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RELATIONSHIP BETWEEN SECONDARY SCHOOL STUDENTS' ACADEMIC SELF-CONCEPT AND THEIR ACADEMIC ACHIEVEMENTS IN EDO STATE

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A**bstract**
Academic achievements of secondary school students have been source of concern in Nigeria in recent years. As a result, this study investigated the relationship between secondary school students' academic self-concepts and their academic achievements in Edo State. The study was guided by five research questions and two hypotheses. Population of study comprised all SS2 students of the state owned (public) secondary schools. A sample size of 1201 students in SS2 was randomly drawn from 30 senior secondary schools, out of the 310 state owned (public) secondary schools. The research design was correlational survey and instrument used for data collection was academic self-concept scale (ASCS). The instrument was adopted for use with the authors' established Cronbach alpha reliability co-efficient (internal consistency) of 0.84 for (ASCS). Other instruments used in the study were end of term results or students' achievement scores of Mathematics and English Language. Administration of research instrument was done through direct delivery approach and the data were analysed using summated scores, percentages, Pearson r, t-test of simple regression analysis. Hypotheses were tested at 0.05 level of significance and findings revealed that 1042(86.8%) have good academic self-concept. While 232(19.3%) of the students had excellent academic achievement in Mathematics, 378(31.5%) of them had excellent academic achievement in English Language. It was also revealed that relationship existing between secondary school students' academic self-concept and their academic achievements was neither significant in Mathematics nor in English Language. Hence, the study concluded that there was no correlation existing secondary school students' academic self-concepts and their academic achievements in Edo State. Based on the findings recommendations were made.
Key words: Academic achievements, Academic self-concept and Relationship

Introduction

Despite the attention that the education sector has been receiving, performance of secondary school students in certificate examinations, more importantly in English Language and Mathematics has not witness any remarkable improvement. This notwithstanding the huge investment by every parent, fact remains that when SSCE or NECO results are released every year, some candidates come out with disheartening grades that are not commensurate with the huge investment of the parents and

government in the education sector. This is also in spite of the fact that every year, Nigerian universities that have departments of English/Education and Mathematics/Education churn out graduates with good and decent grades or results. One would have expected that with the increase in the number of those who have direct contact with English Language/Education and Mathematics/Education, as well as with the great attention or importance given to the education sector by both parents and government on the increase, the cry about woeful performance in English Language oral/written and the inability to perform well in Mathematics examinations by secondary school students in Nigeria and Edo state in particular would have been a forgotten issue.

As a result, academic achievement/performance of senior secondary school students in these core subjects, Mathematics and English language especially has been a source of great concern to many educators, parents, guardians, curriculum planners, counsellors and researchers. Globally, Mathematics and English Language have gained an indisputable importance and attention because both have become recurrent denominators in scientific and social research studies. In addition, both have come to occupy unique positions in scientific and sociological struggle at globalization through information and communication management. According to Olusegun (2015), less than 50% of the candidates who sat for public certificate examinations in Nigeria between; (2004-2011), obtained up to credit passes in five subjects including Mathematics and English Language, which invariably are the minimum academic qualifications/requirements for admission into tertiary institutions in Nigeria every year. More recently a careful analysis and observation of secondary school students' performance in WAEC in Edo State from 2014-2019 have shown a remarkable improvement in respect of five credits pass in five subjects, including Mathematics and English Language although it was with fluctuation. For instance, in 2014 number/percentage of students with 5 Credits and above including Maths and English language was 37,242 (57.52%), 2015 stood at 18,121(33.9%), 2016 was 45,574(73.9%), 2017 stood at 48,770(76.13%) where 2018 was 37,334(62.40%) and 2019 stood at 27,754(51.14%). **Source:** WASSCE Results. Retrieved on Tuesday, 21 January 2020 from https://www.nairaland.com. The issue is what could be responsible for the nature of the performances of the students within the years.

