Article

Moderating Effect of Gender in the Link between Students' Academic Achievements in Junior and Senior Secondary School External Mathematics Examinations

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Abstract: The study explored the moderation role of gender in the association between secondary school students' achievement in Mathematics BECE (Basic Education Certificate Examination) and WASSCE (West African Senior School Certificate Examination). The study employed a longitudinal correlational research design. Two research questions and two hypotheses were formulated for the study. The population of the study was 2155 Mathematics students who sat for BECE and WASSCE in 2021 and 2023 respectively in Afikpo Local Government Area of Ebonyi State. The sample size for the study was 300 secondary school students. Multi-stage sampling procedure was employed in selecting the students. School records of students' achievement in BECE and WASSCE provided the data for the study. Collected data were analyzed using Statistical Package for the Social Sciences (SPSS) version 25. Pearson Product Moment Correlation Coefficient was used to answer the research questions while Regression analysis of variance (ANOVA) and t-test statistic were used test the hypotheses. The findings revealed moderate positive relationship between students' achievement in Mathematics BECE and WASSCE. However, gender did not significantly moderate the relationship between students' achievement in Mathematics BECE and WASSCE. It was recommended among others that junior secondary Mathematics teachers should adequately cover junior secondary school Mathematics curriculum to enable junor secondary school students acquire pre-requisite Mathematics knowledge.

Keywords: Mathematics, Secondary education, Internal examination, External examination, Assessment, Gender

1. Introduction

The nature of Mathematics curriculum demands that students have solid foundation in Mathematics at junior secondary schools so as to make learning of Mathematics less challenging for the students at senior secondary school level. Hence, it is expected that teaching and learning Mathematics at any level of education is structure to harness the potentials of Mathematics for national development. Mathematics is one of the most important subject taught at secondary school schools (Ogbu & Ugwu, 2023). Despite the roles of Mathematics in country wide improvement, students' achievement in internal and external examinations in Mathematics has turn out to be persistently discouraging. This spell doom for Nigeria given the reality that many students won't be able to further their education because of their inability to fulfill the requirement of at least a credit pass in Mathematics for admission into tertiary education in the country. Despite the fact that efforts have been made to bringing lasting solution to the poor achievement in Mathematics, poor performance in the subject has however persisted, thereby calling for extra researches. It is worth to notice that while there are claims that poor foundation in Mathematics contribute to secondary school students' terrible achievement in Mathematics at higher classes, there seems to be little or no empirical evidence to back up these claims. Therefore, the problem of the study was to evaluate the connection between secondary school students' success in Mathematics in Basic Education Certificate Examination (BECE) and West African Senior Secondary Certificate Examination (WASSCE), and also explore the role of gender in this connection. It is hoped that this effort will contribute to improve the quality of education in the country.

Formal education remains one of the channels of human learning by which understanding is imparted and capabilities evolved. It is pointed out that Education is of paramount importance, because it aids in improving the satisfaction of individuals' life styles and the society in general (Muftahu & Hazri, 2015). Hence, it is expected that formal education consistently incorporates activity-based learning, since studies indicated that students gain more knowledge when taking part in classroom that employs activity based strategies (https://news.harvard.edu/gazette/story/2019/09/). Nigerian education system, as highlighted in the National Policy on Education, include pre-nursery, nursery, primary, secondary, and tertiary education (Federal Republic of Nigeria [FRN], 2013). Secondary education is a vital factor in the Nigerian education system. Senior secondary education does not only occupy a strategic

position in the educational system in Nigeria, but it also serves as the link between the Junior Secondary and the tertiary education (Ogbu & Ugwu, 2023). Secondary school is the basis upon which better expertise in tertiary education is built. It is a medium that can be used to achieve economic, social, political, technological, scientific, and cultural development in a country. One of the subjects that is taught at all the tiers of the Nigerian education system is Mathematics.

Mathematics is a discipline that allows secondary school students to gather wider areas of skills, which include skills in computation and logical thinking. Hence, Mathematics is seen as the study of quantity, shape, space, relation, change, styles, and entity (Abdul-Rauf & Akanmu, 2019). Mathematics entails the collection of principles and techniques of numbers, shapes, and symbols that are designed to enable learners make logical and rational decision on issues. Mathematics is often described as the queen and servant of all the subjects (Ehiwario, Aghamie, & Azagbaekwue, 2019). Mathematical knowledge is obtained through enhancing students' participation in Mathematics learning episode. The formal system through which students acquire Mathematics knowledge is termed Mathematics education (Asika, 2019). Mathematics knowledge has become very necessary in the current times considering the roles of the discipline in improvement of individual and national .economy.

