



# FOSTERING SELF-EFFICACY AND PERFORMANCE IN STUDENTS' EXPOSITORY WRITING USING 5E MODEL OF INSTRUCTION IN OKENE, KOGI STATE

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#### Abstract

The study investigated the effect of 5E model of instruction on Senior Secondary One (SS1). Students' self-efficacy and performance in expository writing. The study used quasi-experimental pretest post-test design. All the SS1 students of all the public secondary schools in Okene constituted the population. The sample comprised of 106 students in two intact classes of two schools randomly drawn from the six public schools. One of the intact classes was the experiment group while the other formed the control group. The study lasted for 5 weeks. Essay Achievement Test (EAT) and Self-efficacy Questionnaire (SEQ) were used for data collection. The instruments were validated by experts in the Faculty of Education, Prince Abubakar Audu University, Anyigba and subjected to reliability tests. The EAT had a reliability of 0.79 while the SEQ had a reliability coefficient of 0.84. Data collected were analyzed using the mean and standard deviation to answer the research questions and t-test to test the hypotheses at 0.05 alpha level. Findings revealed that 5E model of instruction enhanced students' performance in expository essay and increased students' self-efficacy belief. Based on the findings, the study recommended among others that the model should be used by English teachers in teaching of essay in the classrooms.

#### Introduction

Language among humans is used for communication and communication is indispensable to man's existence. This is because it is the bedrock of human relation and communication will be only effective when meaning is conveyed. It therefore means that one has to be proficient in language if meaning is to be conveyed. To be proficient in a language calls for competence in four language skills – listening, speaking, reading and writing. Listening and speaking are

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referred to as oracy skills while reading and writing are literacy skills. However, of the four language sills, writing is probably the most difficult because it requires the knowledge of the other skills (Ezeokoli&Igubor, 2016). Writing requires many processes which are to be performed simultaneously (Yisa, et al, 2020) and it is a complex skill that is not naturally acquired.

For personal, academic and professional growth of man, writing is essential. For learners to progress in school, they have to exhibit a satisfactory degree of writing proficiency and fluency (Cumming &Ptscher, 2015). Most often, assessment of students' performance is done through writing. Students take written examination, continuous assessment tests and written assignments; they also engage in writing of notes in the classroom. Writing is also a means of evaluating students' knowledge and academic capability. One of such examinations is the Senior Secondary School Certificate Examination (SSCE) which is conducted by examining bodies as the West African Examinations Council (WAEC) and the National Examinations Council (NECO). English is a compulsory subject in the school system and candidates are to obtain at least credit pass in the subject to make both academic and professional progress in Nigeria. Without at least a credit pass in English, candidates cannot gain admission into higher institutions. To do well in the subject, candidates must possess good writing abilities.

The above is essential because paper 1 of the SSCE examination which requires a direct application of writing skills carries the highest mark. Paper 1 is divided into three sections: A (Essay writing – 50 marks), B (Comprehension – 40 marks) and C (Summary – 30 marks). The essay writing section demands the following types of writing – letter, speech, narration, descriptive, debate/argumentative, report, article, creative writing and expository writing. Of all these, the expository (which includes process, cause and effect, description, compare and contrast and sequence) writing is more consistent in being tested.

According to Ezeokoli and Igubor (2016), expository essay is used to give or explain information about a topic. It gives facts, explains ideas or defines conditions. Despite the centrality of this essay type, it is often neglected for either creative writings or simple narrations in our classrooms. Lack of exposure of students to expository writing may place the students at a disadvantage in their later years of schooling and will deprive them of the ability of writing this type of essay.

Different types of expository essay have different structures and each structure presents different writing challenges, making it complex. Hence, it has been advocated that expository writing be explicitly taught (Muodumogu & Odey, 2006). Of the different structures, the focus of this paper is the cause and effect of text structure. This structure explains why an event happened and what resulted from the event. The essay may focus on cause alone, effect or may combine both. What influenced the choice of this is the need to improve students' performance in expository essay in examinations (especially in SSCE). A look at the essay examinations between 2010 and 2020





revealed that the cause and effect structure is the most common form of exposition that candidates are expected to write their essays on. It is therefore essential to provide students with the tools to develop an understanding of this type of essay. An understanding of this type of essay will open up other types – narrative, argumentative and descriptive – to them.