In the views of Parveev and Tariq (2016), academic achievement is a dynamic process which plays a very significant and vital role in the attainment of harmonious development of a child in all spheres of life. Academic achievement in general refers to the degree of proficiency attained in some specific areas concerning some scholastic and academic work. It is the outcome of education or the extent to which a student, teacher or institution has achieved his or her educational goal and it is commonly measured by examinations or continuous assessment. It is also seen as examination marks, teachers' given grades and percentiles in academic subjects whereby higher scores indicate better educational attainment.

A variable of importance which influences students' academic achievement and which of course, often neglected in the assessment of students' performance or achievement is the student's academic self-concept. This is a general term that is used to refer to one's mental picture of self, a collection of beliefs about one's own nature, unique quality and typical behaviour. It is also seen as the self-perceptions of one's beliefs such as "I am

pretty" I am hard working" I am easy going", hence; Weiton, Dunn and Hammer (2012) described it as the totality of a complex, organized and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his/her personal experience.

Pastorino and Doyle-Portiho (2018), posited that self-concept is general and changeable at first but as one grows older the self-perception becomes much more detailed and specific. It comprises of three components; physical, social and academic. The physical aspect of self-concept relates to that which is concrete in nature, such as the way an individual looks like, his sexes, heights, weights, the kinds of clothes he wears and the kind of home he lives in. Social self-concept describes how people relate with others while academic self-concept refers to an individual's perception of his or her level of competence or ability within the academic realm. The development of academic self-concept starts from between the ages, 3-5years due to the influence of parents, care givers and early educators. By the ages of 10-11 children have begun the assessment of their academic abilities by comparing their performance in a task or activities with that of their peers. Such internal comparison and perception among students enables them (students) to determine their academic standing relative to their classmates.

In the light of the above, academic self-concept involves a descriptive and an evaluation of one's perceived academic abilities and this encompasses beliefs of self-worth associated with one's perceived academic competence. It is also the measure of students' confidence in their abilities. It informs or gives to the assessors of students the opinions about not only their (students) current task and school related activities but also their (students) future goals and academic aspirations.

Academic self-concept is an important educational and psychological construct that regulates learning and determines motivational orientation. In other words, it is a psychological construct employed to describe a student belief regarding his or her academic ability and can be used to predict the extent to which one is able to accomplish academic tasks successfully or unsuccessfully. This has serious implications for both a student's academic achievement and progress as it can serve as a predictor of academic performance.

As stated by Harworth (2010), academic self-concept may either be positive or negative and may be influenced by several variables. One who scores high on academic activities is presumed to have possessed a positive academic self-concept while one with low scores has a negative or low academic self-concept. Students with high or positive academic self-concept value their own abilities, accept challenges, take risks and try new or harder tasks and they posse higher motivation to complete difficult academic tasks and set higher goals for themselves while students with low or negative academic self-concept exhibit less confidence in their academic aptitudes and at the same time undervalue their talents and avoid situations that create anxiety.

Previous studies on the above variable have found that academic self-concept is related to desirable educational actions, such as course selection (Qiuying, 2016), interest (Trautwein, Ludtke, Marsh, Koller and Baumert, 2006), homework effort (Trautwein, Ludtke, Schnyder and Niggli, 2006), and educational aspiration (Qiuying, 2016). Students' academic self-concept has also been found to be affected by the class achievement level. One theory regarding academic self-concept is the big fish-little pond effect (BFLPE),

proposed by Marsh and colleagues, which has been supported by numerous studies (Marsh, 2005; and Trautwein, Ludtke, Schnyder and Niggli, 2006). The BFLPE posits that students with lower academic self-concept do not achieve high in classes or schools when compared with those with high academic self-concept. For example, Qiuying (2016), compared the academic self-concept, academic locos of control, and achievement expectations between 78 students with learning disabilities and 71 students without disabilities at the middle school level over two years. The results showed that students with LD had lower academic self-concept and lower achievement expectations than students without LD throughout two years.