The roles of Mathematics could be the reason the subject has stood the test of time. It is observed that Mathematics is one of the oldest and most important discipline in human history (Tudunkaya & Jamilu, 2019). The significance of Mathematics is apparent as the subject is applied in understanding of different school subjects such as Agriculture, Space Research, Economics, Meteorology, Biology, Zoology, and host of others. Because of the importance of Mathematics, it is made obligatory for all secondary school students from nursery schools to tertiary institutions in Nigeria (Tudunkkaya & Jamilu, 2019). More so, admission of students into many science related courses in universities in Nigeria, requires at least a credit pass in Mathematics in school certificates examinations. The significance of Mathematics is also seen in the daily lives of individuals, mainly within buying and selling. Hence, Mathematics is considered as the most relevant school subjects (Suleiman & Hammed, 2019) probably because of its application in development of modern technologies such cellular devices and computers.

Mathematics is veritable tool for economic empowerment and any country wishing to expand both in terms of financial generation need to take teaching and gaining knowledge of Mathematics as serious business (Ehiwario, Aghamie, and Nwaka, 2020). Development in Mathematics is said to amount to a corresponding development in economy, science and technology (Zalmon, & Charles-Ogan, 2020). The usefulness of Mathematics cannot be overstated as Mathematics is applied in all human endeavours (Dogo, 2020). Moreover, Mathematics evolved out of necessity to meet the expectation of lives, and therefore holds theand servers and one of the tools for civilization (Azuka, 2012). There appears to be very little argument on the importance of knowledge of Mathematics. Mathematics is a crucial discipline and its understanding complements individual's reasoning and problem-solving abilities (Ogbu et al., 2023). Interestingly, mathematical knowledge could be deployed to solve economic and security challenges facing Nigeria. However, the extent to which Nigeria could apply mathematical knowledge in problem-solving could be a function of the level of Mathematics expertise among the citizenry. Mathematical know-how is often decided in terms of secondary school students' academic achievement in Mathematics.

Students' achievement in Mathematics (scores obtained in Mathematics examinations) is often used to measure students' level of progress in learning Mathematics. Academic achievement is the cognitive gains of pupil that may be measured in terms of success in examination administered by means of a teacher or examination bodies (Ogbu & Emeji, 2023; Ogbu et al., 2024). According to Nwokocha and Amadike (2005), instructional overall performance of secondary school students is the yardstick for testing the level of success of instruction and the investment in teaching and learning. Hence, it is far expedient to preserve a high overall performance in internal and external examinations particularly in Mathematics. The West African Examination Council (WAEC) Chief Examiners' Reports (CER) on secondary school students' achievement in Mathematics imply that more than 50% of the students who sat for the May/June WASSCE from 2010 to 2018 could not acquire the minimum credit score in the subject (CER, 2010-2018), implying that 50% of the students were not eligible for admission into Nigerian universities within the period. Students have diverse degree of weaknesses in all the areas of Mathematics (Ogbu & Anyaegbu, 2021, WAEC, 2017-2021). The consequent of persistent low achievement of secondary school students in Mathematics are that many students might not further their education. More importantly, many may lack lifelong talents, and won't contribute meaningfully to development of the society. Despite the importance of Mathematics, students' success in the subject is discouraging and hence, spell doom for technological advancement of Nigeria, (Ehiwario, 2019). Many factors contribute to students' challenging in learning Mathematics (Agbozo, et al., 2024; Domínguez Vázquez & Palencia, 2024) which include the nature of the subject.

