

MEASURED INFLUENCE OF GENDER AND PSYCHOLOGICAL FACTORS ON THE ACADEMIC SELF-CONCEPT OF SENIOR SECONDARY SCHOOL STUDENTS IN IBADAN, OYO STATE, NIGERIA

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ABSTRACT

This study investigated the measured influence of gender and psychological factors on the academic self-concept of senior secondary school students in Ibadan, Oyo State, Nigeria. Using the descriptive survey research design, two research questions and related hypotheses were formulated and tested. Data were collected from three hundred SS2 secondary school students in Ibadan using four validated instruments. Analysis of data was done using the multiple regression analysis, and Pearson Product Moment Correlation (PPMC) statistical tools. The results revealed among others that the independent variables (gender, self-efficacy, achievement motivation and emotional intelligence) made a joint contribution on the academic self-concept of senior secondary school students in Ibadan Nigeria. It also revealed that achievement motivation correlated most significantly with the academic self-concept of senior secondary school students in Ibadan. Thus it is recommended that the family, school, teacher, society and significant others should take time to give appropriate support to students as they strive to attain their dreamed academic height that would be beneficial to them and society.

Keywords: *Academic Self-Concept, Gender, Self-Efficacy Achievement Motivation and Emotional Intelligence.*

INTRODUCTION

The evaluation of self affects an individual's feelings, actions, and aspirations throughout life. Students' experiences during childhood and adolescence play an important role in their development of either a negative or positive self-perception that could have a long lasting effect on their academic self-concept. Researchers Woolfolk (1995), Huitt (1998) are of the view that the academic self-concept of students are premised on the perception of their strengths and weaknesses. They contend that the way students feel about themselves could be the most important variable in learning. Similarly, Koutsoulis (1995) affirms that academic self-concept is a significant predictor of academic achievement. Hence, the attainment of positive academic self-concepts has been shown to affect academic behaviours, academic choices, educational aspirations, and subsequent academic achievement (Byrne, 1984). Thus, an understanding of students' academic self-concepts is becoming more and more of a vital concern in educational psychology because self-concept is found to possess a predictive, and in some cases, causal value over other educational outcomes. Gender is affirmed by some researchers to impact upon students academic self-concept as they reveal that there is a significant difference in the academic

self-concept of male and female students (SarAbadani-Tafreshi, 2006). Also, Zareh, (1994) posits that there is significant relationship between student's academic self-concept and gender. However, the differences in self-concept among adolescent males and females vary throughout literature. Three studies found no differences between males and females in their rating of global or general self-concept (Marsh, 1993; Osborne and LeGette, 1982). Others found large and consistent differences among adolescents (Markstrom-Adams and Adams, 1995). Statistically significant gender differences were found in a study of 901 Australian adolescents (Bryne and Shavelson, 1987) and replicated by other researchers: girls had higher English self-concept and boys had higher mathematics self-concept (Bryne and Shavelson, 1986a; Marsh, 1993; Meece, Parsons, Kaczala, Goff, and Futterman, 1982). Overall, males tend to have higher self-concept scores on dimensions such as math, emotions, physical abilities, physical appearance, and general self-concept. Females are more likely to score higher in areas such as verbal self-concept, honesty, parental relations, and same-sex peer relations (Widaman, MacMillan, Hemsley, Little, and Balow, 1992). However, within the secondary school context, Biggs and Moore (1993) note that 'poor' academic self-concept was related to surface approaches while 'good' academic self-concept was linked with deep approaches to learning.

This corroborates Bandura's (1997) assertion that efficacious approach to learning could influence students' desire to engage in and maintain interest in pursuing academic goals. Concurring, Qutami and Abu-Jaber (1997), state that the measure of students' academic self-efficacy could influence their level of academic performance. Thus, research has demonstrated that academic self-efficacy could be a valid predictor of performance outcomes, including academic achievement and behaviour (Olivier and Shapiro, 1993; Schunk, 1991). Hence, the impact of academic self-efficacy cannot be underestimated as it is an indicator of an individuals' confidence in their ability to perform the behaviour required to produce specific academic outcomes and is thought to directly impact the choice to engage in a task, as well as the effort that will be expended and the persistence that will be exhibited (Kinzie, Delcourt and Powers, 1994).