In an earlier study, Stone and May (2002), investigated academic self-concept and the accuracy of estimation of academic skills between 52 students with LD and 49 students without disabilities at the high school level. The findings suggested that, in comparison with students without disabilities, students with LD had significant lower academic self-concept. Ju, Zhang and Katsiyannis (2013), in an attempt to examine the effects of academic self-concept as well as parents-socio-economic status on students' academic achievement, conducted a study involving 2,950 students, ages 8 to 14, and divided then into two groups: 2,313 elementary students (Grades 1-6) and 637 secondary students (Grades 7-9). The goal of the study was to investigate the reciprocal causal relationship between academic self-concept and students' academic achievement and at the same time between parents' socio-economic status and academic achievement. The researchers used two repeated measurements or instruments in two spaced times including two repeated achievement measure and two separate measurement scales: - academic self-concept and parents' socio-economic scales. The results of these two measures were compared to obtain a general picture of this relationship. The Woodcock-Johnson III Test was used to measure students' academic achievement which consists of reading and mathematics domain. The students' academic self-concept scale (ASCS) was used to measure students' academic self-concept, which consists of three domains self-image, social and academic achievement. These three domains consist of 72 items and the scale was ranged from 1-3 for each item. The result of the research found that at elementary level, there is a reciprocal relationship between prior academic achievement and subsequent academic self-concept and between prior academic self-concept and subsequent academic achievements.

As a result of the fact that family or parents' socio-economic status (SES) and parent involvement influence the learning process as a predictor on both academic achievement and academic self-concept, the researcher examined the effects of these two variables on the result of the first measure of students' academic achievement and academic self-concept. The parents' socio-economic status (SES) was summed by filling out a checklist that targeted five variables and the scores ranged from 0-3, indicating a low to high level of SES. The parent attachment was measured from two sites. (a).Parents/school attachment, which was collected from three items, including (i) Parents attending a school meeting (ii) parents participating in school events and (iii) parents volunteering to assist at school activities. (b).The second measures were home involvement, which was a composite score computed and based on two items, the frequency of helping the child with homework or assignment and talking with the child about school work or activities. The scale ranged from 1-9 indicating a low to high level of home involvement. Also, family

socio economic status (SES) and parent involvement were important predictor factors of academic achievement and academic self-concept. Though there was no significant relationship found between students' academic achievement and academic self-concept, there was however, a significant impact found for parent attachment or involvement and family socio-economic status.

Over the past several decades, academic self-concept has been extensively studied in terms of its' relationship with academic achievement. Numerous studies have found that academic self-concept was substantially and significantly related with academic achievement across academic domains, ages, and culture (Marsh et al., 2015). In the recent meta-analysis reviewing 128 students that examined the relationship between self-related measures (self-concept/self-esteem) and academic achievement, Marsh et al (2005), found that the overall correlation between global self-concept/self-esteem was relatively positive. However, when examining academic self-concept measures, the researchers found the overall correlation coefficient with academic achievement increased significantly.

In a previous meta-analysis, reviewing 56 longitudinal studies that examined the relationship between academic self-concept, self-related beliefs (self-concept, self-esteem, self-efficacy beliefs, and self-description) and academic achievement, Valentine, DuBois and Cooper (2004), prior to Marsh et al., research found that after controlling for initial achievement, self-related belief had a small and positive effect on the subsequent academic achievement. However, it should be noted that Valentine, DuBois and Cooper study found a stronger relationship between academic self-concept, self-related beliefs and academic achievement than the study of the latter when measures of academic self-concept and self-related beliefs and academic achievement were matched by domains. Therefore, academic self-concept and academic achievement had a stronger relationship when there was a match in specific subject between academic self-concept (math self-concept) and academic achievement (math achievement).