In spite of the important roles of writing, many students face many difficulties in writingOgunyemi (2014). WAEC Chief Examiner's Report (2020), observes that students are generally poor in writing and the report reveals that candidates' weaknesses include among others: unfamiliarity with written words, failure to show an understanding of the requirements of the questions attempted, of grammatical errors, poor spellings, expressions and punctuations and wrong amalgamation. Students also experienced problems in generating, organizing and developing ideas into paragraphs and maintaining paragraph unity. In addition, the conventions of the English Language texts differ from the conventions in the students' first language. In other words, other factors that are put forward for students' poor performance include unwillingness to use target language, writing anxiety, lack of knowledge of vocabulary, syntax, grammar and content, heavy reliance on the first language as well as students' instructional methods, since students need to express ideas in written form, they have to master writing, a complex activity (Ahmad, 2008). Ahmad (2008) opines that success in teaching in the classroom lies in the hands of the teachers because they are responsible for stimulating students' interest and in directing the mood and flow of the class. The major cause of students' poor performance therefore in writing is poor methodology as teachers of writing often adopt ineffective methods and strategies of teaching writing in the classroom.

The 5E model of instruction is proposed for the teaching of writing. The 5E model of instruction is based on the constructivist theory. It is a model that helps students construct knowledge from experience (Broomfield, 2020). The model was developed by Roger Bybee in 1989 for Biological Sciences Curriculum Study (BSCS). Though it was originally developed for Biological Sciences, but because of its constructivist nature, it can be adopted to teach other subjects (Sari, 2011). The 5E model is an aid or organizer for the teacher to structure and sequence potential learning experiences in a systematic way consistent with the constructivist view of teaching and learning. In the process of writing, students are expected to use their previous knowledge to discover information before writing on a task. The 5E model encourages the students to construct their own concept as they are involved in every phase of the learning process.

There are five phases in the model and each phase begins with an "e". That is why it is referred to as 5E. The phases are;

i. Engage: In this stage, the teacher assesses the students' prior knowledge and helps them become engaged in a new concept. To do this, the teacher creates interest. The





implementation of this stage is successful if students are puzzled and are motivated to inquire.

- ii. Explore: In this phase, the students collaborate to complete activities. They generate ideas and explore questions.
- iii. Explain: in this phase, the teacher guides the students towards a more in-depth understanding by encouraging the students to explain what they have learnt and share their ideas. Elaborate: Here, the teacher encourages the learner to apply the new knowledge and helps the students practice newly gained knowledge. The teacher here provides the students with practice and reinforcement.
- iv. Evaluate: the teacher observes students' performance and progress. S/he assess their understanding of concepts learnt.

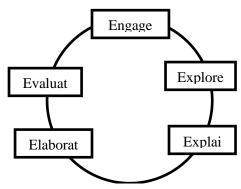


FIGURE 1: BSCE 5E MODEL LEARNING FRAMEWORK

Self-efficacy is a psychological variable that could have positive effect on writing. It is a personal belief in one's ability to accomplish learning activities (Moos & Azevedo, 2018). Bandura (1997) opines that self-efficacy is students' judgment of their capabilities to learn or master new knowledge and skills, organize and execute them to attain designated academic performance levels. The concept of self-efficacy alludes to self-trust, self-reliance and self-confidence in oneself. It has to do with the individual's belief on how effectively s/he can attain anticipated academic outcome(s) or goal(s) (Bandura, 1970). Academic self-efficacy influences thoughts, patterns and emotional arousal that lead to projected academic action and it has effect on student' level of commitments to academic goals. Students cannot write effectively if they have low self-efficacy. According to Heidari, et al, (2012), students with high efficacy belief have greater chances of achieving their academic goals than their counterparts with lower academic self-efficacy belief.

Many learners shy away from writing because they think writing is laborious as its demands are daunting and exacting – brainstorming for idea, following and knowing the grammar rules and tenses; putting ideas down on paper is tasky as well. The question is if the students are taught expository writing using the proper strategy; will there be a difference in their writing ability?

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This study sees to investigate the effect of 5E model of instruction on students' self-efficacy belief and performance in expository writing.

