

## THE RELATIONSHIP AMONG GENDER, ACADEMIC SELF-CONCEPT AND ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS IN AWKA URBAN

**Anierobi, Elizabeth Ifeoma**

Department of Educational Foundations, Faculty of Education,  
Nnamdi Azikiwe University, Awka

### **Abstract**

*Academic achievement of students predicts the quality of graduates anticipated to be produced by various schools. These graduates eventually become the leaders and form the human resource of the society, irrespective of their gender. This study sought to determine the relationship among gender, academic self-concept and academic achievement of secondary school students. A correlational design was utilized in this study which was carried out in Awka Urban. A purposive sample of 80 SS2 students formed the participants for the study. Three research questions and three hypotheses guided the study. The instrument for data collection was Academic Self-Concept Questionnaire (ASCQ) adapted from Yan and Yates (2007) which was validated by two experts in the Faculty of Education and Students' previous term result overall average obtained from the selected schools. The reliability of ASCQ was determined using test retest and analyzed Pearson moment correlation coefficient and a coefficient of 0.72 obtained indicating that the instrument was reliable. The data collected was analyzed using Pearson moment correlation with the Statistical Package for Social Sciences (SPSS) version 20 of 2011. It was found that gender was not a significant factor in measuring students' academic self-concept. It also revealed that gender has no significant relation with students' academic achievement, while academic self-concept and academic achievement has a strong and positive correlation. The implementing of psycho-educational programmes, seminars and workshops to provide opportunities for students to express themselves and thus develop their self-esteem and self-confidence which will, in turn, positively impact their academic self-concept was recommended.*

**Keywords:** Academic self-concept, academic achievement, gender, secondary school students, Awka

### **Introduction**

Self-concept is a widely researched concept in psychology and it is perceived as an important construct in educational psychology. Although self-

concept has received much interest in psychological research over a long period of time, researchers find it difficult to come up with a unanimous, accepted definition of the term, due to the fact that it has been approached from differing theoretical perspectives. Nonetheless, there appears to be agreement among researchers that self-concept has multi-dimensional nature (Ghazvini, 2011). According to Lawrence (1996) cited in Affum-Osei, Eric, Barnie & Forkuoh (2014), there are three aspects of self-concept which are; self-image (of what the person is), ideal self (what the person wants to be), and self-esteem (what the person feels about the discrepancy between what she/he is and what she/he would like to be). It may also be defined as the set of perceptions that a person has about himself/herself, the set of characteristics, attributes, qualities, deficiencies, capacities, limits, values and relationships that the subject knows to be descriptive (Zahra, 2010). It is the totality of a people's perception about their physical, social, and academic competence (Hanan, Shabana, & Mona, 2016). It could simply be referred to as the image that one has of oneself. Among the six specific domains related to self-concept, researchers focus more on its dimension of education (Kendra, 2018; Baran, 2011).

In a way, the term 'academic self-concept' can be defined from descriptive and evaluative perspectives in line with Shavelson model (Tan & Yates, 2007). In line with the descriptive perspective of self-concept, (Tang, 2011) has defined it as the conception of oneself in academic activities in relation to specific subjects, teachers and schools. Similarly, it was perceived as a construct concerned with one's attitudes, feelings, and perceptions about one's intellectual or academic capabilities, representing one's self-beliefs and self-feeling in academic setting (Izuchi & Onyekuru, 2011). Academic self-concept has also been defined as student perception of self as learner and how she/he interacts with the learning environment (Affum-Osei, Eric, Barnie & Forkuoh, 2014). On the other hand, Trautwein, Ludtke, Koller, & Baumert (2006) referred to it as a person's self-evaluation regarding specific academic domains or abilities. Academic self-concept could therefore be regarded as students' perception and evaluation of their general academic abilities or in relation to specific subjects and academic setting which could be positive or negative.

Positive academic self-concept is attributed to students that are confident and sure of themselves, possess good interests, objective and not too sensitive while the opposite is true of students with negative academic self-concept (Hanan, Shabana, & Mona, 2016). According to Hanan et. al, these students may accept criticisms from others and have the ability to express their views regarding their academic activities; they are also more determined in

class activities with lower nervousness and have higher expectations of future success. Interestingly, some researchers traced the development of academic self-concept to the early formative years of a child, construing that it develops with the child's mental and physical growth but tends to decline as the child grows older (Hanan, Shabana, & Mona, 2016; Guay, Marsh, & Boivin, 2003). Others construe that it develops from consistent academic successes and failures over a period of time especially at formative stage of children's development (Izuchi, & Onyekuru, 2017; Ghazvini, 2011).