Apart from the above empirical results, a number of other researchers had earlier done elaborate researches in this area and many have further engaged themselves in exploring how academic self-concept and students' academic achievement are correlated from a longitudinal perspective. Using longitudinal perspectives therefore, the relationship between academic self-concept and students' academic achievement has been examined and explained in three different theoretical models or theories. These models are the self-enhancement model, skill development model and reciprocal model.

Using the self-enhancement model which has the assumption that academic self-concept has motivational properties that can affect subsequent academic achievement, Marsh et al (2015), examined the relationship between academic self-concept and academic achievement using the data collected from a National Youth in Transition study of all 10th Grade with high school boys. Academic self-concept and school grades of 1456 male students in Grade 10 were collected over four time points during two years' periods (Time 1: early Grade 10, Time 2: late Grade 11, Time 3: late Grade 12, Time 4: one year after high school). The results showed that academic self-concept in previous years can significantly predict students' school grades in Grade 11 and 12. However, students' school grades in previous years did not have a significant predictive effect on subsequent academic self-concept.

Despite the above evidences, the quest for knowledge prompted Qiuying (2016), to investigate the relationship between academic self-concept and academic achievement in a sample of 130 students in Grade 7&8. Participants' global, academic and academic domain-specific (English, Mathematics and Science) as well as self-concept was measured along with their school grades in English, Mathematics and Science over two time points. The results suggested that academic self-concept can significantly predict school grades in the subjects of English, Mathematics and Science, whereas school grades in these three subjects could not predict academic self-concept one year later.

Furthermore, Qiuying (2016), using the skill development model which pointed out that increase in academic achievement improves students' academic self-concept, compared self-enhancement and skill development models among 556 students. Participants' academic self-concept and grade point average (GPA) were collected over five years from Grade 8-12. The results showed that GPA significantly predicted academic self-concept, but not the converse. This predictive effect was much stronger for female students than for male students. The results therefore supported the Skill development model instead of the self-enhancement model.

Skaalvik and Valas (2004), had previously examined the relationship between achievement, academic self-concept and academic motivation in the subjects of Mathematics and Language Arts. The participants consisted of 1,005 elementary and middle school students, completed measures of achievement, academic self-concept and academic motivation in Mathematics and Language Arts over two time points. The results demonstrated that, in both subjects, academic achievement significantly predicted subsequent academic self-concept for the respective subject. However, no evidence was found that academic self-concept predicted later academic achievement. Thus, the study of these researchers supported the skill development model rather than the elf-enhancement model.

The relationship between academic self-concept and academic achievement had also been strengthened using the reciprocal effect model. The model posits that academic self-concept and academic achievement are reciprocally related and facilitate each other. Gauy, Marsh and Boivin (2003), as well as Trautwein, Ludtke, Koller and Baumert (2006), for example had conducted a two-year longitudinal study for 46 second and fourth grade students to examine the relationships between academic self-concept, attribution beliefs, and school grades in mathematics and German. The results of structural equation modelling (SEM) analysis showed that the path coefficient from academic self-concept in Grade 2 to grades in Grade 4 was (.28), and that the path coefficient from grades in Grade 2 to academic self-concept in Grade 4 was (.16), both of which were statistically significant. Similarly, the researchers also examined the relationship between academic self-concept and academic achievement using structural equation modelling (SEM) analysis in a sample of 603 male students in Grades 7-10. School grades in (English, Mathematics and Science), teachers' rating of students' achievement, teachers' rating of homework quality, and academic self-concept were collected over three time points across three years. The results showed that in all the three subjects, most path coefficients from prior academic self-concept to subsequent achievement and from prior academic achievement to subsequent academic self-concept were statistically related. The findings suggested a reciprocal

relationship between academic self-concept and academic achievement. In addition, the magnitudes of path coefficients from academic achievement to subsequent academic self-concept were similar for three school subjects (Mathematics, English and Science), whereas the magnitudes of path coefficients from academic self-concept to subsequent achievement were stronger for Mathematics than for Science and English.