Similarly, studies on the relationship between academic self-concept and students' achievement motivation in educational settings have been a major focus of research for many years (Hamachek, 1995). Most of these researches support the belief that there is a persistent and significant relationship between students academic self-concept and their achievement motivation drive and that a change in one seems to be associated with a change in the other. In a major longitudinal study Brookover, Erikson and Joiner as cited in Hamachek (1995), reveal that students' academic self-concept and their level of achievement motivation was a significant factor in their achievement at school. Also, Gordon (1997) in a study of the relationships among academic self-concept, academic achievement motivation and persistence with self-attribution, study habits, and perceived school environment reports that students' academic self-concept, their academic achievement motivation, and persistence are related significantly to their level of academic achievement in school. Gordon further posits that it has long been a theme in education that a student needs a good academic self-concept in order to be successful academically. Also, Parker, Summerfeldt,

Hogan and Majeski (2004) contend that emotional and social competencies were strong predictors of student's academic self-concept and success in school. Similarly, Parker, et al...(2004) affirm that emotional intelligence is a significant predictor of academic self-concept. In the same vein, Low and Nelson (2004) report that emotional intelligence skills are key factors in the development of positive academic self-concept among high school and college students respectively. Likewise, Abisamra (2000) contends that there is a positive relationship between emotional intelligence and student's academic self-concept. Abisamra therefore canvassed for inclusion of emotional intelligence in schools' curricula. However, in the context of what has been discussed so far, it could be said that students' with poor academic self-concept could more often than not express negative attitude and feelings towards schooling and academic task. They could display pessimistic attitude in the face of challenges. Therefore, the effect of low academic self-concept on the academic achievement of students is best imagined than experienced. On this contextual premise therefore, this study examined the measured effect of gender, academic self-efficacy, achievement motivation and emotional intelligence on the academic self-concept of senior secondary school students in Ibadan, Oyo State, Nigeria.

The theoretical underpinning of this study is anchored on the social cognitive theory. It is hypothesized that self-efficacy refers to an individual's belief to be successful at a given task or within a given construct (Bandura, 1997). Bandura argues that a student's belief in his or her ability to accomplish various tasks is highly influential on whether they will actually accomplish this task or succeed in an individual area. Self-efficacy beliefs have shown convergent validity in influencing such key indices of academic self-concept, persistence, and emotional reactions. There is evidence (Bandura, 1997) that self-efficacious students participate more readily, work harder, persist longer, and have fewer adverse emotional reactions when they encounter difficulties than do those who doubt their capabilities.

In terms of choice of activities, self-efficacious students undertake difficult and challenging tasks more readily than do inefficacious students. However, people with high personal self-efficacy look at obstacles as challenges to be overcome and look at failures as opportunities to learn valuable lessons (Bandura, 1997). Based on the above premise, the following research question and related hypotheses are formulated.

1. Are there significant relationships among the independent and dependent variables?
2. To what extent could all the independent variables (gender, academic self-efficacy, achievement motivation and emotional intelligence) predict the dependent variable (academic self-concept) of senior secondary school students in Ibadan, Nigeria?

Ho₁: There is no significant relationship between gender and the academic self-concept of senior secondary school students.

Ho₂: There is no significant relationship between academic self-efficacy and the academic self-concept of senior secondary school students.

Ho₃: There is no significant relationship between achievement motivation and the academic self-concept of senior secondary school students.

Ho₄: There is no significant relationship between emotional intelligence and the academic self-concept of senior secondary school students.

METHODOLOGY

This study adopted a descriptive survey research method in which the researcher did not manipulate any of the variables. The population of the study comprises all senior secondary school students between the age range of 14-18 years in Ibadan North Local Government Area. From this, a total of 300 participants were selected for the study. This number comprises thirty students male and female randomly selected from ten schools which were purposively selected from the study's population in Ibadan North Local Government Area. Ellen, Dale and David (2000) developed a 60 item scale. Twelve items were modified and adopted for the study to measure academic self-concept. These items were pilot tested to get the reliability coefficient of the instrument. The revalidated scale had a reliability coefficient using Guttman split half $r = 0.67$.

