



## ENGLISH TEACHER QUALIFICATION AS DETERMINANT OF SECONDARY SCHOOL STUDENTS' ACADEMIC PERFORMANCE IN ANAMBRA STATE

Onumonu, Uche Sandra<sup>1</sup>

Department of Arts & Social Science Chukwuemeka Odumegwu Ojukwu University  
Igbariam Campus

Dr. Nonyem Ifediorah Okeke<sup>2</sup>

Department of Educational Foundations Chukwuemeka Odumegwu Ojukwu University,  
Igbariam Campus

### ABSTRACT

*The study examined teachers' qualification and instructional materials as determinants of secondary school students' academic performance in Anambra State. Three research questions guided the study and three null hypotheses were tested at 0.05 level of significance. The study adopted a correlational research design. The population for the study consisted of 28749 English teachers and 28,000 Senior Secondary SS 11 students in 267 Public secondary schools in Anambra State. Two Instruments were used for data collection; English teachers qualification scale and students' academic performance. The instruments were subjected to face and construct validation. Three experts, two specialized in Educational Management and one in Measurement and Evaluation, all in the Department of Educational Foundations, Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. The reliability was determined by the trial testing, subjected to internal consistency reliability technique using Cronbach Alpha. The sample of the study was 600 respondents which comprised 300 English teachers and 300 SS11 students. Simple random sampling technique was adopted in selecting teachers and students from the public secondary schools in the six educational zones across the state. The instruments were administered to the respondents by the researcher with the help of three research assistants who were briefed on how to administer and retrieve the instruments from the sampled respondents. Six hundred (600) copies of the questionnaires were administered by the researcher with six research-assistants who were briefed on how to administer and retrieved the completed copies on the spot. The research questions were answered using Pearson Product Moment Correlation Coefficient while hypotheses were tested at .05 level of significance using test of significance of Pearson Product Moment Correlation Coefficient. After analyzing the data, the following findings were made. The study findings showed a moderate positive relationship and significant positive relationship between teachers' qualification and academic performance. Based on the findings of the study it was recommended among others that the state government through the Post Primary School Service Commission (PPSSC) should employ strictly qualified teachers of English to teach in Senior Secondary Schools in Anambra State. It was noticed that students performed better in English when taught by teachers who had English teachers' qualification in English Language. This is because the qualifications of these teachers, from training expose them to rational thinking, for proper analysis of situations before taking decisions. The implications of the study, limitations and suggestions for further studies were highlighted.*

**Keywords:** English teachers', Qualification and Academic Performance.



## **Introduction**

Education is responsible for the incredible growth, development and evolution of man in science, technology, economy, politics and leadership; production and manufacturing, sports and entertainment; language use is English language since annals. It is safe to say that without progressive efforts laid in history to constantly build on knowledge, man would have still remained in the catacomb of primitive low life existence. Once teaching and learning is mentioned, three things come to mind: the teacher, the medium or instructional material, and the learner. These move in complimentary motion to establish academic success through their performance in the society. In the educational parlance, feat manifests through academic performance. Academic performance refers to a student's success in meeting short or long-term goals in education. Narad and Abdullah, (2016) defined academic performance as the knowledge gained by the student which is assessed by marks or educational goals set by students and teachers to be achieved over a specific period of time.

The attainment of academic excellence of students through making them portray better academic performance is the foremost motive of academic institution. Okegbile in Nsini and Emeya (2015), stated that academic performance is terminology used while determining learner's success in formal education, which is measured through factors exerting influence essentially. That is to say academic performance is the measuring of students' accomplishment across a range of academic areas. Therefore, academic performance should be considered to be a multifaceted construct that comprises different domains of learning. The field of academic performance is very wide-ranging and covers a broad variety of educational outcomes; the definition of academic performance depends on the indicators used to measure it. Academic performance is often measured through examinations or continuous assessment. However, Steinmayr et al. (2014) stated that there are various general indicators of academic performance such as procedural and declarative knowledge acquired in an educational system, more curricular-based criteria such as grades or performance on an educational performance test, and cumulative indicators of academic performance such as educational degrees and certificates. In almost all societies, either developed, or underdeveloped, academic performance plays a vital role in every person's life. In Anambra State, academic performance for all educational systems is going through a general measure, that is, grades or performance (e.g. GPA) performed on several test or examinations. Furthermore, York et al (2015) in Adinna (2024) stated that students' success are used interchangeably with academic performance. It encompasses academic achievement, attainment of learners' objectives, acquisition of desired skills and competences.

