

## **RELATIONSHIPS AMONG ACADEMIC SELF-CONCEPT, ACADEMIC MOTIVATION AND ACADEMIC ACHIEVEMENT AMONG COLLEGE STUDENTS**

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### **ABSTRACT**

Academic self-concept is 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, just as academic motivation is a construct recognized for its influence on students' interest in and attitude to learning compelling students to work hard or put effort to reach a mastery level in their quest for academic excellence. These constructs exert some influence on the academic achievement of the students. This study therefore investigated the relationships among academic self-concept, academic motivation and academic achievement in college students. Three research questions were answered and three hypotheses tested at 0.01 level of significance. A sample of 528 undergraduate volunteers participated in the study. The instruments for data collection were College Students' Academic Self-concept Questionnaire (CSACQ) and College Students' Academic Self-concept Questionnaire (CSACQ) validated with the assistance of senior lecturers in the relevant field. The correlation indices of former and later instruments obtained by test-retest method using Pearson product moment correlation technique were 0.81 and 0.74 respectively. The data obtained from the instruments were subjected to SPSS analysis using Pearson product moment correlation technique. It was found that academic self-concept, academic motivation and academic achievement correlated significantly with one another. Consequently, it was recommended that teachers, parents and guardians should provide academic motivation to the students to boost their academic self-concept and academic achievement.

**Keywords:** Academic self-concept, academic motivation, intrinsic motivation, extrinsic motivation, amotivation, academic achievement.

### **INTRODUCTION**

Success in academic endeavour is usually measured by aggregate grades obtained by students at various levels. It is the responsibilities of institutions and individuals involved in learning to understudy the variables that are capable of impacting positively on students' academic success in order to enhance it. The grades obtained by students are often influenced by factors ranging from students' socio-economic background, educational background, quality of schools attended, interest and attitude of the students to work, to qualities of successive teachers encountered. Beside these, academic self-concept and academic motivation are touted as strong factors influencing academic success. Students who are desirous of good level of academic achievement are expected to have high level of positive academic self-concept and academic motivation.

Self-concept was defined by Wylie (1979) as a person's perception of himself which is formed through his experiences with his environment. Slaven (2003) defined it as a perception of oneself about one's strength, weaknesses, state of mind and values by social and environmental interactions. While Duffy and Atwater (2000) defined it as how an individual sees himself in terms of ability, interest, aptitude and other personality characteristics, Woolfolk, Hughes and Wakap (2008) saw it as individuals' knowledge and beliefs about themselves, their feelings, attitudes and expectations.

According to Purkey and Novak (1996), human behaviours can be substantially explained by our sense of identity, the judgment others make of us and perceptions of social relationships with other people. Besides, parental upbringing, continuous success or failure, depression and internal self-critic also influence the development of one's self-concept (Aziz and Jamaludin, 2009). Hence, various specific conceptions of self-concept are based on many events of life such as sport, academic performance, assessment of one's body, friendship, artistic ability, contribution to community groups, etc. Self-concept can be situation-specific as one may have high self-concept in one subject area and low self-concept in another subject area.

Initially, self-concept was looked upon as a general one-dimensional construct with a single instrument for its measure (Marsh 1990). However, a better understanding of self-concept has led to stratification of the construct. Marsh and Craven (1997) classified self-concept as academic self-concept and non-academic self-concept. Academic self-concept itself was classified as mathematical or verbal with separate instruments designed for their measurement. Research by Marsh and Craven (1997) has been very important in demonstrating and stressing the existence of these separate dimensions of self-concept as well as its increasing differentiation and complexity with age.

Non-academic self-concept was defined as the perception of oneself in non-academic activities including physical self and relationships with parents, friends and community (Tang, 2011). It is concerned with physical appearance, social relations, interest and attitude in non-academic matters, that is, matters not related to teaching and learning or school.

Academic self-concept on the other hand was defined by Tang (2011) as the conception of oneself in academic activities in relation to specific subjects, teachers and schools. It is concerned with one's perception, ideas and beliefs of oneself with regard to teaching and learning. Academic self-concept was further defined by Lent, Brown and Gore (1997) as specific attitudes, feelings and perceptions about one's intellectual or academic capabilities, representing one's self-beliefs and self-feeling in academic setting. It is the students' view of his or her academic ability or academic characteristics in comparison with other students. Academic self-concept develops from consistent academic successes or failures over a period of time especially at formative stage of children's development. A positive and high level of academic self-concept develops from a correspondingly consistent high level of academic performance and vice versa. Therefore, efforts of parents and teachers should be geared towards providing qualitative education to children especially at the formative stage. A perfect start for children will serve as a pedestal on which other academic successes will be built as it will guarantee good grades which will lead to development of high positive academic self-concept and ultimately consistent good academic achievement. Researchers warn that a wrong start for children at formative academic stage leading to repeated poor academic achievement can result in erosion of self-confidence and a drop in academic self-concept which requires drastic measures to remedy (Marsh and Craven; 1997). Irredeemable

drop in academic self-concept does not only result in hopeless academic failures but general low life expectations and serious life incapacitation (Cokley, 2000).