However, the Cronbach coefficient alpha is 0.70 for the total scale, and the domain scale alpha coefficients range from 0.60 to 0.93. Students' academic achievement and motivation was measured using the Students' Academic Achievement Motivation by (Aremu and Hammed, 2002). It is the 2nd inventory in Ibadan Multi-dynamic inventories of Achievement Motivation. It consists of 20 items, developed on 4 point Likert scale and revalidated through a pilot study by the researcher, with the Cronbach (α) = 0.74 and the reliability coefficient using Guttman split half $r = 0.86$. Academic Self-Efficacy was measured using an adopted and modified version of the Morgan-Jinks student academic self-efficacy scale developed by Morgan and Jinks (1999). The adopted and modified instrument contains 30 items validated through a pilot study. The reliability was established by using test-retest methods 0.72. The internal consistency reliability measured using Cronbach's alpha was 0.79. The original instrument is a thirty-item scale and had an overall reliability coefficient of 0.82. The instrument has a response format ranging from 'really agree (1) to really disagree (4).

Swinburne University Emotional Intelligence Test (Adolescent SUEIT). SUEIT adolescent self-report version was developed by Ben and Stefan (2003). The instrument consists of 57 items and has been designed to assess how effectively adolescents deal with emotions. Higher scores indicate high emotional intelligence. There is no right or wrong answers. The inventory begins with questions about the name, age, gender, culture, ethnical background and educational level of the respondent. The inventory has four dimensions:

1. Emotional recognition and expression
2. Understanding emotions external
3. Emotional direct cognition
4. Emotional management and control

The fifty-seven items are distributed among the four dimensions as follows:

Subscale (1) has eleven items, score range 11-55

Subscale (2) has nineteen items, score range 19-95.

Subscale (3) has eleven items, score range 1-55.

Subscale (4) has sixteen items, score range 16-80.

The adolescent SUEIT has demonstrated good internal consistency with a

Cronbach alpha Coefficient reported emotional recognition and expression of 0.58, understanding emotions internal 0.78, emotions direct cognition 0.78, emotional management and control 0.62. The researcher adopted, modified and revalidated the instrument through a pilot study. The researcher used the modified version of the scale having 16 items with 4 point likert response format ranging from (1) for Strongly Disagree to (4) Strongly Agree. The instrument yielded a two weeks test-retest reliability coefficient of 0.68 for subscale (1) 0.74, for subscale (2), 0.82 for subscale (3) and 0.87 for subscale (4).

The researcher personally distributed and collected the completed questionnaire from the students. Permission was obtained from significant authorities to facilitate the process. The school principals, counsellors and form teachers cooperation were solicited for to aid the process. Participants were adequately informed of the adherence to confidentiality and the need to be precise and truthful in filling the questionnaire. Three hundred questionnaires were administered and successfully collected back by the researcher. The data were analyzed with Pearson Product Moment Correlation (PPMC) and multiple regression analysis statistical tools. Multiple regression was used to find out the combined and relative contributions of the four independent variables (gender, academic self-efficacy, achievement motivation and emotional intelligence) on the dependent variable (academic self-concept) of secondary school students. PPMC was used to determine if the level of relationship between the variables was statistically significant to warrant rejection or acceptance of the hypothesis.

RESULTS AND DISCUSSION

Table 1: Measured influence of gender and psychological factors on the academic self-concept of senior secondary school students: Descriptive Statistics and Correlation Matrix of Relationship between variables.