The researchers opined that academic performance is how one can take part and succeed in every education system. Academic performance has become an index of child's future in this highly competitive world. Academic performance has been one of the most important goals of the educational process. Globally, there has been an increasing concern in the education sector on how to ensure that students learn optimally at school and achieve academic excellence in their academic pursuits. In Nigeria, there has been a nationwide cry by the stakeholders in education on the fallen standard of education. The growing rate of failure of secondary school students in the yearly release of Senior School Certificate Examination (SSCE) has raised a lot of questions about the standard of education in Nigeria. The poor academic achievement of school students



which has been on the increase in both internal and external examinations has generated so many accusations and counter accusations by various groups and individuals. However, the academic performance of secondary school (SS II) students in English Language in Senior Secondary School Certificate examination (SSCE) in Nigeria especially in Anambra State in recent years has not been very encouraging. Information from West African Examination Council Chief Examiner's Report (2019) showed that the academic performance of students in English Language in Nigeria has been very poor. Also, it was observed that statistical records in the performance of secondary school students in computer studies, which is one of the vocational subjects in external examination such as West African Secondary School Certificate Examination (WASSCE) and National Examination Council (NECO) is very discouraging. The evidence of this perception is based on the reports of Chief Examiners of West African Examination Council (WAEC) for English Language from 2020-2023. Secondary school students on the other hand are usually in their formative period of learning and English language is learnt as a second language in the country so, their cognitive, affective and psycho-motive domain requires proper handling. They need to be exposed to a variety of English language learning pedagogies which only a motivated English language teacher can offer. They need to be well tutored and equipped with the knowledge and skills to pilot the affairs of this country.

Regardless of the importance of the English language, it is both disheartening and disappointing that despite the amount of time allotted to its teaching at the secondary school level, the performance of many students has remained low and poor. Over the years, many Nigerians have been aware of, and have been complaining about the mass failure of students in English language precisely in secondary schools. This is so because nobody has been able to specifically unravel the reason or reasons for the mass failure. Some scholars are of the view that it could be traced to lack of qualified professional and dedicated teachers. Others think that it could be traced to poor teaching facilities, poor working conditions of teachers, poor teaching and learning environments. Others blame the students for lack of interest in learning, instead diverting to trading and other sundry wealth pursuit. Others indict lack of discipline among students especially in public schools. However the poor academic performances of students in both internal and external examinations are generally attributed to the school environment, their attitudes to academic and teachers' qualification.

Hammond and Anderson (2020) defined English teacher qualifications as the credentials and general intellectual skills a teacher holds. However, a qualified teacher is one who holds a teaching certificate by the state, owns at least a bachelor's degree from a four-year institution and well qualified in his area of specialization. English Teachers' qualification is a particular skill or type of experience or knowledge someone possesses to make him suitable to teach (Zuzovsk, 2019). Teachers who are qualified, certified and competent, and of a good moral standing need to be employed to teach the students. Aina and Olanipekun (2015) defined English teacher's qualification as a certain talent, type of experience, or knowledge that qualifies someone to teach. As a result, a teacher's qualification might encompass all the skills necessary for effective teaching and learning. Formal education, experience, subject area knowledge, pedagogy studies, training duration, certification/licensing, and professional development are examples of such talents. All these definitions concur that English teachers' qualification reflect teachers' formal education, experience, licensure and certification. Furthermore, Gulled (2020) investigated that



English teachers' qualification were operationalized as Formal education, certification and teaching experience. The study findings indicated that teacher qualifications affect to the academic performance of pupils in public primary schools in Hargeisa District.