Factors consisting of poor motivation in learning Mathematics (Akayuure & Akayuure, 2024) and students' inadequate knowledge of fundamental principles and concepts that ought to enable them to actively take part in Mathematics lesson. One of the factors that often attributed to poor achievement of secondary students at junior and senior secondary schools is the junior secondary school Mathematics teachers' limited content and pedagogical knowledge (Asomah, 2023). The incompetency could cause loss of interest and eventually, weak foundation in Mathematics. Unarguably, Mathematics is a subject that needs mastery of

basic contents before significant learning of advanced content areas could be achieved. Hence, it can be argued that students' poor achievement in senior secondary Mathematics may be due to weak foundation in junior secondary school Mathematics. However, given that the ideal situation demands that junior secondary school students ought to have made the minimal requirement of passing Mathematics for their promotion to senior secondary school, it becomes worrisome as many number of students struggle to get a credit pass in Mathematics in WASSCE. One technique to determining whether the achievement of students in senior secondary school Mathematics could be attributed to secondary school students' weak foundation in Mathematics, particularly at junior classes, includes correlating the scores students received when they were in junior and senior secondary schools. This procedure could give more insight on the relationship between achievements in junior and senior secondary school Mathematics examinations and further, to understand the moderation role of gender in the link between students' achievement in junior and senior secondary school Mathematics examination.

Gender entails social labelling that distinguish male and female members of the society. Gender is different from sex in that while sex describes the biological difference between males and females, gender takes into consideration the roles and expectation the society attaches to males and females. Gender is one the non-controllable factors with reported controversial influence on academic outcome. There is STEM (Science Technology, Engineering, and Mathematics) gender gap in favour of male students (Spearman & Watt, 2013). The gender gap in STEM, although attributed to disparity in Mathematics achievement, attitude, and socialization (Spearman & Watt, 2013), the difference in Mathematics ability of male and female students across countries in International Mathematics and Science Study (TIMSS) was small (Mullis, Martin, Foy, & Hooper, 2016). Gender difference in liking Mathematics, confidence in Mathematics, and valuing Mathematics was negligible (Mejía-Rodríguez, Luyten, & Meelissen, 2020). Gender gap in Mathematics has persisted and seems to be country-dependent. It is pointed out that in many countries, gender gap in Mathematics and science is very obvious in fouvour of male students while is some countries, female students outperformed their male counterparts (Meinck & Brese, 2019). Gender has been recognized as some of the factors that may affect students' academic achievement in Mathematics in Nigeria (Oribhabor, 2020). Within Nigeria, results of studies on gender variations in Mathematics are controversial. First, there are research that indicated considerable gender difference in Mathematics achievement in favour of males (Oribhabor, 2020). On the other hand, there are research that show no significant effect of gender on achievement in Mathematics (Akissani, Muntari & Ahmed, 2019; Ghasemi, Burley, & Safadel, 2019). While many studies appear to have targeted gender differences in secondary school students' academic achievement in Mathematics, there is scarcity of studies on the moderating impact of gender on the relationship junior and senior secondary school students' achievement in Mathematics. As a matter of fact, little is known on the moderating effect of gender in the relationship between students' performance in Mathematics Basic Education Certificate Examination (BECE) and WASSCE.

Moderation model is a framework though which researchers could determine whether the relationship between independent variable and dependent variable depend on the level of another independent variable (the moderating variable). In this study, moderating effect of gender in the link between students' achievement in BECE) and WASSCE Mathematics examination describes whether the effect of BECE on WASSCE Mathematics would be the same in both male and female group. In other words, would the effect of performance in BECE on the performance in WASSCE depend on the level of students' gender? While success in basic education is expected to bring about success in subsequent education, the there is a need to understand the role of gender in this in the predictive relationship between students' performance in some of the important external examinations in the country.

The Basic Education Certificate Examination (BECE) functions as the yardstick for admission into the Senior Secondary School, a student who is promoted to senior secondary is believed to have acquired the pre-requisite abilities and competencies to cope with the learning demand of senior secondary schools. The State Ministry of Education is responsible for conducting BECE for the numerous students in Nigeria. A minimal of credits/passes in five topics such as English and Mathematics qualifies a student who sat for BECE for promotion to senior secondary classes. Studies have shown link between achievement in BECE and NECO SSCE (Okpube, Ugama, Nnachi, & Anugwo, 2021), there was no information on moderating impact of gender in the link between achievement of junior and senior secondary school students in Mathematics. More importantly, the poor achievement of secondary school students in WASSCE call for brainstorming on the relationship between students' scores in their BECE and WASSCE and role gender could play in the predictive mechanism.

1.1. Purpose of the Study

The objective for this study is to examine the connection between students' achievement in Mathematics BECE and WASCCE. Specifically, this examine intends to determine:

1. The relationship among secondary school students' success in Mathematics in BECE and WASSCE
2. The connection between secondary school students' overall performance in Mathematics BECE and WASSCE as moderated through Gender.