Marsh, Byrne and Shavelson (1988) found that data from the general self-concept scales from three different instruments did not significantly correlate with school grades in English Language, mathematics and other subjects investigated whereas data from academic self-concept scales significantly correlated with academic achievement. A study by Yara (2010) on students' self-concept and mathematics achievement in some secondary schools in southwestern Nigeria revealed that students with good self-concept performed well in mathematics. Cokley (2000) found that the grade point average was the best predictor of academic self-concept for students attending predominantly white colleges and universities. Tang (2011) working on the relationships among self-concept, academic achievement and future pathway of first year business studies diploma students in Malaysia with 143 student sample found that students' academic self-concepts particularly mathematics self-concept, English self-concept and school self-concept correlated significantly with their academic achievements, but there was no significant relationship between self-concept (academic and non-academic) and students' choices of pathway after completing the diploma programme.

Motivation was defined as an inner force or desire to achieve a certain goal (Nwankwo, 2005). Landine and Stewart (1998) defined it as the inner force which energizes behaviour. Accordingly, motivation defines the reason behind people's behaviour and determines why they behave in a particular way. Motivated behaviours are energetic, oriented and permanent (Landine and Stewart, 1998). Motivation can be classified as extrinsic or intrinsic (Nwankwo, 2005). Extrinsic motivation arouses an individual to do something for the benefits associated with it. Intrinsic motivation on the other hand, propels a student to seek for knowledge for its own sake rather than for benefits accruable to it. Some theories have been propounded to explain motivation as it applies to people under academic and non-academic settings. Prominent among these is self-determination theory (SDT) which is an empirically based macro-theory of human motivation first proposed by Deci and Ryan (1985). The theory focused on the types or quality of motivation an individual possesses rather than on the total amount of motivation possessed by an individual. In self-determination theory, motivation can be conceptualized as a continuum comprising three major types of motivation including intrinsic motivation, extrinsic motivation and amotivation. Intrinsic motivation represents the most self-determined type of motivation in which behaviours are performed for the sake of enjoyment and it lies at the beginning of the continuum. Extrinsic motivation refers to a situation when behaviours are done to achieve a goal or reward beyond the activity itself and it lies along the centre of the continuum. Conversely, amotivation refers to the absence of motivation and it lies at the opposite end of the self-determination continuum.

Intrinsically motivated behaviours are engaged in for pleasure and satisfaction derived from their performance. Intrinsically motivated individuals tend to have an internal locus of control. These individuals are enthusiastic passionate about learning new things, are driven to accomplish and seek intellectual stimulation. According to Maurer, Allen, Gatch, Shankar and Sturges (2012), there are three sub-factors within intrinsic motivation: intrinsic motivation to know, intrinsic motivation to accomplish, and intrinsic motivation to experience stimulation. Intrinsic motivation to know arises when an individual engages in behaviour for the satisfaction experienced while learning or trying to understand something new. Intrinsic motivation to accomplish arises when an individual engages in behaviour for the pleasure experienced while trying to accomplish a task or create something. Intrinsic

motivation to experience stimulation is when an individual engages in behaviour in order to experience stimulating or exciting sensations.

Extrinsically motivated behaviours, on the other hand, are instrumental in nature. They are performed not because they are believed to be instrumental to some separable consequences but because there are direct tangible consequences of the action. The three sub-factors of extrinsic motivation are identified, introjected and external regulations (Maurer, Allen, Gatch, Shankar and Sturges; 2012). The most self-determined type of extrinsic motivation is identified regulation. In this case, an individual truly values behaviour even though they are not engaging in it because they like it. Introjected regulation is when one engages in behaviour to maintain personal expectations or to avoid guilt. External regulation being the least self-determined type of extrinsic motivation is when an individual engages in an activity solely as a means to obtain external reward or to avoid punishment. It is a means to an end.

When applied to the realm of education, self-determination theory (SDT) is primarily concerned with instilling in students a confidence in their own capacities and attributes, a valuing of education and an interest in learning. Pintrich and DeGroot (1990) linked intrinsic motivation and autonomous forms of extrinsic motivation to positive academic performance. Student motivation has been found to be a predictor of course attendance, course grades and persistence in program of study (Moore, Armstrong and Pearson, 2008).

Academic motivation is the type of motivation involved in learning under the school setting. It arouses and sustains interest of students in their academic activities goading them to put in maximum efforts necessary to achieve desired academic goals. By motivation for academic achievement, people are stimulated to successfully complete an assignment, achieving a goal or a degree of qualification in their profession (Moore, Armstrong and Pearson, 2008).