English teachers' qualification is expected to play a pertinent role in boosting the academic performance of students. Literally, English teachers qualification can be measured from two perspectives: formal education and licensure (Jacob, 2021). This study explored English teachers' qualification in terms of formal education and certification. Formal education are various academic degrees a teacher can possess to qualify him or her to teach. In Nigeria, these are Bachelor's, master's, doctorate degrees, other certificates, and diplomas inclusive. However, only degree holders are qualified to teach in senior secondary schools. Some scholars believed that higher degree showed positive correlation with students' academic performance. In other hand, certification is a measure of teachers' qualification that combines both aspects of knowledge about the subject matter with teaching and learning. However Jacob and John (2020) opined that teachers' academic qualification as a predictor of attitude and academic performance in geography of senior secondary school students in Adamawa state, Nigeria'. The asserted that the recruitment of unqualified teachers to teach in Nigeria's institutions of learning has been a persistent and age-long problem affecting students' learning. How findings revealed that the regression statistic showed that teachers' qualifications did predict students' academic performance and the predictive value was significant. Certified teachers are usually those who have graduated from accredited teacher education programs Zuzovsky (2019). These categories of teachers are also required to complete an induction program or pass a national teacher examination test to obtain a license. Hence this will qualified them to be an effective English language teacher.

English Teacher qualification have been linked to academic performance of students by some shallow researches. It is paramount to put those assertions and general believe to test so as to supply data to improve on our academic input and output. Qualification denoted fitness for purpose through fulfillment of necessary conditions such as attainment of a certain age, taking of an oath, completion of required schooling or training, or acquisition of a degree or diploma, teaching on the other hand has been defined as a process of imparting knowledge or instructing someone as to know how to do something; or cause someone to learn or understand something by example or experience (Mark, 2022). To become eligible teacher, the person must have the capacity to perform in class. Performance to this research is a degree of competence one has to do in order to achieve the set goals and standards.

Therefore, with in the context of this study, the researcher defined English teachers qualification as one of the academic and professional degrees that allows someone to work as a registered teacher in primary, secondary and post- secondary school. Wayne and Young (2013) noted that having a higher degree matters in teaching. Moreover, it has also been argued that teachers with higher educational qualifications are more effective than those with lower qualifications and that skilled teachers are more productive than unskilled. The unqualified teacher on the other hand may be lacking in these qualities and therefore may not be able to make students develop the required skills. Tella (2016) reported that a teacher who doesn't have both the academic and the professional qualifications to teach would undoubtedly have a negative influence on the attitude and teaching of their students. Therefore, if the English teachers in secondary schools of Anambra State are not qualified, they are not likely to arouse students' interest and make them



learn effectively. This may negatively affect their performance in external examinations and subsequently culminate in a negative attitude towards English language. Usman (2017) supported the preceding views by contending that the worrisome deficiency of unqualified teachers could be responsible for the pitiable performance observed among students. Lack of qualified teachers to properly handle the lesson seems to have giving rise to low performance of teachers in public secondary schools in Anambra State. It is against these background that this study deemed it necessary to examine English teacher qualification and instructional materials as determinant of secondary school students' academic performance in Anambra State.

### **Statement of the Problem**

In the past few years, there have been myriads of academic problems confronting the secondary school educational system in Anambra State with special emphasis on the performance of students. Academic performance has been not only the best yardstick to measure academic success, but also an instrument in determining further academic pursuit and its relevance to the individual student and the nation as a whole.

Evidence from literature has shown a continuous poor academic performance of most secondary school students in Nigeria as worrisome. The researcher has observed that there seem to be an increase in poor academic performance of secondary school students especially in external examinations like National Examination Council (NECO), West Africa Examination Council (WAEC) and Universal Tertiary Matriculation Examination (UTME) among other. The critical secondary education stakeholders (teachers, parents, education administrators) in Anambra State have blamed the teachers for adopting obsolete teaching methods during classroom activities. They shifted the blame to unqualified teachers in English language which have resulted to a decline in students' performance in school subject such as English Language.

Furthermore, no adequate learning can take place in English language without proper recruiting qualified English teachers to handle the content of study. The claims made by the researcher is yet to gather adequate research evidence. In view of this, the problem of this present study is English teachers' qualification as determinants of secondary school students' academic performance.

### **Purpose of the Study**

The general purpose of the study is to examine English teachers' qualification as determinants of secondary school students' academic performance in Anambra state. Specifically the study sought to:

1. Examine the relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language

### **Research Questions**

The following research questions guided the study:

1. What is the relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language?





### **Hypotheses**

This one null hypotheses was tested at 0.05 level of significance:

1. There is no significant relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language

### **Methodology**

Correlational research design was adopted for the study. The study was conducted in public secondary schools in Anambra State. The population of the study comprised of 28,749 English teachers and 28,000 students. The sample of the study comprised of 600 respondents. 300 English teachers and 300 SS2 students. Simple random sampling technique was used for this study. Two instruments were used for the study.