Variables	N	Mean	Std.Dev	1	2	3	4	5
Academic Self-concept	300	43.37	7.119	1.000				
Gender	300	31.75	5.315	.523	1.000			
Self-Efficacy	300	32.54	5.594	.571	.511	1.000		
Achievement Motivation	300	41.76	6.864	.742	.614	.531	1.000	
Emotional Intelligence	300	27.75	4.612	.421	.322	.241	.228	1.000

Table 1 gives description of measures of association between the variables identified in this study. The scores indicate significant relationship between the independent variables (gender, self-efficacy, achievement motivation and emotional intelligence) with the dependent variable (academic self-concept). One striking outcome of the intercorrelation result is that achievement motivation correlated most positively with the dependent variable (academic self-concept) $r = .742$, $p < 0.05$.

Table 2: Regression summary table showing joint influence of the independent variables on the academic self-concept of senior secondary school students.

R = .742
R² = .718
Adj R² = .681
Std Error = 1.845

Source	Df	SS	MS	F-Ratio	Sig
Regression	4	6143.184	1228.617	242.319	.000
Residual	295	628.741	3.160		
Total	299	6141.815			

Source: Survey 2011: *Df* = Degree of Freedom; *SS* = Sum of Squares; *MS* = Mean Square

The result on table 2 revealed that the four independent variables made a joint contribution of 68% to the prediction of academic self-concept of senior secondary school students. The composite effect of the independent variables has jointly contributed to the academic self-concept of senior secondary school students. The result of the multiple regression analysis produced an F-Ratio which was significant at $p < 0.05$. alpha level.

Table 3: PPMC summary table showing significant relationship between gender and the academic self-concept of senior secondary school students.

Variables	N	Mean	SD	R	Df	P
Academic Self-Concept	300	43.37	7.119	.523	298	Sig
Gender	300	31.75	5.315			

Table 3 shows that gender positively and significantly correlates with the academic self-concept of senior secondary school students. With this result, the null hypothesis that there is no significant relationship between gender and the academic self-concept of senior secondary school students is therefore rejected.

Table 4: PPMC summary table showing significant relationship between academic self-efficacy and the academic self-concept of senior secondary school students.

Variables	N	Mean	SD	R	Df	P
Academic Self-Concept	300	43.37	7.119	.571	298	Sig
Academic Self-Efficacy	300	32.54	5.594			

Table 4 shows that academic self-efficacy correlates significantly with the academic self-concept of senior secondary school students. With this result the null hypothesis that there is no significant relationship between academic self-efficacy and the academic self-concept of senior secondary school students is rejected.

Table 5: PPMC summary table showing significant relationship between achievement motivation and the academic self-concept of senior secondary school students.

Variables	N	Mean	SD	R	Df	P
Academic Self-Concept	300	43.37	7.119	.742	298	Sig
Achievement motivation	300	41.76	6.864			

Table 5 shows that achievement motivation correlates most significantly with the academic self-concept of senior secondary school students. With this result the null hypothesis that there is no significant relationship between achievement motivation and the academic self-concept of senior secondary school students is therefore rejected.

Table 6: PPMC summary table showing significant relationship between emotional intelligence and the academic self-concept of senior secondary school students.

Variables	N	Mean	SD	R	Df	P
Academic Self-Concept	300	43.37	7.119	.421	298	Sig
Emotional Intelligence	300	27.75	4.612			

Table 6 shows that achievement motivation correlates most significantly with the academic self-concept of senior secondary school students. This position rejects the null hypothesis that there is no significant relationship between emotional intelligence and the academic self-concept of senior secondary school students. Considering research question one, are there significant relationships among the independent and dependent variables? The study indicates that gender, academic self-efficacy, achievement motivation and emotional intelligence relates positively and have significant predictive influence on the academic self-concept of senior secondary school students. The reason for this could be aligned to the fact that the evaluation of self affects an individual's feelings, actions, and aspirations throughout life. Students' experiences during childhood and adolescence play an important role in their development of either a negative or positive self-perception that could have a long lasting effect on their academic self-concept. Thus, the attainment of positive academic self-concepts has been shown to affect academic behaviours, academic choices, educational aspirations, and subsequent academic achievement (Byrne, 1984).

