

RELATIONSHIP BETWEEN ACADEMIC SELF-CONCEPT AND ACADEMIC ACHIEVEMENT: EVIDENCE FROM SENIOR SECONDARY SCHOOL STUDENTS IN EDO NORTH SENATORIAL DISTRICT

PHILIP AZETTA ARHEDO¹, POLYCARP ILEMETOR AGWEDA^{2*}

^{1,2}Department of Guidance and Counselling, Faculty of Education,
Ambrose Alli University, Ekpoma, Edo state

*Corresponding email: agwedapolycarp@gmail.com

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Abstract

The study investigated the relationship between academic self-concept and academic achievement of Senior Secondary School Students in Edo North Senatorial District. A survey research design was adopted to achieve the aim of the study. The population of the study consisted of 5,935 Senior Secondary School - One (SSSI) students in the 107 public secondary schools in Edo North Senatorial District. A sample of 362 Senior Secondary School-One (SSSI) students was used for the study. Academic Self-Concept Questionnaire (ASCQ) was used for collection data from learners in senior secondary schools in the area. Content validation of the instrument was carried out to ensure that the items in the questionnaire were clear and unambiguous. A Cronbach reliability coefficient of 0.77 was obtained for academic self-concept. The authors administered the questionnaire (ASCQ) on students. Research question provided was answered using Mean (\bar{X}) and Standard deviation (SD). The results showed that the level of academic self-concept of Senior Secondary Schools Students in Edo North Senatorial District was high. The result further showed that there was a positive/significant relationship between academic self-concept and academic achievement of Senior Secondary School Students in Edo North Senatorial District. Based on the findings it was therefore recommended that school authorities should ensure that students with low academic self-concept were provided with an intervention support to improve on their academic achievement.

Keywords: *Academic Achievement, Academic Self-Concept, Edo North Senatorial District, Senior Secondary School Students.*

Introduction

Education defines the behavioural pattern of the individual. Education has been acclaimed as an important instrument necessary for effecting National change and Development in every given Society. It is a tool that plays the pivotal role of bringing about political, moral, human and socio-economic changes in the lives of citizens in a given nation (Federal Republic of Nigeria, FRN, 2013). Post-Basic Education with Career Development is very important in the school curriculum. Post-Basic education is specified to provide holders of the Basic Education Certificates in diversified

curriculum to cater for the differences in talents, disposition, opportunities and future roles (FRN, 2013). It was also aimed at providing trained manpower in the applied sciences, technology and commerce at sub-professional grades. It also provides the learners entrepreneurial, technical and vocational job-specific skills for self-reliance, and for agricultural, industrial, commercial and economic development. And to raise morally upright and well-adjusted individuals who can think independently and rationally, respect the views and feelings of others and appreciate the dignity of labour. Akinboye (2003) accentuated that learners must have high level of self-concept.

Learning outcome of a student on a subject or group of subjects after a period of class instructions is often referred to as academic achievement. Duruji, Azuh and Oviasogie (2014) noted that the conventional approach for measuring level of academic achievement of a student on a subject or group of subjects within a period of instruction is often expressed in standard grades of percentages for instance: 70-100% (Excellent/Distinction), 60-69% (Very Good), 50-59% (Good/Credit/Average), 40-49% (Pass), and below 40% (Fail). Academic achievement could be rated as the level of performance that is exhibited by a learner. In other words, it is the degree of success attained at the end of an academic exercise which can be conceived to mean the extent one is able to accomplish after learning has taken place, or the level of efficiency and knowledge demonstrated by an individual after learning has occurred (Irogbo, 2002). Aiken (2000) defined achievement as the degree to which an ability or skill has been attained Anastas (2000) asserted that it is the aspect of measuring the effects of certain standardized sets of experience and noted that it is related to the classroom alone. that achievement is measured based on the student's performance in a test or examination in which the outcome is the achievement.

For instance, academic self-concept describes the set of attitudes, beliefs, and perception held by students about their academic skills and performance. It refers to how a person feels about himself or herself within a school or academic setting, or in relation to a student's academic progress. Furthermore, it is hierarchically organized, and multifaceted in various dimensions or component parts such as Mathematics self-concept, verbal self-concept, and school self-concept (Bracken, 2009). Level of self-concept just like any motivation or morale is not necessarily static but varies in relation to its various component parts. It is noted that the levels of self-concept associated with competencies fall into three clusters such as Mathematics self-concept, school self-concept and verbal self-concept (Shaljan, 2011). The author argued from two extreme points that the complete absence or possession of the three competencies is rare. Hence, while some students demonstrate the high possession of one or more competencies, some exhibit low levels of others. This explains that a student for instance, may be high in school self-concept and low in verbal self-concept, while another could exhibit high level of verbal self-concept but be relatively low in one or more other competencies – such as Mathematics self-concept.