Two Instruments were used for data collection. English Teachers Qualification Scale and Students' Academic Performance Test. The first instrument titled "English Teacher Qualification Scale", it elicited information on the levels of qualification of English teachers which includes BSc. Ed, ME.d and Ph.d which contains 10-items. These items were placed on 4-point scale of

Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) and numerical value of 4,3,2 and 1 respectively. The second instrument titled "Students' Academic Performance" was measured using scores in English language test. The instrument was validated by three experts two specialized in Educational Management and one in Educational Measurement and Evaluation, all from Department of Educational Foundations, Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. The instruments were administered to the respondents with the help of three research assistants. Out of 600 copies of the questionnaire administered to the respondents, 540 (90%) were recovered while 60 (10%) were lost on transit or not properly filled. The (10%) loss did not adversely affect the analysis result. The retrieved copies of questionnaires were used for data analysis. The reliability of the instrument was determined using Cronbach Alpha formula. Data were analyzed using Pearson Product Moment Correlation Coefficient while hypotheses was tested at 0.05 level of significance using test of significance of Pearson Product Moment Correlation Coefficient, and the decision rule is if the P-value is less than the significance level ( $\alpha = 0.05$ ), REJECT the null hypothesis in favor of the alternative. If the P-value is greater than the significance level ( $\alpha = 0.05$ ), we fail to reject the null hypothesis.



**Research Question One:** What is the relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language?

**Table 1:** Summary of Pearson Product Moment Correlation Coefficient Analysis English Teachers' Qualification and Academic Performance Among Senior Secondary School (SSII) Students in English Language

Correlations				
QUALIFICATION		QUALIFICATION	Students' Academic Performance	Remark
Bsc.Ed	Pearson Correlation Sig. (2-tailed)	1	0.55**	Moderate positive correlation
		0.01		
		280	280	
	Students' Academic Performance Pearson Correlation Sig. (2-tailed)	0.55**	1	
		0.01.		
		280	280	
MSC,ED	Pearson Correlation Sig. (2-tailed)	1	0.58**	Moderate positive correlation
			0.03.	
		250	250	
	Students' Academic Performance Pearson Correlation Sig. (2-tailed)	0.58	1	
		0.03		
		250	250	
Ph.D	Pearson Correlation Sig. (2-tailed)	1.	0.63*	Moderate positive correlation
			0.02.	
		10	10	
	Students' Academic Performance Pearson Correlation Sig. (2-tailed)	0.63**	1	
		0.02..		
		10	10	

Analysis from Table 1 showed that there is a moderate positive correlation of Pearson Product Moment Correlation Coefficient Analysis between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language. This deduction comes as a result of the 'r' having a moderate positive relationship value,  $r = 0.55$  ,  $0.58$  and  $0.63$  for Bsc.ed, MSC,ED , and Ph.d respectively.  $n = 600$ . Hence, the study concluded that there exists a moderate positive relationship between teachers' qualification and academic performance among senior secondary school (SSII) students in English Language.



### Hypotheses Testing

**Hypothesis One:** What is the relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language

**Table 2:** Test of significance of Pearson Product Moment Correlation Coefficient analysis Between English Teachers' Qualification and Academic Performance Among Senior Secondary School (SSII) Students in English Language

**Correlations**

QUALIFICATION		QUALIFICATION	Students' Academic Performance	Decision
Bs.A.Ed.	Pearson Correlation	1	0.55**	Significant
		0.01		
	N	16	16	
	Students' Academic Performance	Pearson Correlation	1	
MSC,Ed	Pearson Correlation	0.55**	0.01.	Significant
		0.01.		
	N	16	16	
	Students' Academic Performance	Pearson Correlation	0.58**	
Ph.D	Pearson Correlation	1	0.03.	Significant
		0.03.		
	N	28	28	
	Students' Academic Performance	Pearson Correlation	1	
Ph.D	Pearson Correlation	0.58	0.03	Significant
		0.03		
	N	28	28	
	Students' Academic Performance	Pearson Correlation	0.63**	
Ph.D	Pearson Correlation	1.	0.02.	Significant
		0.02.		
	N	42	42	
	Students' Academic Performance	Pearson Correlation	1	
Ph.D	Pearson Correlation	0.63**	0.02..	Significant
		0.02..		
	N	42	42	
	Students' Academic Performance	Pearson Correlation	1	