Nevertheless, the underlying factor remains that its development starts from childhood. It could, therefore, be deduced that the significant figures in a child's life such as the parents, teachers, peers, one's own self and siblings could play an important role in building or destroying a child's academic self-concept. Researchers agreed that the establishment of a student's academic self-concept is built by the student's nature, maturity and his natural surroundings (Azizi, 2009; Wilson, 2009). Although, parents, peers, media, society, and culture in one way or the other influence the child's academic self-concept, Matsumoto and Juang (2008) asserted that school and teachers have a direct effect on the child's feelings, inspirations and attitudes as well as on their academic achievement. Therefore, efforts of parents and teachers should be geared toward providing qualitative education to children, especially in the formative stage of their lives geared towards academic success.

Academic success or achievement is one of the leading concerns of parents and other stakeholders of education. It could be referred to as the outcome of education, that is, the extent to which student, teacher, or institution achieved proficiency in pre-specified educational goals (Akanwa, 2016). All the efforts of teaching and learning are, therefore, targeted towards academic achievement of students around which the wheels of education revolves. Academic achievement is usually measured by tests, examinations or continuous assessment. Nobel, Roberts and Sanyer (2006) cited in Akanwa (2016) posited that a number of factors that affect academic achievement range from background characteristics, and perception of self, while another construed that the grades obtained by students are often influenced by factors ranging from the quality of school attended, interest and attitude of students to their academic activities, to the quality of successive teachers encountered (Izuchi & Onyekuru, 2017). No wonder some parents prefer public schools to private schools while others prefer private schools to public schools, all in a bid to ensuring that their wards have good academic achievement. It was observed that academic self-concept has a significant consequence on academic performance and vice versa and that such a relation is valid cross-

culturally (Hanan, Shabana, & Mona, 2016) and one's academic performance determines one's academic achievement.

Gender as used in this paper refers to the state of being a male or a female. Empirical studies have been conducted by researchers in the quest to find out the relationship between students' gender and their academic self-concept. It has been reported that males and females differ in their beliefs about their academic competences (Ireson & Hallan, 2001), with a wide gap in how males develop their self-concept as compared with their female counterparts (Hanan, Shabana & Mona, 2016). On the other hand, Matovu (2012) in his study revealed that female students had higher academic effort compared to their male counterparts.

Gender has been underscored to influence academic achievement in various studies done among students by researchers. SarAbadani Tafreshi (2006) found that there was a significant difference in the academic achievement of male and female students; while Zembar and Blume (2011) observed that on average girls did better in school than boys. Others found a significant statistical low correlation between gender and academic performance, implying that gender was not a significant factor to consider when measuring academic achievements of students (Hanan, Shabana, & Mona, 2016; Bacon, 2011).

Studies conducted on the relationship between academic self-concept and academic achievement revealed that one could say authoritatively that the two variables positively influence one another. Hanan, Shabana, & Mona (2016) as pointed out earlier in their study, found a significant association between academic self-concept and academic achievement. In particular, they observed that although those students had good academic self-concept, they have difficulty in concentration and understanding. It could be deduced that difficulty in concentration and understanding exhibited by those students with good academic self-concept could hamper their academic achievement. However, differing from the findings by Hanan et. al, other researchers in their studies found a positive and significant relationship between students' academic self-concept and academic achievement (Izuchi and Onyekuru, 2017; Tang, 2011; Yara, 2010). In his own study, Ghazvini (2011) found a close relationship between academic self-concept and measures of academic performance in high school students. This could be inferred that at the relationship between the two variables is not static.

From the above empirical studies, it may be glaring that researchers showed relentless support towards the belief that there is an undeniable relationship between gender, academic self-concept and academic achievements of students. The desire of every parent and other stakeholders of

education is for students to have good academic concept with good grades whether male or female. It is believed that education (especially western education) is power and key to a successful life. Good grades are always interpreted as good academic achievement and success which attract good certificates to students. Academic experiences of success or failure no doubt, affect students' academic self-concept irrespective of their gender. Consistent academic failures have been attributed to as a contributory factor towards negative academic concept. This present study, therefore, intends to provide empirical information to parents, teachers, and counsellors on the relationships among gender, academic self-concept and academic achievement of students to better help the students where necessary. To give direction to the study, two research questions have been formulated and answered and two hypotheses tested at 0.05 level of significance. They are as follows:

1. What is the relationship between students' gender and their academic self-concept?
2. Is there a relationship between students' gender and their academic achievement?
3. What is the relationship between students' self-concept and their academic achievement?