By using longitudinal design to examine or establish the relationship between academic self-concept and academic achievement among three age cohorts of 385 French students in Grades 2, 3 & 4, the results or findings of the above researchers indicated that the reciprocal model was supported both in the entire sample and that of the three age cohorts. This study extended the evidence of other researchers from older, middle and high school students or elementary school children.

Among the Chinese nation, Marsh, Hau and Kong (2002), examined the relationship between academic self-concept, academic achievement, and language of instruction (Chinese vs. English) using a sample of 7802 Hong Kong students in Grade 6. Data were collected over six time points. Standardized tests were conducted in at Time 0 – Time 3 (Grades 6-9) and Time 4 (Grade 11), and academic self-concept was collected at Time 2-Time 5 (Grades 8-11). The result of the structural equation modelling (SEM) analysis revealed that most path coefficients from prior academic self-concept to subsequent achievement and from prior academic achievement to subsequent academic self-concept were statistically significantly. That is, there was support for the reciprocal model. In addition, the magnitude of this reciprocal relationship did not differ on the basis of language of instruction (Chinese vs. English) In the same vein, Marsh and O'Mara (2008), examined the relationship between academic self-concept and school grades as well as educational attainment across five time points (Time1: Grade 10, Time 2: Grade 11, Time 3: Grade 12, Time 4: 1 year after graduation, and Time 5: 5 years after graduation), using a Youth Transition database of all 10^{th} grade boys in public high school in Omar District of Hong Kong, the results showed that academic self-concept had a strong reciprocal relationship with both school grades and educational attainment.

Thus, the majority of relevant studies have provided support for the reciprocal effect model in understanding the relationship between academic self-concept and academic achievement. This therefore has significance for the development of educational interventions and teaching-learning processes as success in students' lives not only depends on cognitive ability but also on the emotional skills. Gliebe, (2012) also reviewed the literature on the effects of social acceptance, academic self-concept, academic achievement and educational development process of exceptional students. The result of the overall findings suggests that 'the development of the whole child requires that parents, care-givers and educators understand the effects of school organization upon both academic self-concept and students' academic achievement'.

Arising from the results of the above studies, Marsh and Seaton (2013), posited that if self-enhancement model is valid, which means that academic self-concept can significantly associate with subsequent academic achievement, the interventions based on enhancing academic self-concept will lead to better academic achievement. If the skill development model is valid, which means that increases in academic achievement can improve students' academic self-concept, parents should provide the necessary supports for their

children academic achievement while educators should make effort to improve students' achievement at schools as the combine efforts will help a great deal in enhancing and promoting positive academic self-concepts among students. Similarly, if the reciprocal effect model is valid, which means that academic self-concept and academic achievement are reciprocally related and facilitate each other, interventions and instructions should be designed based on both academic self-concept and academic achievement at the same time. None the studies were conducted in Edo state hence the need for the present study.

Purpose and Scope of Study

The purpose of this study is to examine the relationship between secondary school students' parental attachment and their academic achievements in Edo State. Specifically, the study seeks to find out: (a) Academic achievement scores of secondary school students in Mathematics in Edo state (b) Academic achievement scores of secondary school students in English language in Edo state (c) Academic self-concept scores of secondary school students in Edo state (d) The relationship between students' academic self-concept and secondary school students' academic achievement scores in mathematics (e) The relationship between students' academic self-concept and secondary school students' academic achievement scores in English language.

This study is delimited to Edo State. It is designed to assess the relationship between secondary school students' academic self-concept and their academic achievements. The study was delimited to students' academic achievement in Mathematics and English Language in secondary school.The study is delimited to senior secondary school students (SSS II) only in Edo State. It is delimited to this class (students) alone because they have been exposed to a good number of achievement tests in the two subjects under study hence they are considered to have been sufficiently experienced and matured enough to respond appropriately to the items of the research instruments.