1.2. Research Question

1. What is the relationship between students' achievement in BECE and WASSCE Mathematics in Afikpo North Local Government Area?
2. What is the relationship between students' achievement in BECE and WASSCE Mathematics as moderated by gender?

1.3. Hypotheses

The examine followed null studies hypothesis as a research guide

H01: There is no significant relationship between secondary school students' performance is BECE and SSCE WAEC Mathematics.

H02: Gender does not significantly moderate the relationship between students' achievement in BECE and WASSCE Mathematics.

2. Materials and Methods

2.1. Research Design

Longitudinal correlational research design was adopted for the study. Correlational research design aims at examining the relationship between the same variable in the same population or between the same variable in two populations (Leedy & Ormrod, 2010). This design was considered appropriate for this study as it focused at determining not only the relationship that exists between students' BECE and SSCE Mathematics scores but also moderating effect of gender in the relationship.

2.2. Area of the Study

Afikpo North Local Government Area in Ebonyi State was the area of the study. Ebonyi State is situated in South Eastern Nigeria and is one of the five states in Southeast Nigeria. Known as the 'salt of the nation,' Ebonyi State boasts significant salt deposits. Established in 1996, the state comprises 13 Local Government Areas, with Afikpo being the second largest. Afikpo, a Europeanized form of the original name 'Ehugbo,' is located in the southern part of Ebonyi State and covers an area of approximately 164 square kilometersIt is located on 6 degrees north latitude and 8 degrees east longitude. Afikpo is a hilly area despite occupying a region low in altitude which rises 350 feet above sea level (http://wikileaks/2010.org). Afikpo civilization according to several archaeological findings shows it existed as far back as the Neolithic Age (http://afikpoonline.com/about-afikpo). The main occupations of the people in Afikpo are farming, civil and public service, and handcrafting. A large number of Afikpo residents are students at various levels of education. The common languages spoken in Afikpo are the local dialect, central Igao language, and English. Before the Irish left Afikpo, they established the Mater Misericord Specialist Hospital, which is known for having one of the best nursing schools in Nigeria. Additionally, Afikpo is home to prestigious educational institutions such as Akanu Ibiam Federal Polytechnic Unwana, Government Secondary schoole, and McGregor Secondary School. The establishment of various institutions and organizations by state, federal, and private entities, such as banks, the National Youth Service orientation camp, an Islamic school, and the federal prison, has led to increased food production from subsistence farming to commercial farming. Notable farm produce in Afikpo includes cassava, yam, rice, groundnut, maize, and potatoes. Afikpo comprises several towns including Itim, Nkpoghoro, Ugwuegu, Ohaisu, and Ozizza. According to the 2006 national population census, Afikpo North Local Government area has a total population of 154,649 persons, consisting of 80,632 males and 76,017 females (https://nationalpopulation.gov.ng/). There are nineteen (19) public secondary schools in Afikpo-North. Public secondary schools were chosen for this study because they make use of the same BECE examinations and they have similar characteristics.

2.3. Population of the Study

The population for this study was two thousand one hundred and fifty five (2155) students who some of them sat for BECE in 2021 and also sat for SSCE 2023 in Afikpo-North. These students were made up of 1160 boys and 995 girls. The sample size for the study was 300 hundred students consisting of 140 boys and 160 girls. The sample was determined using Cohen and Mannion (2007) table of sample size which recommend that a population of 2000 would require a sample of 300. The sample was selected using multi-stage sampling technique. The instruments for data collection were proforma titled "Mathematics Grade Proforma"

(MGP) and students' results in BECE and SSCE Mathematics. The MGP contains students' column, gender column, BECE Mathematics grade column and SSCE Mathematics column. The MGP was used for importing data from result sheet.

2.4. Method of Data Analysis

The researcher first of all visited the selected 10 schools and obtained the consent and permission of the school principal for the study. Having obtained consent and permission of the principal, the students' results were given to the researcher. The researcher adopted content analysis in data collection. Content analysis is a strict and systematic set of procedures for the rigorous analysis, examination and verification of the content of written data. In order to analyze the collected data, the students' grades in SSCE and BECE were coded as follows: F9=10, E8 = 20, D7 = 30, C6 = 40, C5 = 50, C4 = 60, B3 = 70, B2 = 80, A1 = 90 and P =40, D =50, C=60. Correlation coefficient, regression t-test and coefficient of determination were used for data analysis.