# **Literature Review**

The 5E model of instruction allows educators create a unique learning experience for learners (Lesley University, 2021). It facilitates learning in a meaningful and powerful way and students are active in the learning process (Bybee, 2015). The English Hub (2020) asserts that as an inquiry based model, it engages students; motivates them to learn and guides them towards skill development. It is a teaching strategy that promotes collaboration and allows students to understand a concept over time through a series of established steps or phases (Lesley University, 2021). In Broomfield's (2019) view, in the 5E model of instruction, the engagement phase draws the learners' curiosity and attention, and opens the students' minds for the learning process to begin. The exploration phase where gives the learner the opportunity to practice or work with their new knowledge. The most effective explorations allow for mistakes, trials and errors. At the explanation phase the learners hear from the teacher. The teacher uses his expertise to answer questions the students may have about the task. They also give the students questions to answer based on what they have learnt. Checking for misunderstanding helps the teacher to observe what objectives needed to be clarified or taught. The fourth phase is the elaboration phase. Here, the learners participate in an extension or a different activities that either re-teaches an objective or teaches more details about a concept. The learners apply what they have learnt in phases 1 - 3 here. At the evaluation phase, learners are assessed on what they have learnt. What should be done to enable the learners get a clearer picture of what is being taught?

Writing is essential for many significant aspects of man's life. The inability of most students to write meaningfully is worrisome. It has become necessary to explore alternate teaching strategy as against the conventional method. (Seecer&Turcel – Toy, 2020).

Literatures abound on the effectiveness of the 5E instructional teaching model. Yigit (2011) carried out a study among the students of Trakya University to find out the effect of the 5E instructional model on students' writing. Findings revealed that 5E model-based instruction had a positive effect in promoting writing skills of students. Secer&Tucel-Toy (2020) also investigated the effect of 5E learning model-based essay writing course design on 12<sup>th</sup> grade high school students' essay writing course. The study's finding was that the implementation of 5E learning model-based essay writing effect on the achievement level of the students' essay writing course. In Jeter, et al, (2019) study, there was a significant difference in the mean gain of students taught writing in the study carried out to determine the effect of 5E model of instruction on students' writing in two sub-urban high schools in America. Hassan (2020) study on the effect of models of teaching on students' writing showed using models to teach writing was effective in developing writing skills.





Self-efficacy beliefs have been associated with student's academic achievement (Prat-Sala & Redford, 2012). Self-efficacy belief affects people's cognitions, motivations, affective processes and ultimately their behavior (Bandura, 1997) which can in turn influence future efficacy beliefs known as reciprocal determinism (Williams and Williams, 2010). Given the centrality of self-efficacy to a number of outcomes, different domains in education have focused on it. Self-efficacy according to Bandura (1997) is part of a broader social cognitive framework where individuals regulate their behavior in learning through the process of taking into consideration the external environment and internal personal factor such as cognition. Kendra (2018) defines self-efficacy has a major influence on how one approaches challenges and goals. It is essentially the belief in one's ability to control one's behavior, emotions and motivations. The belief that one can solve a problem, reach a goal, complete a task and achieve what you set out to do.

Evidence from studies have shown that interactive strategies of teaching writing could enhance learners' self-efficacy beliefs in writing. Hashemnejad, et al, (2014) carried out a study to examine self-efficacy and writing performance of students and results revealed that there was significant positive relationship between students' self-efficacy and writing performance. Sun and Wang (2020) also report that self-efficacy contributes significantly to the prediction of students' writing proficiency. Prat-Sala and Redfort (2012) assess the relationship between self-efficacy in writing and students' performance on written coursework. Findings support the importance of self-efficacy in relation to students' performance and that self-efficacy is related to actual writing performance. Yisa, et al, (2020) study reveal that those taught composition writing using error-treatment strategy had high self-efficacy belief and Bayraktar (2013) study claims that writing conference has a positive impact on students' perceived self-efficacy. The study revealed that students with self-efficacy were able to write better and produce good piece of writing than those with low efficacy belief.

However, Magogwe, et al, (2015) study reveal that there is no relationship between writing proficiency and self-efficacy belief of students taking advanced writing skills courses; Eagleston (2019) research work on writing and self-efficacy belief also reveals that there is no statistically significant effect of writing on students' self-efficacy among the University of Syracus students.

Reviews above show the positive effects an innovative writing instruction can have on learners when used to teach in the classroom. The reviews also reveal the relationship between self-efficacy and essay writing. It is against this framework that this study seeks to examine how 5E model of instruction can foster students' self-efficacy and performance among senior secondary school students in Okene, Kogi State.