Research questions

The present study sought to answer the following questions: (a) What is the academic achievement score of secondary school students in Mathematics? (b) What is the academic achievement score of secondary school students in English language? (c) What are the scores of secondary school students on academic self-concept? (d) What is the relationship existing between academic self-concept and secondary school students' academic achievement in Mathematics? (e) What is the relationship existing between academic self-concept and secondary school students' academic achievement in English Language?

Hypotheses

The following hypotheses raised guided the study and they were tested at 0.05 level of significant.

1. There is no significant relationship or correlation existing between students' academic self-concept and their academic achievement in Mathematics.
2. There is no significant relationship or correlation existing between students' academic self-concept and their academic achievement in English Language.

Method

Research design This research adopted a correlational survey design. A correlation design is a kind of design that seeks to establish a relationship between two or more variables as well as indicates the direction and magnitude of the relationship between variables (Nworgu, 2015). This study, therefore intends to examine the relationship between academic self- concepts and students' academic achievement in secondary schools.

*Population of the study*The total population of this study is 64,975 and it comprises of all the SS2 students of the State owned Senior Secondary Schools in the three Senatorial Districts of the State. The Senatorial Districts are as follows: Edo South Senatorial District with 30,090 students; Edo Central Senatorial District with 14,584 students and Edo North Senatorial which has 20,301 students (The Educator, 2018). Total population of this study which is 64,975 Students in SSII was considered appropriate for this study because the students have been exposed to series of achievement tests and at the same time are matured to handle the issues in the instrument better.

Sample and sampling technique The sample size of this study is 1,201 SSII Students. This number represents approximately 1.85% of the total population of students in SSII in 2018/2019 academic year in the state owned secondary schools. The reasons for the sample size was to enable the researcher have a fair and adequate representative sample of the population. The sampling procedure employed in selecting the sample size and the schools sampled for the study is the simple random sampling technique. The schools in each of the three Senatorial Districts of the State were identified and categorized into strata, and ten (10) schools were chosen in each of the Senatorial District or Educational zone. This brought a total of 30 schools selected for the study. From each of the schools, forty (40) were students each were randomly selected from 29 schools while forty-one (41) students were from 1 school. These, together gave a total population of 1201 SSII students that form the sample size of the study.

Instruments for data collection The instrument for the study comprised of academic self-concept scale (ASCS) and the students' termly results. The original version of the academic self-concept scale was developed by Lice & Wang (2005). It was adopted with its Psychometric properties. There are 30 items in academic self-concept scale (ASCS). It was structured to assess and determine students' academic confidence, effort and reliance. The items included both negatively and positively worded items to check met lying from students. The questionnaire was in four-point scale of always, sometimes, rarely and never. The weighting points ranges from 1 to 4 with never having 1 point, rarely 2 points, sometimes 3 points and always 4 points. The raw scores of students' achievements in Mathematics and English Language in a term were collected from students' academic records through their form masters/mistresses as the case may be.

*Validation and Reliability of the instrument*The instrument was adopted as a standardized instrument. So no further validity was done.The internal consistency reliability of the instrument established by the original authors of the inventory was adopted by the researchers in this study. Hence, the reliability co-efficient alpha for academic self-concept was 0.84.

*Method of data collection*The administration of the instruments was done through direct delivery approach. By this method, copies of the questionnaires were distributed personally to the respondents by the researchers with the help of six research assistants.

*Method of data analysis*The research questions were analysed using aggregate or summated scores. Research questions 1-3 were answered using aggregate or summated scores, while research questions 4 and 5 were answered using Pearson Product Moment Correlation Coefficient.Hypotheses 1and 2 were tested using simple regression analysis. The scores of students' academic achievement in Mathematics and English Language were reported as aggregate or summated scores and these ranged from 0-100 as follows:

Excellent Achievement	=70-100
Very Good Achievement	=60-69
Good Achievement	=50-59
Fair Achievement	=40-49
While poor achievement	=0-39

Decision rules for judging the resulting correlation coefficient for academic self-concept and achievements were as follows:

Very low positive or negative relationship was: + or -0.00 to 0.20,
Low positive or negative relationship was: + or -0.20 to 0.40,
Moderate positive or negative relationship was: + or -0.40 to 0.60,
High positive or negative relationship was: + or -0.60 to 0.80,
Very high positive or negative relationship was: + or -0.08 and above.