The result of the test of significance of Pearson-Moment Correlation Coefficient from Table 2 above showed a significant relationship between Pearson Product Moment Correlation Coefficient analysis between teachers' qualification and academic performance among senior secondary school (SSII) students in English Language with  $r=$  and  $p\text{-value}=0.00$ . Since  $p\text{-value}$  0.00 is less than 0.05, the study rejects the null hypothesis and do not reject alternative hypothesis that there is significance relationship between clan oriented culture and teachers' job commitment in Public Secondary Schools in Anambra State





### **Summary of the Finding**

The study finding is summarized as follow:

The study showed a moderate positive relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language. The study also showed a significant positive relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language.

### **Discussion**

Findings on the relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language showed a moderate positive relationship between English teachers' qualification and academic performance among senior secondary school (SSII) students in English Language. The study also showed a significant relationship between teachers' qualification and academic performance among senior secondary school (SSII) students in English Language. This finding is in line with Jacob and John (2020) that revealed regression statistic that teachers' qualifications did predict students' academic performance and the predictive value was significant. Also in agreement with Gulled (2020) whose research findings indicated that English teacher qualifications affect the academic performance of pupils in public primary schools in Hargeisa District. The results above showed that students performed better in English when taught by teachers who had English teachers qualification in English Language, This is because the qualifications of teachers from training expose them to rational thinking for proper analysis of situations before taking decisions. Thus, teachers' professional qualification is a symbol of one's intellectual maturity and experience in decision-making for the best course of action in the teaching profession.

### **Conclusion**

The study findings showed a moderate positive relationship between English teachers' qualification and academic performance. among senior secondary school (SSII) students in English Language .The study concluded that English teachers' qualification positive and significant determinant of secondary school students' academic performance in Anambra state

### **Recommendations**

The following recommendations are made:

1. The state government through the Post Primary School Service Commission (PPSSC) should employ strictly qualified graduate teachers of English to teach in senior secondary schools in Anambra State. Students performed better in English when taught by teachers who had English teachers' qualification in English Language, This is because the qualifications of teachers from training expose them to rational thinking for proper analysis of situations before taking decisions.



## **REFERENCES**

- Adinna, P. I. & Anene C.O (2024). *Study habits as correlate of academic achievement among secondary schools in Anambra State*.
- Aina, J.K. & Olanipekun, S.S., (2015). A review of teachers' qualifications and its implication on students academic achievement in Nigeria schools. *International Journal of Educational Research And Information Science*, 2(2), 10-15.
- Adinna, I. P., & Onyekwelu, R. A. (2021). Evaluation Of Supervision Related Challenges on The Implementation of National Policy on Secondary Education in Anambra State Nigeria. *Online Journal of Arts, Management and Social Sciences (OJAMSS)*; 5(2), pg.272 – 281
- Adinna, P. I. and Okaforcha, C. C. (2019). Administrative practices for enhancing implementation of continuous assessment in basic education in Anambra State. *Research Journal of Education*, 7(5), 1-10. <http://www.researchjournali.com/journals>.
- Anushiem, U.M.J. (2017). A Constitutionality of the Exclusive Jurisdiction of the Investments and Securities Tribunal (IST). *African Journal of Constitutional and Administrative Law (AJCAL)* 1; 64-77 available in google scholar at <http://www.journals.ezenwaohaetorc.org>
- Anushiem, U.M.J. (2022). The Intervention of Finance Act on Taxation of Non-Resident Companies in Nigeria: An Appraisal', *Chukwuemeka Odumegwu Ojukwu University Journal of Private and Public Law (COOUJPPL)* 4 (1).
- Azubuike, O. R. (2024). Perceived Influence of Welfare Packages on Teachers Job Performance in Public Secondary Schools in Anambra State. *International Journal of Education, Research and Scientific Development*; 5(3), 1-14. <https://www.ijresd.org>
- Azubuike, O. R. (2024). Principals' school Plant and Personnel Management Practices as Predictors of School Improvement in Secondary Schools in Anambra State.
- Ekwesianya, A. A., Okaforcha, C., & Okeke, N. I. (2020). Principals' Capacity-Building Needs for Conflict Resolution in Secondary Schools in Anambra State. *International Journal of Innovative Science and Research Technology*; 6 (5); 513-516.
- Ezeaku S. N. (2019). Creative Quality of Educational Managers in functional Education as a panacea to Achieving Sustainable Development in Anambra State, Nigeria. *Journal of Education, Society and Behavioral Science* Vol. 31 (issued) (Pg. 1-9).
- Ezeaku, S. N. Appraisal of Strategies Towards Upgrading Staff Personnel Management in Public Secondary Schools: Implications for Policy Makers in Anambra State, Nigeria.
- Gulled M. Y (2020). Teacher qualifications and academic performance of pupils in public primary schools in Hargeisa District. *Educational Quarterly Reviews*, 4 (3) 50-67.
- Hammond, W.& Anderson, M. (2020). *Principles and practice of educational research*. Barkhadle Printing Press.
- Jacob, L. (2021). Teacher quality and student performance. *Education Policy Analysis Archives*, 8(1) 20-45.
- Mark, K. (2022). *Vision articles on reasons for poor performance of students in secondary schools in Luwero*. Routledge.