### **Research Questions**





- 1. What is the difference in the mean score of students taught expository essay using 5E model of instruction and those taught using the conventional method?
- 2. What is the mean self-efficacy belief rating of students exposed to 5E model of instruction in the teaching of expository writing?

### **Research Hypotheses**

- 1. There is no significant difference in the post test score of students taught using the 5E model of instruction and those taught using the conventional methods.
- 2. There is no significant difference in pre or post mean self-efficacy rating of students exposed to expository essay using the 5E model of instruction.

## Methodology

The design adopted for this study was the pretest, post-test quasi-experimental design. The population for this study consists of all SS II students of the public secondary schools in Okene metropolis of Kogi State. The sample size comprised 106 students in two intact classes of two schools randomly selected through balloting from the six public schools in the town. One of the intact classes was used as the experimental group that received treatment while the other was the control group (talk and assignment). The experimental class had 57 students while the control class had 49 students. Two instruments were used for this study. The Self-Efficacy Questionnaire (SEQ) adopted from Bandura (1997) self-efficacy questionnaire. It is a 4-point Likert Scale Questionnaire that elicited students' responses on their self-efficacy beliefs in writing under Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD), and rated 4,3,2,1 and reserved for negative questions (1,2,3,4). Six lesson plans developed by the researcher on preplanning, drafting and publication activities were used to engage the students in the classroom. Four questions on expository essay - Essay Achievement Test (EAT) were administered to the students. To determine the reliability of the instruments, they were trial tested on twenty students outside the ones used for the study. For SEQ reliability, Cronbach Alpha co-efficient was used and it yielded a coefficient reliability of 0.8, while EAT yielded 0.79 using Kuder Richardson 21. The lessons for both the experimental and control groups lasted for 2 periods of 1hour, 20 minutes once a week, for 5 weeks following the 5Es - engage, explore, explain, elaborate and evaluation. Mean and Standard Deviation were used to answer the research questions while t-test was used to test the hypotheses 0.05 alpha level. The decision rule was that the null hypothesis would be rejected if the p value is less than or equal to ( $\leq$ ) 0.05 and will not be rejected if greater than (>) 0.05. To ensure that both the control and experimental groups were of equal ability before the study was carried out, an independent sample t-test (Levene's test) was used to determine the homogeneity of the groups using the pre-test scores.

### Results





The results of the data collected were analyzed and presented below according to the research questions and research hypotheses. This study answered 2 research questions and tested 2 hypotheses. The data used to answer research questions 1 and hypothesis 1 were obtained from the scores of the EAT given to the students while the questionnaire on self-efficacy (SEQ) was used to answer research questions 2 and hypothesis 2.

# Table 1: Mean and Standard Deviation of Pretest scores of Experimental and Control Groups

Groups	Ν	Mean	SD	Std error mean
Pre-test control	49	17.33	3.555	.508
Experimental	57	17.37	3.913	.518

Levene's Test for Equality of Variance

# Table 2: T-test for Pretest scores of Experimental and Control Groups

	f	Sig.	T	Df	Sig 2- x diff		95% Confidence		
					failed		Lower	Upper	
Equal Variances Assumed	160	.690	057	104	.954	042	-1.491	-1.408	
Equal variances not assumed			058	103.663	.954	042	-1.481	1.397	

Tables 1 and 2 refer. The two groups had very close mean and standard deviation at pretest. Further, the Levene's test for equality shows t = -.057, df = 104 and p = 954 indicating that both groups did not differ significantly. It could therefore be assumed that the samples used for both the control and experimental groups were equal in their writing proficiency levels as at the commencement of this study.

# Table 3: Post mean scores of Experimental and Control Groups

Group	N	Mean ( <del>x</del> )	SD	Mean gain
Control	49	20.06	3.406	3.33
Experimental	57	23.39	4.876	

Table 1 revealed, the control group had a mean of 20.06 SD = 3.406 and the experiment group ad 23.39. The mean score difference between the two groups was 3.33, SD = 4.876. It implied that the experimental group had an increase over the group in the post test scores. The extent of the difference is further examined by testing  $H_01$ .