Statement of the Problem

English language and Mathematics are considered prerequisites for taking other subjects in higher institution. Students who want to offer courses like Law, Mass Communication and History must pass English language while those that want to study Economics, Accounting, Banking, or any course in the natural sciences must pass Mathematics at credit level in Senior Secondary School Certificate Examination to gain admission into any Nigerian tertiary institution. Poor academic performance in English language and Mathematics can be very frustrating and saddening. Unfortunately, Akinfe, Olofinniyi and Fashiku (2012) noted that academic achievement of students in English language and Mathematics in the past one decade has been on the decline. They observed that students failed because of the following deficiencies; weakness in skills of writing, construction of loose sentences, transliteration from the mother tongue and abuse of the basic rules of grammar. Candidate's errors were listed under wrong spellings, wrong usage of concord, tense usage and

wrong construction of verb. Mass failure of students could be attributed to ignorance of the proper use of punctuation marks, proper use of capital letters and small letters; inability for students to appropriately use present and past tenses, wrong expressions, poor use of parts of speech and their functions in sentences.

Abe (2014) observed decline in students' academic achievement in Mathematics. The author noted that only 41.95%, 36.7%, 37.97% and 29.17% passed the May/June Senior Secondary Certificate Examination (SSCE) in 2010, 2011, 2012 and 2013. Students' academic achievement in the past few decades has recorded abysmal performance in both external and internal examinations. Unfortunately, academic self-concept predicting academic performance of students in Senior Secondary Schools in Edo North Senatorial District has not received a significant amount of attention. Therefore, the academic performance of students in Senior Secondary Schools in Edo North Senatorial District require further research. It is on this basis that the authors decided to embark on this present study to investigate the extent to which academic self-concept can predict academic performance of Senior Secondary School Students in Edo North Senatorial District.

Purpose of the Study:

The purpose of this study was to investigate the extent to which academic self-concept can predict academic achievement of Senior Secondary School Students in Edo North Senatorial District. Specifically, the study seeks to determine:

1. the level of academic self-concept of Senior Secondary Schools Students in Edo North Senatorial District.
2. the relationship between academic self-concept and academic achievement of Senior Secondary School Students in Edo North Senatorial District.

Research-Question

The following research questions guided the study.

Research Question: What is the level of academic self-concept among Senior Secondary School Students in Edo North Senatorial District?

Research Hypothesis

The following null hypotheses guided the study.

Research Hypothesis: There is no significant relationship between academic self-concept and academic achievement of Senior Secondary School Students in Edo North Senatorial District.

Method

Research Design

The study adopted a survey research design to achieve the purpose of the study. The study was correlational in nature because the authors was concerned with analyzing the strength or magnitude of association between two or more variables in a given geographical domain.

Population and Sampling Procedure

The population of the study consisted of 5,935 Senior Secondary School (SSS1) students in 107 public senior secondary schools in Edo North Senatorial District. 10% of all the schools in each local Government were drawn for the district, which implied that 17 public senior secondary schools were used for the study. A multi-stage sampling method was used to select 362 SSS 1 students for the study. In the first stage, the authors draw an approximate number of 10% as a representative sample for all the public senior secondary schools in each local government. In the second stage, the authors employed a simple random procedure to select the number of representative schools per local government. Using a simple random procedure, all the names of the public senior secondary schools in each local government was written on folded pieces of paper. The authors picked the number of papers as representative schools from which a sample can be drawn to represent a local government. Lastly, the proportionate random sampling procedure was used to select 50% of SSS 1 students from the selected schools for the study. This amounted to a total of 362 students representing 50% of the SSS 1 students of the sampled schools.

Research Instrument

The instrument used for data collection was a questionnaire with academic performance Pro-forma. The instrument, titled: Academic Self-Concept Questionnaire (ASCQ) was used for data collection on academic self-concept. All the items were rated on a four-point rating scale of 4=Very Well, 3=Fairly Well, 2=Quite Poorly, 1=Not at all. A benchmark of the mean score of 2.50 was used to determine high or low self-concept. A benchmark of the mean score of 1.00 to 2.49 was used to considered low self-concept, and the mean score of 2.50 and above was used to considered high self-concept.

