021). Exploring the influence of teacher-student interaction on university students' self-efficacy in the flipped classroom. **Journal of Education and Learning**, 10(2), 84-90.

Qasim, S., Mohammed, S., & Imran, T. (2022). Teacher-student interaction towards chemistry at the secondary level. **International Journal of Education and Learning**, 7(2), 167-174.

- Tiwari, K. D. (2021). Classroom interaction and communicative language teaching in public secondary schools in Nepal. **Indonesian Journal of English Language Teaching and Applied Linguistics**, 5(2), 373-386.
- Tyas, G. A., & Widhiyanto, W. (2020). Interpersonal high-meaning negotiated teacher-student classroom interaction in vocational school. **ELT Forum: Journal of English Language Teaching**, 9(2), 87-96.
- Umar, U. S., & Samuel, R. I. (2018). School location as a correlate of students' achievement in Basic Science. **International Journal of Innovative Education Research**, 6(3), 14-17.
- Villasana, M., Adel, A. I., Silva, P., & Flores, O. (2021). University teaching in times of confinement: The light and shadows of compulsory online learning. **Sustainability**, 13(1), 1–16. <https://doi.org/10.3390/su13010375>
- Weizheng, Z. (2019). Teacher-student interaction in EFL classrooms in China: Communication accommodation theory perspective. **English Language Teaching**, 12(12), 99-111. <https://doi.org/10.5539/elt.v12n12p99>
- Yan, M., & Changwu, W. (2021). The relationship between perceived classroom climate and academic performance among English-major teacher education students in Guangxi, China: The mediating role of student engagement. **Frontiers in Psychology**, 10(1), 1-13.
- Zhan, Z., Wu, Q., Lin, Z., & Cai, J. (2021). Smart classroom environments affect teacher-student interaction: Evidence from a behavioural sequence analysis. **Australasian Journal of Educational Technology**, 37(2), 96-109.