Bothering on research question two; to what extent could all the independent variables (gender, academic self-efficacy, achievement motivation and emotional intelligence) predict the dependent variable (academic self-concept) of senior secondary school students in Ibadan, Nigeria? The finding of the study reveals that the four independent variables made a joint contributive effect of 68% to the prediction of the academic self-concept of senior secondary school students in Ibadan. This is likely due to the fact that the kind of perception students' have about themselves impact greatly on their academic success. In support of this assertion, Woolfolk (1995); Huitt (1998) posits that the academic self-concept of students is premised on the perception of their strengths and weaknesses. Also, Koutsoulis (1995) affirms that academic self-concept is a significant predictor of academic achievement.

Appraising the hypothesis: there is no significant relationship between gender and the academic self-concept of senior secondary school students, the study shows that gender positively correlates with the academic self-concept of senior secondary school students. Therefore the hypothesis is rejected. The correlation attests to the fact that the issue of gender is germane to the academic self-concept of students. This is in congruence with the views of SarAbadani-Tafreshi (2006) that there is a significant difference in the academic self-concept of male and female students. Also, the result is in line with the findings of Zareh (1994), that there is significant relationship between student's academic self-concept and gender. However, the differences in self-concept among adolescent males and females vary throughout literature.

Similarly, on the hypothesis there is no significant relationship between academic self-efficacy and the academic self-concept of senior secondary school students, the study shows that academic self-efficacy correlates significantly with the academic self-concept of senior secondary school students. Therefore the hypothesis is rejected. This implies that the ability of students to develop positive academic self-efficacy suggest the fact that they will not only be self-efficacious, but they would also be able to develop an ideal academic self-concept that could motivate them to succeed academically. This assertion concurs

with the views of Qutami and Abu-Jaber (1997), that the measure of students' academic self-efficacy could influence their level of academic performance.

There is no significant relationship between achievement motivation and the academic self-concept of senior secondary school students was another hypothesis that was disfavoured. The study shows that achievement motivation positively correlates with the academic self-concept of senior secondary school students. Therefore the hypothesis is rejected. The reason for this could be premised on the fact that the level of students' achievement motivation is fundamental to their success in school academic task. Thus, Most of these researches support the belief that there is a persistent and significant relationship between students academic self-concept and their achievement motivation drive and that a change in one seems to be associated with a change in the other. In a major longitudinal study Brookover, Erikson and Joiner as cited in Hamachek (1995), found that students' academic self-concept and their level of achievement motivation was a significant factor in their achievement at school.

Based on the hypothesis that there is no significant relationship between emotional intelligence and the academic self-concept of senior secondary school students, the study shows that emotional intelligence correlates significantly with the academic self-concept of senior secondary school students. Therefore the hypothesis is rejected. This result projects the fact that emotional intelligence is a significant predictor of academic self-concept. This is further projected by the assertions of Low and Nelson (2004) that emotional intelligence skills are key factors in the development of positive academic self-concept among high school and college students respectively. Likewise, Abisamra (2000) contends that there is a positive relationship between emotional intelligence and student's academic self-concept.

An understanding of students' academic self-concepts is becoming more and more of a vital concern in educational psychology because self-concept is found to possess a predictive, and in some cases, causal value over other educational outcomes. Hence, the attainment of positive academic self-concepts has been shown to affect academic behaviours, academic choices, educational aspirations, and subsequent academic achievement. Based on this context therefore, the impact of academic self-concept on the ability of students to succeed in school cannot be underestimated.

The findings of this research therefore provides reasonable information that could help engineer positive academic support to students experiencing diverse academic challenges in school that could negatively mar their academic self-concept. In view of this therefore, parents, teachers, counsellors, psychologist and significant others should endeavour to understand the academic challenges of individual students as to know how best to assist them attain positive academic self-concept.

CONCLUDING REMARK

The findings of this study have projected the fact that positive academic self-concept is germane to individual's student's success in school. Thus, it is imperative that parents, counsellors, psychologists, school administrators and significant others give to students' the necessary support they need to overcome their challenges in school and attain academic

success. The family, society, teachers and significant others should take time to appreciate and understand the developmental task of adolescents so as to devise appropriate measure on how best to understand, relate, maintain and sustain pleasant social relationship with them as to facilitate permissible environment where they can express themselves freely.

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