Ho<sub>1</sub>: There is no significant relationship between students' gender and their academic self-concept.

Ho<sub>2</sub>: There is no significant relationship between students' gender and their academic achievement.

Ho<sub>3</sub>: There is no significant relationship between students' self-concept and their academic achievement.

## **Method**

The study employed correlational research design. The participants for the study consisted of sample purposively drawn from four secondary schools in Awka urban comprising two public and two private secondary schools. 20 participants were randomly selected from SS2 class of each selected school making the total number of participants for the study to 80. Specifically SS2 A and B of each of the selected schools were purposely used to cover the Arts and Science students. After the distribution of the questionnaire, the total number of well filled questionnaires returned was 76 and used for the analysis.

Academic self-concept of the students was measured using Academic Self-Concept Questionnaire developed by Liu and Wang (2005) adapted from Yan and Yates (2007). The instrument was a 20-item questionnaire with two sub-scales: academic confidence and academic effort, each with 10-items to

collect the students' academic self-concept information. The scale included both negatively and positively worded items. The items for both scales were mixed in the scale in such a way that academic confidence items took odd numbers (1,3,5,7,9,11,13,15, 17, 19), while academic effort items took even numbers (2,4,6,8,10,12,14,16,18,20). Its validity was established with the assistance of two experts in the Departments of Psychology, and Measurement and Evaluation, Nnamdi Azikiwe University, Awka respectively. The reliability of the instrument was obtained using test retest and Pearson product moment correlation with a coefficient of 0.72 which was considered high. Analysis of the data was done with Pearson product moment correlation using the Statistical Package for Social Sciences version 20.

Academic achievement of students was obtained from the average scores of students for the subjects taken in the preceding academic termly examination made available to the researcher from the respective class form teachers of the selected secondary schools. The frequency distribution of the participants is presented in the table below:

Table 1: Frequency Distribution of respondents in terms of gender

Gender	Frequency	Percentage
Male	33	43.4
Female	43	56.6
Total	76	100

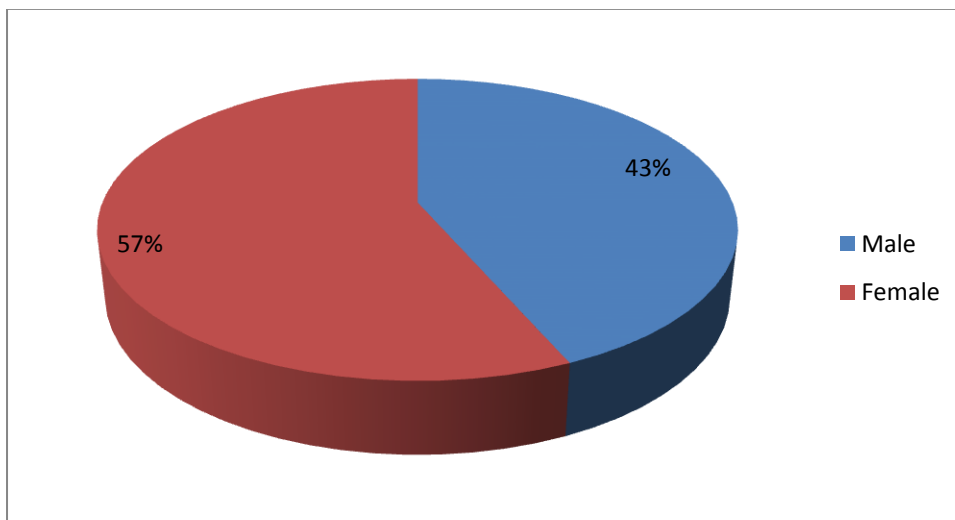


Figure 1: Pie chart of Distribution of respondents

**Results/Statistical Analysis****Table 1**

*Table showing the Relationship and Test for Relationship Between Gender and Students' Academic Concept (N= 76)*

**Table 6: Correlation Analysis**

		gender	mean
gender	Pearson Correlation	1	.054
	Sig. (2-tailed)		.645
	N	76	76
mean	Pearson Correlation	.054	1
	Sig. (2-tailed)	.645	
	N	76	76

Interpretation: The correlation between the variables is 0.054 (P-value > 0.05) which is less than 0.5. The correlation less than 0.5 is interpreted as weak relationship between variables and the P-value greater than 0.05 shows existence of enough evidence to accept the null hypothesis and conclude that there is no significant relationship between students' gender and their academic self-concept.