The academic performance pro-forma was used to collate data on academic performance of students in their last JSSCE in English Language and Mathematics. To fit into the four-point rating scale of the independent variable (Academic Self-Concept) and the conventional grading of students' academic achievements were operationally modified to a four-point rating scale, therefore: 70 - 100% (A-grade) = 4; 60 - 69% (B-Grade) = 3; 50- 59% (C-Grade) = 2; 49% and below (D&F-Grade) = 1. Since the scores were rated in ordinal levels of 4, 3, 2, and 1, the mean score of 2.50 and above was taken as high academic performance while a mean score of 1.00 - 2.49 was taken as low academic performance.

Validation and Reliability of Research Instrument

The content validity of the instrument was carried out to ensure that the items in the instrument were clear and unambiguous. This was done by two experts in Measurement and Evaluation and the corrections were effected into the instrument before they were administered on the respondents. A split-half reliability method was adopted to determine the instrument reliability. A group of 30 students outside the study sample was included in a pilot test. Pearson Product Moment Correlation Coefficient (PPMCC) was used to determine the internal consistency of the items in the instrument. A coefficient value of 0.77 were obtained and the instrument was considered to be highly reliable for data collection.

Data Collection Procedure

Copies of the questionnaire were administered on SSS1 students and retrieved from them on the spot. The students' academic achievements in English Language and Mathematics in their last JSSCE were collated using a Pro-forma.

Data Analysis

Research questions were analyzed using mean and standard deviation. Research hypothesis were tested using PPMCC. A mean score of 2.50 was used as the benchmark for determining level of academic self-concept. This was obtained by adding up the four (4) likert type scale (4=Strongly Agree, 3=Agree, 2=Disagree and 1=Strongly Disagree) and dividing the sum of the scales (10) by the total number of scales (4) to give 2.50. Therefore, a mean score of 2.50 represented high academic self-concept while 1.00 to 2.49 represented low academic self-concept.

The decision on the significance of the PPMCC is reached by comparing the p-value (probability value of the correlation coefficient or what is otherwise abbreviated as sig. value) in relation to the predetermined level of significance at which the hypothesis is tested. Therefore, the decision rule for rejecting the null hypothesis is if only the p-value (or sig. value) is less than the level of significance. That is, the $p < 0.05$. Hence, the null hypothesis was retained when the p-value (or sig. value) was greater than the level of significance or significance level (That is, the $p > 0.05$).

Results

Research Question: What is the level of academic self-concept among Senior Secondary School Students in Edo North Senatorial District?

Table 1: Mean and Standard Deviation on the Level of Academic Self-Concept of Senior Secondary School Students in Edo North Senatorial District.

s/n	Items	N=362		
		\bar{X}	SD	Remarks
1	Students come to me for help in most school subjects	2.92	.001	Agreed
2	If I worked hard I could become one of the best students	2.95	.081	Agreed
3	I learn things quickly in most school subjects	2.21	.018	Disagreed
4	I do well in tests in most school subjects	2.47	.214	Disagreed
5	I am good at most school subjects	2.37	.265	Disagreed
6	I am at school to get into a good university	2.54	.357	Agreed
7	I get good marks in most school subjects	2.55	.198	Agreed
8	I am optimistic of good grade in most school subjects	2.43	.205	Disagreed
9	I have trouble with most school subjects	2.57	.217	Agreed
10	Most school subjects are just go easy for me	2.67	.304	Agreed
11	I look forward to English classes	3.13	.978	Agreed
12	Work in English classes is easy for me	2.92	.052	Agreed
13	English is one of my best subjects	2.53	.097	Agreed
14	I get good marks in English	2.59	.231	Agreed
15	I learn things quickly in English classes	2.53	.281	Agreed
16	I am hopeless in English classes	2.25	.227	Disagreed
17	I do badly on tests that need a lot of reading ability	2.30	.022	Disagreed

18	I am not very good at reading	2.12	.011	Disagreed
19	I hate reading	2.22	.014	Disagreed
20	I look forward to English classes	2.08	.110	Disagreed
21	English Language is one of my best subjects	3.07	.032	Agreed
22	I look forward to mathematics classes	2.54	.094	Agreed
Mean Score =2.54				

* Significant mean ($\bar{X} \geq 2.50$)

Result in Table 1 showed that the respondents obtained mean score of 2.50 and above on the numbers 1, 2, 6, 7, 9, 10, 11, 12, 13, 14, 15, 21 and 22 at a mean score ranging from 2.53 to 3.13. But had mean scores of less than 2.50 on the items 3, 4, 5, 8, 16, 17, 18, 19 and 20 at a mean range of 2.12 to 2.47 respectively. The overall mean score result was 2.57. This showed a high level of academic self-concept among Senior Secondary School Students in Edo North Senatorial District.