*The norm*The established norms for the Academic self-concept scale = 75
Decision: Scores of academic self-concept that is 75% and above was regarded as good or positive academic self-concept.

Results

Research Question 1

What are the academic self-concept scores of secondary school students in Edo state?

Table 1: ACADEMIC SELF-CONCEPT SCORES OF SECONDARY SCHOOL STUDENTS IN EDO STATE

Range of Scores	N	%	Remark
30-74	159	13.2	Poor academic self-concept
75-120	1042	86.8	Good academic self-concept

Table 1 indicates that 1042(86.8%) of the secondary school students with the scores ranging from 75 and 120 have good academic self-concept, while 159(13.2%) others who scored between 30 and 74 have poor academic self-concept.

Research Question 2

What are the academic achievement scores of secondary school students in mathematics?

Table 2: ACADEMIC ACHIEVEMENT SCORES OF SECONDARY SCHOOL STUDENTS IN MATHEMATICS

Mathematics scores	N	%	Remarks
70-100	232	19.3	Excellent achievement
60-69	409	34.0	Very good achievement
50-59	354	29.5	Good achievement
40-49	173	14.4	Fair achievement
0-39	33	2.7	Poor achievement

Table 2 shows that 232(19.3%) of the secondary school students with the scores ranging from 70 and 100 have excellent academic achievement in mathematics, 409(34.0%) of the students who scored between 60 and 69 as well as 354(29.5%) of the students who scored between 50 and 59 have very good and good achievement in mathematics respectively. However, 173(14.4%) of the students who scored between 40 and 49 have fair achievement; while 33 (2.7%) of the students have poor achievement in mathematics.

Research Question 3

What are the academic achievement scores of secondary school students in English language?

Table 3: ACADEMIC ACHIEVEMENT SCORES OF SECONDARY SCHOOL STUDENTS IN ENGLISH LANGUAGE

English Language scores	N	%	Remarks
70-100	378	31.5	Excellent achievement
60-69	564	46.9	Very good achievement
50-59	206	17.2	Good achievement
40-49	45	3.7	Fair achievement
0-39	8	0.7	Poor achievement

Table 3 reveals that 378(31.5%) of the secondary school students with the scores ranging from 70 and 100 have excellent academic achievement in English language, 564(46.9%) of the students who scored between 60 and 69 have good achievement in English language; while 8 (0.7%) of the students have poor achievement in English language.

Research Question 4

What is the relationship existing between secondary school students' academic self-concept and their achievement in mathematics?

Table 4: PEARSON R ON SECONDARY SCHOOL STUDENTS' ACADEMIC SELF-CONCEPT AND THEIR ACHIEVEMENT IN MATHEMATICS

Source of Variation	N	Academic self-concept r	Mathematics r	Remarks
Academic self-concept	1201	1.00	-0.03	Very low or no Relationship
Mathematics	1201	-0.03	1.00	

In table 4 it was observed that very low or no relationship of -0.03 exist between secondary school students' academic self-concept and their achievement in mathematics.

Research Question 5

What type of relationship exists between secondary school students' academic self-concept and their achievement in English language?

Table 5: PEARSON R ON SECONDARY SCHOOL STUDENTS' ACADEMIC SELF-CONCEPT AND THEIR ACHIEVEMENT IN ENGLISH LANGUAGE

Source of Variation	N	Academic self-concept r	English language r	Remarks
Academic self -concept	1201	1.00	-0.01	Very low or no Relationship
English language	1201	-0.01	1.00	

Table 5 shows that low or no relationship of -0.01 exists between secondary school students' academic self-concept and their achievement in English language.