**Table 2**

*Table showing the Relationship and Test for Relationship Between Gender and Students' Academic Achievement (N= 76)*

**Correlations**

		gender	score
gender	Pearson Correlation	1	-.118
	Sig. (2-tailed)		.310
	N	76	76
score	Pearson Correlation	-.118	1
	Sig. (2-tailed)	.310	
	N	76	76

Interpretation: The correlation between the variables is -0.118 (P-value > 0.05) which is less than 0.5. The correlation less than 0.5 is interpreted as weak relationship between variables and the P-value greater than 0.05 shows existence of enough evidence to accept the null hypothesis and conclude that there is no significant relationship between students' gender and their academic achievement.

**Table 3**

*Table showing the Relationship and Test for Relationship Between Students' Academic Concept and their Academic Achievement (N= 76)*

**Correlations**

		score	mean
score	Pearson Correlation	1	.083
	Sig. (2-tailed)		.778
	N	76	76
mean	Pearson Correlation	.083	1
	Sig. (2-tailed)	.778	
	N	76	76

Interpretation: the correlation between the variables is 0.083 (P-value < 0.05) which is greater than 0.5. The correlation greater than 0.5 is interpreted as strong relationship between variables and the P-value greater than 0.05 shows existence of enough evidence not to accept the null hypothesis and conclude that there is a significant relationship between students' academic self-concept and their academic achievement.

**Discussion of Results**

**Relationship between Gender and Students' Academic Self-Concept**

The result of this study revealed that the relationship between gender and the students' academic self-concept is weak and positive but not statistically significant. This is interpreted to mean that there is no significant relationship between gender and students' academic self-concept. The position of this finding agrees with the results obtained by Sar Abadani Tafreshi (2006) who revealed that gender was a significant factor in academic self-concept of students. This finding also agrees with that of Hanan, Shabana and Mona (2016) which among other things states that there was a statistically negative

correlation between students' gender and their academic self-concept. It could be because of the assertion that there seems to be a significant decline in students' academic self-concept from early mid-adolescence as of result of the fact that children access their academic capabilities by age 10 or 11 by comparing themselves to their peers. Moreover, the finding of this study agrees with that of Bacon (2011) which recorded that gender does not influence self-concept in any way. This could also be attributed to the fact that both male and female students equally aspire for higher academic achievement and thus study hard to be successful, irrespective of their self-concept. Moreover, if they seem to lack internal motivation, teachers and counsellors assist them in building their self-concept which serves as an external motivation geared towards academic excellence.

However, the finding of this study disagrees with the findings of Liu and Wang (2005) which revealed that gender has a significant relationship with students' academic self-concept, with female students having significantly higher perceived academic effort (academic self-concept subscale) than their male counterparts. It further disagrees with the findings of Ireson et. al (2001) which found that there is a difference in the academic self-concept of males and females, that is, males and females possessing different beliefs about their academic competences.

### **Relationship between Gender and Students' Academic Achievement**

The result of this study also revealed that the relationship between gender and the students' academic achievement is weak, negative and not statistically significant. This implies that there was no significant relationship between gender and students' academic achievement.

The position of this finding further agrees with the results of the study by Hanan, Shabana and Mona (2016) which states that gender was not a significant factor when measuring academic achievements of students. Similarly, it agrees with the findings of Bacon (2011) that there was a significant statistical low correlation between gender and academic performance. It, however, disagrees with the findings of Zembar and Blume (2011) that revealed that on the average, girls did better in school than boys. The finding of this study could be explained that students who work hard and put in more efforts in their studies attain good grades irrespective of their gender.

### **Relationship between Students' Academic Self-Concept and their Academic Achievement**

The result of this study revealed that the relationship between gender and the students' academic self-concept is strong, positive and statistically significant. This result agrees with the findings of Zharah (2010), Ghazvini (2011), Hanan, Shabana and Mona (2016) and that of Izuchi and Onyekuru (2017) that found a degree of positive and significant relationship between academic performance and academic self-concept. It further agrees with the findings of Guay et. al (2003) that both academic self-concept and academic achievement directly influence each other. The positive and significant relationship between academic self-concept and academic achievement can be reasoned that students who have high and good academic concept strive towards obtaining good grades by developing good study habits and self-regulatory skills for high academic performance and achievement.

### **Conclusion**

It was concluded from the findings of the study that gender is not a significant factor that affects students' academic concept. The study revealed that students' academic self-concept has nothing to do with their gender. The findings of the study also revealed that gender does not determine academic achievement. This implies that students' academic achievement is likely to be affected by other factors such as parental support, school factors and so on. In other words, students will achieve higher in their academics if those other factors are put in place, other than their respective gender. The study further reveals a significant relationship between students' academic self-concept and academic achievement. This implies that improved academic self-concept could make students develop self-confidence; map out strategies that will motivate them towards proper academic behaviours for good academic achievement.