3. Results

This section presents the results from data analysis. The results are presented in tables according to research questions and hypotheses that guided the study.

Research Question One: What is the relationship between students' achievement in BECE and WASSCE Mathematics in Afikpo North Local Government Area?

Table 1. Pearson Product Moment Correlation Coefficient of the Relationship between Students' Achievement in BECE and WASCCE Mathematics.

		BECE	WASCCE
	Pearson Correlation	1	0.59**
BECE	Sig. (2-tailed)		0.01
	N	300	300
	**. Correlation is significant at the 0.01 level (2-tailed).		

Table 1 shows moderate and positive relationship (r=0.59) between students' achievement in Mathematics BECE and WASSCE. In other words, students who had higher scores in BECE Mathematics also had higher scores in WASSCE Mathematics. Hypothesis One: There is no significant relationship between students' performance is BECE and SSCE WAEC Mathematics

Table 2. F-ratio Test for Significance Relationship between Students' Achievement in Mathematics BECE and WASSCE.

Model		Sum of Squares	df	Mean Square	F	Sig.
1.00	Regression	618.47	1.00	618.47	161.03	0.00
	Residual	1144.53	298.00	3.84		
	Total	1763.00	299.00			
	a Dependent Variable: WASCCE					
	b Predictors: (Constant), BECE					

Table 2 shows that students' achievement in Mathematics BECE was a significant predictor of students' achievement in WASSCE Mathematics (F(1,298) = 161.03, p = 0.01 <0.05). This is also evident in Table 1 that shows significant relationship (r(298) = 0.59, P = 0.01 < 0.05) between students' achievement in BECE and WASSCE Mathematics, implying that as the students' performance in BECE increased, their performance in WASSCE also increased.

Research Question Two: what is the relationship between students' achievement in BECE and WASSCE Mathematics as moderated by gender?

Table 3. Relationship between Students' Achievement in BECE and WASSCE Mathematics as Moderated by Gender.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.60a	0.35	0.35	1.96
	a. Predictors: (Constant), Gender, Interaction, BECE			

Table 3 shows the relationship between students' achievement in BECE and WASSCE Mathematics as moderated by gender. The results show a multiple correlation of 0.60, and Adjusted-R of 0.35 which implies that 35 percent variance in students' achievement in WASSCE is explained by students' achievement in BECE, gender and interaction effect of gender and students' achievement in BECE Mathematics.

Hypothesis Two: Gender does not significantly influence the relationship between students' Achievement is BECE and WASSCE Mathematics

Table 4. A Regression t-test for Moderation Effect of Gender in the Relation between students' Achievement in BECE and WASSCE Mathematics.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1.00	(Constant)	48.13	6.80		7.08	0.00
	BECE	0.39	0.15	0.40	2.68	0.01
	Gender	-5.85	4.23	-1.20	-1.38	0.17
	BECE*Gender	0.12	0.09	1.16	1.32	0.19
	a Dependent Variable: WASCCE					

Table 4 shows that gender had no significant moderating effect in the relationship between students' achievement in Mathematics BECE and WASSCE (t(298)=1.32, P=0.19>0.05). Since the probability level (0.05) stated for testing the null hypothesis is less than associated probability value (0.19), the null hypothesis which state that the relationship between students' achievement in Mathematics BECE and WASSCE is not significantly moderated by gender is therefore upheld.