Table 4: T-test for post-test of Control and Experimental Groups

Groups	f	Sig	t	df	Sig	x diff	Lower	Upper
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					2-failea	l		
Equal Variances assumed	10.182	0.002	-4.005	104	.000	-3.325	-4.971	-1.679
Equal variances not			4.112	100.017	.000	-3.325	-1.429	1.720
assumed								

Table 2 indicates that t = -4.005, df = 104, p = .000 < 005. Meaning that 5E model of instruction significantly affects the students' writing. The null hypothesis is therefore rejected as there is a significant difference in the mean score of students given treatment (Control Group).

#### Table 5: Self-efficacy of Experimental Group Pre-test and Post-test mean scores

	Ν	$Mean(\bar{x})$	SD	Mean Gain
Pre-test scores	57	46.93	5.637	11.19
Post-test scores	57	58.12	6.959	

Table 5 presented the mean self-efficacy ratings and standard deviation of students taught expository writing using the 5E instructional model. The mean for the pre-test was 46.93, SD = 5.637 and for the post-test was 58.12, SD = 6.959. There was a mean gain of 11.19. What it meant was that 5E instructional model boosted the students' confidence and performance. Hypothesis 2 examined the difference further.

#### Table 6: Paired Sample Correlation of Pre and Post-efficacy scores

					Ν	Correlation	Sig	
Pre	Self-Efficacy	k	Post	Self-	57	.176	.189	
effice	асу							

# Table 7: Paired Sample t-test of Self Efficacy of Experimental Group Pre-test and Post-test scores

	Mean	SD	Std Error Mean	95% Cont Lower	fidence Upper	t	df	Sig. 2 -failed
Pre Self Efficacy & Post Self efficacy	-11.193	8.147	1.079	-13.355	-9.031	-10.373	56	.000

The mean score gain of 11.193 indicate that the mean scores of self-efficacy (pre and post) were different. The correlation (r) in table 6 = 0.176, meant the pretest was related to post-test. The paired correlation revealed in Table 7 t = -10.373, df = 56 and p = 0.000 < 0.05 implied that there was a significant difference in the students' self-efficacy belief towards expository essay writing using the 5E model on instruction. The hypothesis was therefore rejected.

### **Discussion of findings**





Data collected and analyzed in this study revealed that students taught expository essay using the 5E model of instruction performed better than their counterparts in the control group as the experimental group had higher mean gain. This finding agrees with the findings of Yigit (2011), Jeter, Barber, Williams, Atkinson, Dean and Ham (2019), Secer and Yucet-Toy (2020) and Hassan (2020). This means that writing activities through the 5E instructions model had positive effect on the student's performance. This may be because the students were engaged in a reflective and collaborative manner. They were taken through the writing process using activities that helped them monitor their learning as they receive immediate feedback and reinforcement. The model motivates students to write as it makes students participate actively in the various phases of the model in the writing class.

The 5E instructional model enables students to take responsibility of their learning which created a more independent, self-confident, engaged and motivated students. This is self-efficacy belief in the students' learning. 5e model of instruction builds self-efficacy in the students in the writing classroom. This agrees with the findings of Prat-Sala and Redfort (2012); Hashemnejab, Zoghi and Amini (2014) and Sun and Wang (2020) but did not agree with the finding of Magogwe, Ramoroka and Mogana-Monyepi (2015) whose findings revealed that there was no significant relationship between self-efficacy and 5E model of instruction.

# Conclusion

This study was undertaken to find out how 5e model of instruction can foster self-efficacy and performance among students to address the issue of students' inability to write well as a result of the teachers' poor methodology of teaching. The study has revealed that students taught with the model perform better with positive self-efficacy. The proof of these are contained in the post-test scores of the experiment group that was taught essay writing using the model and from the response and result got from the self-efficacy rating. The implication of the above is that the model had positive effect on students' essay writing and using it will help increase students' writing skills and their confidence in writing. To this end, the following recommendations are made:

- English teachers should adopt this teaching model in essay writing classes
- Many English teachers may not be aware of this teaching model, therefore there should be conferences, workshop organized periodically to bring innovative teaching methods as this to the awareness of the teachers.
- Class texts should also have this model. This will ensure that the writing teachers use them.