### **Recommendations**

Arising from the foregoing, it is recommended that parents, teachers, counsellors and other educators should work towards helping students to develop high and improved academic self-concept that will make them develop self-confidence in their academic activities; and also engage in good self-regulatory methods towards great academic achievement. This could be achieved by implementing psycho-educational programmes such as seminars and workshops to provide opportunities for students to express themselves and to develop their self-esteem and self-confidence which will in turn positively impact their academic self-concept.

## References

- Affum-Osei, E., Eric, A. A., Barnie, J., & Forkuoh, K. S. (2014). Academic motivation, academic self-concept and academic achievement among high school students. *European Journal of Research and Reflection in Educational Sciences, Vol. 2* (2), 24-37.
- Akanwa, U. N. (2016). The place of nurture, psychosocial adjustment in academic achievement of adolescent. *The Educational Psychologist, 10* (1), 11-17.
- Azizi, Y. (2009). Relationships between self-concepts and personality and students' academic performance in selected secondary schools. *European Journal of Social Sciences, Vol.11* (2).
- Bacon, S. C. (2011). Academic self-concept and academic achievement of African American students transitioning from urban to rural schools. Retrieved from <http://www.ir.uiowa.edu>
- Baran, M. (2011). A study of relationships between academic self-concepts, some selected variables and physics course. *International Journal of Education, 3* (1).
- Chia, L. W., Wang, K., & John, C. (2005). Academic self-concept: A cross-sectional study of grade and gender differences in a Singapore secondary school. *Asian Pacific Education Review, Vol. 6* (1), 20-27.
- Ghazvini, S. D. (2011). Relationships between academic self-concept and academic performance in high school students. *Procedia Social and Behavioural Sciences 15* (2011) 1034-1039.
- Guay, F., Marsh, H. W., & Boivin, M. (2003). Academic self-concept and achievement: Developmental perspective on their causal ordering. *Journal of Educational Psychology, 95*, 124-136
- Hanan, E. R., Shabana, K., & Mona, T. E. (2016). Relationship between academic self-concept and students' performance among school age children. *American Journal of Nursing Science, 5*, (6), 295-302.
- Ireson, J., & Hallam, S. (2001). Ability grouping in education. London: Chapman
- Izuchi, M. N., & Onyekuru, B. U. (2017). Relationships among academic self-concept, academic motivation and academic achievement among college students. *European Journal of Research and Reflection in Educational Sciences, vol. 5* (2)
- Kendra, C. (2018). What is self-concept and how does it form? Retrieved from <http://www.verywellmind.com>

- Matovu, M. (2012). Academic self-concept and academic achievement among university students. *International Online Journal of Educational Sciences*, 4 (1), 107-116.
- Matsumoto, D., & Juang, L. (2008). *Culture and psychology* (4<sup>th</sup> ed.). Belmont, CA: Wadsworth/Cengage Learning.
- Rubie-Davies, C. M. (2006). Teacher expectations and student self-perceptions: Exploring relationships. *Psychology in the Schools*, 43 (5), 537-552.
- Tan, J. B. Y., & Yates, S. M. (2007). A rasch analysis of the academic self-concept questionnaire. *International Educational Journal*, 8 (2), 470-484.
- Tang, S. (2011). The relationships between self-concept, academic achievement and the future pathway of first year business diploma students. *International Journal of Psychological Studies*, 3 (2) 123-130.
- Tiedemann, J. (2000). Parents gender stereotype and teachers beliefs as predictors of childrens' concept of their mathematical ability in elementary school. *Journal of Educational Psychology*, 92 (1), 144-151.
- Trautwein, U., Ludtke, O., Koller, O., & Baumert, J. (2006). Self-esteem, academic self-concept, and achievement: How learning environment moderates the dynamics of self-concept. *Journal of Personality and Social Psychology*, 90, 334-349.
- Sar Abadana Tafreshi, L. (2006). The relationship between academic achievement, self-esteem and gender with anxiety of computer among postgraduate students in university of Tabeiyat Moallem Tehran. University of Tabeiyat Moallem Tehran. Iran
- Yara, P. O. (2010). Students' self-concept and mathematics achievement in some secondary schools in southwestern Nigeria. *European Journal of Social Sciences*, 13 (1) 127-132.