Testing the Null Hypotheses

Null Hypothesis 1

The type of relationship existing between secondary school students' academic self-concept and their achievement in mathematics is not significant.

Table 6: SIMPLE REGRESSION ON THE RELATIONSHIP EXISTING BETWEEN SECONDARY SCHOOL STUDENTS' ACADEMIC SELF-CONCEPT AND THEIR ACHIEVEMENT IN MATHEMATICS

N	Cal.r	df	Beta	Cal.t	Pvalue	Remarks
1201	-0.03	1199	-.032	-1.073	0.283	NS

NS = Not Significant

Table 6 reveals that at 0.05 level of significance and 1199df, the calculated t 1.07 with Pvalue 0.283 which is greater than 0.05, the second null hypothesis is accepted. The relationship existing between secondary school students' academic self-concept and their achievement in mathematics is not significant.

Null Hypothesis 2

The type of relationship existing between secondary school students' academic self-concept and their achievement in English language is not significant.

Table 7: SIMPLE REGRESSION ON THE RELATIONSHIP EXISTING BETWEEN SECONDARY SCHOOL STUDENTS' ACADEMIC SELF-CONCEPT AND THEIR ACHIEVEMENT IN ENGLISH LANGUAGE

N	Cal.r	Df	Beta	Cal.t	Pvalue	Remarks
1201	-0.01	1199	-.034	-1.136	0.256	NS

NS = Not Significant

Table 7 indicates that at 0.05 level of significance and 1199df, the calculated t 1.14 with Pvalue 0.256 which is greater than 0.05, the fifth null hypothesis is accepted. The

relationship existing between secondary school students' academic self-concept and their achievement in English language is not significant.

Discussion of Findings

The findings of the study are discussed under the following subheading:

Relationship existing between secondary school students' academic self-concept and their academic achievement in Mathematics and English Language

As regards secondary school students' academic self-concept and their academic achievement, findings from analysis revealed among others that majority of students 1,042 (86.8%) have good academic self-concept; that low or no relationship of -0.03 exists between secondary school students' academic self-concept and their academic achievement in Mathematics, while very low or no relationship of -0.01 exists between secondary school students' academic self-concept and their achievement in English Language.

Though results from previous studies conducted by several scholars such as Gauy, Ratelle, Roy and Litalian (2010) Obilor (2012) and Oluwatayo (2011) showed a positive and statistically significant relationship between secondary school students' academic self-concept and their academic achievement, findings from this study however, underscores the importance of how students feel about their competence and ability to be successful in their educational achievement. This is because, results of the findings revealed that the relationship existing between secondary school students' academic self-concept and their academic achievement in Mathematics and English Language is not significant at 0.05 level of significance.

Despite the fact that result of this study revealed a statistically significant difference from the popular opinion of previous researchers who had extensively researched on this variable, it is important to emphasize that the views students hold about their academic competence and capability are valuable indexes which have the potential to facilitate the realization of students' goals in a range of settings including academic achievement in schools.

Since it is a general belief; and, as it has been established empirically that when academic self-concept of student increases, their academic achievement will also increase linearly and symmetrically, there is need for parents, teachers, guidance counsellors and educators to assist students in building and developing positive academic self-concept which will significantly improve their academic achievement. This view has been consolidated by the study of Oluwatayo (2011), and the findings of Ochieng (2015), which posited that positive academic self-concept is indispensable in secondary school students' academic achievement.

Conclusion and Recommendations

The study established that the correlation existing among secondary school students' academic self-concept and their academic achievement was neither significant in Mathematics nor in English Language.

Based on the findings of this study, the following recommendations have become necessary. (a) The actions and reactions of parents, teachers, educators, counsellors and

significant others towards students' learning and achievement should be such that are intended to encourage, suggest, assure, reinforce and promote healthy development of students' positive academic self-concept in students. (b) The school psychologists should work towards enhancing the students' academic self-concept and promote positive academic achievement among students.

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