4. Discussion

The study explored the moderating influence of gender in the link between students' academic achievements in junior and senior secondary school external examinations in Mathematics. This is necessary in order to understand the mechanism that relates achievement in junior secondary school with achievement in senior secondary schools. The result of this study found out a significant relationship among secondary school students' performance in BECE and SSCE WAEC Mathematics in Afikpo North Local Government Area. This findings not surprising, giving that Mathematics curriculum is vertical in nature, implying that the contents are arranged in such a way that fundamental and prerequisite knowledge are taught at junior secondary school level. Hence, the likely reason for the connection between the achievement in junior and senior secondary school Mathematics examination. Students who have solid footing in Mathematics at junior secondary school may have little or no challenge learning Mathematics at senior secondary school. It needs to be noted that because of the hierarchical nature of Mathematics contents, proper mastery of fundamental content enables the secondary school students to understand higher mathematical content easily at the senior secondary Mathematics. For instance, at junior secondary school level, students are exposed to factorization methods of solving quadratic equations, at senior secondary, the knowledge is extended to include the use completing the square. Students who do not have adequate mastery of factorization method, may not actively participate in learning the use of completing the square method. The teachers, although, are encourage to test students entry behaviour and provide remedial instruction, with the limited time and large contents to cover in Mathematics scheme, many students may not receive adequate remedial instruction. This underscore the importance of students having adequate knowledge of Mathematics expected of them at junior secondary school level. These findings is in consonance with Umar and Abubakar (2017) who reported that a achievement in Junior Certificate Examination can result in higher achievement in Senior School Certificate Examination if the students learning is monitored properly by the secondary school management and instructors. More so, the finding agrees with Adeyemi (2008) and; Ugwuda and Abonyi (2010) whose findings revealed significant relationship among secondary school students' scores in BECE and SSCE in different subjects. The roles of teachers who teach at junior secondary school should include adopting strategies that would enable most of students who struggle to learn Mathematics at junior secondary to have adequate pre-requisite knowledge. The teachers could first identify struggling students and through individualized instruction, inculcate the required skills in the students. Extra moral lesson, with emphasis on the areas the students have not mastered need to be explored by the teacher to help remediate the students' difficulties in learning Mathematics at junior classes. The teachers need to re-examine their promotional assessment tools to ensure that students who have acquired the required skills are promoted.

The findings of study further indicated that there was no significant moderating impact of in the relationship between BECE and SSCE Mathematics scores of male and female student. The absence significant impact of gender in the link between students' achievement in BECE and SSCE Mathematics could be attributed negligible difference in the effect of gender on students' liking for Mathematics, attitude towards Mathematics, and self-confidence in Mathematics (Mejía-Rodríguez, Luyten, & Meelissen, 2020; Meinck & Brese, 2019). If male and female students learn in the same classrooms, they are likely to be equal motivated, thereby vicariously bridge the gender gap in their learning curve. More so, It could also be attributed to idea that "whatever a man can that a woman can eve do it better". This ideas and feeling seem to motivate the female students to match up with their male counterparts

even in science and Mathematics. This finding aligns with Umar and Abubakar (2017) who discovered that there was no gender distinction among secondary schoole students` overall performance in JSCE and NECO-SSCE in Mathematics for male and girl students but, there has been a relationship between JSCE and NECO-SSCE result in Mathematics for all students.

5. Conclusion

Based on the findings of the study, the researcher conclude that there was a significant relationship between students' performance in BECE Mathematics and their performance in SSCE Mathematics in Afikpo-North Local Government Area, Ebonyi State. This implies that students who wish to perform well in WASCC need not to wait until he get to senior secondary school before he start preparing for good performance. The students are expected to be aware that Mathematics contents are not like Geography or Economics where students could start from senior secondary schools and learn them. The teachers who teach at junior secondary school need to ensure that scheme work are adequately covered as uncovered scheme could inhibit students' learning of advanced content areas at senior secondary school level. Secondary school students with learning challenges need to be properly diagnosed to determine whether they lacking on the fundamental contents meant for junior secondary school.

However, gender does not influence the relationship between students' performance in BECE Mathematics and their performance in SSCE Mathematics. This implies that the relationship between students' performance in BCE Mathematics and SSCE Mathematics does not depend on whether the students belong to male or female groups. Hence, while efforts are made to ensure that adequate knowledge of Mathematics is established at junior secondary school, no preference should be given to either male or female students. Teachers are expected to employ gender-fair approach capable of encouraging males as well as the females to have proper footing in learning Mathematics. In the light of the findings of this study, and their implications, the following recommendations are that teachers should ensure that students' internal examination scores should be reliable by adopting good teacher-made test, eliminating examination malpractices and ensuring that all the required aspect of curriculum is covered for both the junior and senior students. Secondly, struggling students, especially those at junior secondary level need to be given adequate attention, because their performance BECE will certainly affect their perform l in SSCE. There should be a synergy between the teachers of junior and senior students to ensure that students' that have deficiency in Mathematics at junior secondary school are given proper attention at senior level. Student that failed BECE should not be promoted until there is evidence of mastery of fundamental contents of junior secondary school Mathematics. If such students are promoted without evidence adequate knowledge, such students may likely perform below expectations in SSCE Mathematics.

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