Hypothesis Testing

Research Hypothesis: There is no significant relationship between academic self-concept and academic achievement of Senior Secondary School Students in Edo North Senatorial District.

Table 2: Pearson’s Correlation between Academic Self-Concept and Academic Achievement of Senior Secondary School Students in Edo North Senatorial District.

Variables	N	\bar{X}	SD	r	p	Decision
Academic self-concept	362	2.54	0.707	0.245**	0.000	Null hypothesis rejected (p<0.05)
Academic achievement		2.55	0.728			

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

Note: Pearson r- coefficient $\pm 0.00 - 0.39 =$ Weak relationship

Pearson r- coefficient $\pm 0.40 - 0.69 =$ Moderate relationship

Pearson r- coefficient $\pm 0.70 - 1.00 =$ Strong relationship

Table 2 showed that the mean and standard deviation scores of the respondents (N=362) were 2.54 and 0.707 for academic self-concept and 2.55 and 0.728 for the academic achievement respectively while the Pearson correlation coefficient of 0.245 was statistically significant (p<0.05). Therefore, the null hypothesis was rejected while the alternate hypothesis was accepted. This indicated that there was a weak and significant relationship between academic self-concept and academic achievement of Senior Secondary Schools Student in Edo North Senatorial District.

Discussion

The result of research question showed that the level of academic self-concept of Senior Secondary School Student in Edo North Senatorial District was high. This result could be due to the fact that many of the students are awakened to the realization of their academic potential towards attaining the academic goals they have set on every subject for the term. This further explains that

the first thing students must understand in order to have successful achievement is themselves – their abilities, their potentials, their interest, their strengths, their weakness, among others. This therefore, justifies the fact that students with high self-concept will have higher achievement in their academic.

The result agreed with the study conducted by Tenaw (2013) who found that students' level of academic self-concept is medium (50.08). That is, they have an average academic self-concepts. The result is in line of the study conducted by Taran, Kalantari, Dahaghin and Abhari (2015) who found that student have high mean score rating in their academic self-concepts. The result corroborates that of Mohammed, Atagana and Edawoke (2014) who asserted that students' academic self-concept and academic achievement was low with a score rating of below 2.50. The result is in line with that of Akram and Ghazanfar (2014) that students seem to have a low performance in their academic self-concepts

The result of research hypothesis showed that there is a significant relationship between academic self-concept and academic achievement of Senior Secondary Schools Student in Edo North Senatorial District. The result agrees with the study conducted by Nwankwo, Balogun, Chukwudi and Ibeme (2013) who found that a significant positive relationship exists between academic self-concept and academic achievement of well-functioning adolescents. The result corroborated the study conducted by Hasheminasab, Zarandi, Azizi and Zadeh (2014) who found that self-concept predicted students' academic achievement. The result also supported the study conducted by Goulão (2014) who found that students' level of self-concept is high and a significant relationship exists between self-concept and academic achievement. The result also supported the study conducted by Yazachew (2013) who found that students' level of self-concept was at the low level but strongly correlated with students' achievement. In the same vein, the result of the present study corroborated that of Balami (2015) who found a positive correlation between learner's self-concept and academic achievement. The result also supported that of Alias, Akasah and Kesot (2016) who found that the mean rating on self-concept and students' achievement was high and correlated. The result is in line with that of Husain (2014) who found that self-concept and academic achievement was correlated.

Conclusion

The result from the present study showed that the level of academic self-concept of Senior Secondary School Students in Edo North Senatorial District was high. The result from the present study further showed that there was a significant positive relationship between academic self-concept and academic achievement of Senior Secondary School Students in Edo North Senatorial District.

Recommendation

Based on the findings of the study, the authors recommended that School authorities should endeavour to identify students with low academic self-concept and provide them an intervention plan to support them academically in other to promote their academic achievement.

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