- Narad, A., & Abdullah, B (2016). Academic performance of senior secondary school students: influence of parental encouragement and school environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities Special Issues*, 3 (2), 12-19
- Nwankwo, I. N. (2014). Students' Participation in Decision Making and Its Implications for Educational Leadership. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)* 5(3):362-367.
- Nwankwo, I. N. (2024). Management Of Science and Technology Education for National Development: A Case of Secondary Schools in South East of Nigeria. *African Journal of Educational Management, Teaching and Entrepreneurship Studies*, 12(2), 14-29.
- Ojimba, C. C. (2024). Effect Of National Industrial Court and Industrial Arbitration Panel in Resolution of Corporate Dispute. *African Journal of Educational Management, Teaching and Entrepreneurship Studies*, 13(2).
- Okaforcha, C. C. and Okeke I. N (2018). Extent of Principals fund management practices for effective implementation of entrepreneurial studies in secondary schools in Awka Education Zone. *Journal of Emerging Trends in Educational Research and Polity Study (JETERAPS)* vol. 10 (2).
- Okaforcha, C. C. and Okeke, N. I. (2020) School Leadership as a correlation of teachers' job satisfaction in public secondary schools in Awka Education zone of Anambra State. *Unizik Journal of Educational Research and Policy Studies (UNIJERPS)* January- June 2020 Vol. 1.NO. 1 Pg. 1-7.
- Okeke Ifediorah, N. and Okaforcha, C. C. (2018). Extent of principals' classroom instructional supervision for effective teaching in secondary schools in Anambra State. *Journal of Emerging Trends in Educational Research and polity study (JETERAPS)* vol. 10 (2).
- Okoye, A. C. (2021). Strategies for developing sustainable business education for economic development. *International Journal of Management Studies and Social Science Research*, 3(2), 76-81.
- Onyekwelu, R. A. (2024). Teachers' Professional Competencies as correlates of Student's Academic Achievement in Public Secondary Schools in Anambra State. *AJSTME*, Volume. 10 (3); 404-411; <https://www.ajstme.com.ng>
- Onyekwelu, R. A., & Adinna, P. I. (2022). Influence Of Covid-19 On the Nigeria Secondary Education System: Effective Virtual Learning, The Way Forward (A Case Study of Anambra State). *Journal of Educational Research & Development*, 5(2).
- Steinmayr, R., Anaja M, Anne F, W & Wwiding L.W (2014). Academic Achievement, July 2014. DOI:10.1093/obo/9780199756810-0108, in book Education
- Tella, A. (2016). Teachers' variable as predictors of primary school pupil's academic performance. *Paper presented at the 1st African Conference on Universal Basic Education*. University of Botswana Press.
- Usman, O. (2017). Influence of shortage of human resources on the effective instruction of mathematics in secondary schools. *The Journal of WCCI Nigeria Chapter Forum*, 4(2), 176-184.
- Wayne, J., & Youngs, P. (2013). Teacher characteristics and student performance gains: A review. *Review of Educational Research*, 73(1), 89–122.
- Zuzovsky, R. (2019). Teachers' qualifications and their impact on students' achievement findings from TIMMS 20013 date in Israel. *IERI Monograph Series: Issues and Methodologies in Large Scale Assessment*, 4(2) 37-62.