# References

- Ahmad, F. (2018). Presage, context, process and product: Influencing variables in an ESL context. *Gema Online Journal of Language Studies*, 8(1), 1-21. https://www.ukm.mu/ppls/Gema018(1) 2018/page 1-2.
- Bandura, A. (1997), Self-efficacy: The exercise of control. W. H., Freeman
- Bayraktar, A. (2013). Nature of interaction during teacher-students writing conferences. Revisiting the potential effects of self-efficacy believes. *EgitimArstimalaria Eurasian Journal of educational Research*, 50, 653 – 86.
- Broomfield, D. (2020). *How to create a 5E lesson plan.* Retrieved 5/11/2020 from wehavekids.com
- Bybee, R. (2015). The BSCS 5E instructional model. Creating teachable moments. NSTA Press.
- Cummings, K. & Petscher, Y. (2015). *The fluency construct: Curriculum based measurement, concept and applications.* Springer Science and Business Media.
- Eagleston, B. (2019). Relationship between self-efficacy and writing fluency in a performance feedback intervention. *Theses All, 131.https://surface.syr.edu/thesis/131*
- English Hub, (2020). Understanding the 5E model of lesson planning. www.englishhub.com
- Ezeokoli, F. O., &Igubor, P. (2016). Improving secondary school achievement in essay writing using two models of essay structure-based instructional strategies. *International Journal for Innovation and Research*, 8(6), 34 62.
- Hashemnejab, F. Zoghi, M.E., & Amini, D. (2014). The relationship between self-efficacy and writing performance across gender, *Theory and Practice in Language Skills*, 4(5), 1045 1052.
- Hassan, S.G.M (2020). A proposed teaching model for developing writing skills and achievement of students with different learning styles. *International Journal of Academic Research & Reflect*, 8(1), 17 33.
- Heidari, F. Izadi M. Ahmadian, M. V. (2012): the relationship between Iranian EFL learners selfefficacy beliefs and use of vocabulary. Learning strategy, 5(2), 51 – 67.
- Jeter, G. Baber, J. Williams, L. Atkinson, L. Dean, S. & Ham G. (2019). Insights and implications of authentic 5E instruction in high school English Language Arts. https://doi.org/10.3389/feduc.2019.0091

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- Lesley University (2021). Empowering students: the 5E model explained. https://www.lesley.edu/article
- Magogwe, J.M, Ramoroka, M. T. & Mogana-Monyepi, R. (2015). *Developing students writers'* self-efficacy beliefs. Journal of Academic Writing, 5(2), 20 28.
- Muodumogu, C. A, & Odey J. E. (2006). Effect of projected media on students' achievement in composition writing. Benue State Journal of Education, 7, 288 299.
- Moos, D.C, & Azevedo, R. (2018). Monitoring planning and self-efficacy during learning with hypermedia: the impact of conceptual scaffolds. *Computers in Human Behaviour*, 24(4) 1686 1706
- Ogunyemi, R.O. (2014). Two modes of reactive focus on form strategies as determinants of senior secondary school students' learning outcomes in English language essay writing. An unpublished Ph.D dissertation of the University of Ibadan, Oyo State.
- Prat-Sala, M. & Redfort, P. (2012). Writing essays: Does self-efficacy matter? The relationship between self-efficacy in reading and writing and undergraduate students' performance essay writing. *Educational Psychology*. 32(1) 9 20.
- Sari, R. (2011). Teaching primary science: trial teacher feedback. https://www.tinyurl.com
- Secer, S. Y. E. &Tucel-Toy, B (2020). Impact of writing course design based on 5E learning model on writing skill instruction and development. *International Online Journal of Language and Teaching (IOJET)*, 7(3), 760 – 783.
- Sun, T. & Wang, C. (2020). College students' writing self-efficacy and writing self-regulated learning strategies. *System 90*.
- The West African Examinations Council (WAEC) (May/June 2020). Senior School Certificate Examination Chief Examiner's Report – Lagos.
- Williams, T. & Williams, K., (2010). Self-efficacy and performance in mathematics: Reciprocal determinism in 33 nation. *Journal of Educational Psychology* 102, 256 453.
- Yigit, C. (2011). The effect of the 5e models in writing on achievement and motivation. Unpublished Masters' thesis. TrakiyaUniversty, Turkey.
- Yisa, A. T, Modumogu, C.A & Udu, T.T (2020), Enhancing self-efficacy belief in writing in Benue State, Nigeria: Can error-treatment strategy help? *Nigerian Journal of Literacy and Language Education*, 1(3), 61 67.