Academic motivation is a three-dimensional phenomenon consisting of individual's beliefs in ability to carry out a specific task, reasons and goals for individuals in carrying out the task and the emotional responses concerning carrying out the task (Amrai, Motlagh, Zalani and Parhon, 2011). Academic motivation provides incentives to undertake academic tasks. It arouses interest in learning and sustains it. A highly motivated student spares no effort in a quest for knowledge and academic glory. He does not shy away from difficult academic tasks and assignments, rather he tackles them head-on. He develops effective learning skills in the process and subsequently high metacognitive strategies.

Motivation for academic achievement is attributed to behaviours which lead to learning achievement (Moore, Armstrong and Pearson, 2008). The bulk of behaviours indicating the academic motivation involves insisting on doing difficult assignments, hard work or putting effort into learning to reach mastery level and choosing assignments which need great effort (Askari, 2006). The effective factors in academic motivation which can influence academic achievement include personality, family, school or social variable (Moore, Armstrong and Pearson, 2008). Subcomponents of academic motivation which can influence academic achievement as enumerated by Amrai, Motlagh, Zalani and Parhon (2011) include interest in task, effort required, competition, social power, affiliation, social concern, praise, token and previous academic achievements.

A good number of empirical studies have been conducted on the relationship between motivation and academic achievement including that which showed significant relationship

between academic motivations for acquiring self-esteem, encouragement, ability, competitiveness and social affiliation, achieving future goals, interest in learning and satisfying others with students' academic achievement (Askari, 2006). Data from Sweden indicated a significant decrease in motivation with the number of semesters among nursing students, and males showed lower motivation than the females (Mclaughlin, Moutray and Moore; 2010). Nursing students who had higher scores on extrinsic goal orientation perceived learning as a means to an end (Pintrich, Smith, Garcia and Mckeachie; 1991). Amrai, Motlagh, Zalani and Parhon (2011) conducted a study on the relationship between academic motivation and students' academic achievement using a sample of 252 University of Tehran students. The instrument for data collection was Inventory for School Motivation which was a 43-item questionnaire of 5-point likert scale format. Its liability coefficient obtained through Cronbach Alpha method was 0.93. The result of the study showed a positive and significant relationship between academic motivation and academic achievement. Maurer, Allen, Gatch, Shankar and Sturges (2012) conducted a study on the students' academic motivation in allied health classes. A sample of 461 human anatomy and physiology students was involved in the study. The instrument for data collection was adapted version of Academic Motivation Scale which was a 42-item questionnaire developed and validated by Vallerand, Blais, Briere and Pelletier (1989). The result of the study showed that students' level of intrinsic motivation and amotivation, but not extrinsic motivation were significantly related to their academic grades and academic behaviour, and their perceptions of the courses.

Motivational factors have crucial roles in academic achievement and since academic achievement of students is related to social development, it is essential that attention should be paid to the components of academic motivation by administrators and education planners so as to promote social development.

### **Purpose of the study**

Stakeholders in education industry take time to ponder on a combination of factors that can increase the quality of their outputs vis a vis the effectiveness of the various factor- inputs engaged in teaching and learning. Understanding these factors that relate on or can influence students' academic achievement places a school administrator at a vintage position for quality outputs. This study was therefore undertaken to investigate the relationships among academic self-concept, academic motivation and academic achievement. The findings thereof are of immense importance to education planners since they highlight a combination of factors that can ensure qualitative education in the school. To give direction to this study, three research questions were formulated and answered and three null hypotheses tested at 0.05 alpha level.

### **Research questions**

1. What is the relationship between students' academic self-concept and academic achievement?
2. What is the relationship between students' academic motivation and academic achievement?
3. What is the relationship between students' academic self-concept and academic motivation?

### **Hypotheses**

1. There is no significant relationship between students' academic self-concept and academic achievement.
2. Significant relationship between students' academic motivation and academic achievement does not exist.
3. There is no significant relationship between students' academic self-concept and academic motivation

## Method

The population of the study was 752 undergraduate students registered in the Department of Curriculum Studies and Educational Technology, University of Port Harcourt, Nigeria for 2009/2010 (268 students), 2010/2011 (230 students) and 2011/2012 (254 students) academic sessions. Out of the 752 registered students, 536 volunteered to participate in the study while 528 successfully participated in the study. The information about the students' population was obtained from the office of the Head of Department of Curriculum Studies and Educational Technology, University of Port Harcourt, Nigeria in June, 2013. In the period of study which was from June to August 2013, the students were in year 4, year 3 and year 2 respectively.

Academic self-concept of the students was measured using College Students' Academic Self-concept Questionnaire (CSACQ). It was a 20-item questionnaire of 4-point likert format. It was adopted from Self-Description Questionnaire 11 of Marsh (1992) and modified by the researcher. It was validated with the assistance of senior lecturers from Department of Psychology, Guidance and Counselling, University of Port Harcourt. It had a reliability index of 0.81 which was obtained using test-retest method and Pearson product moment correlation technique. Academic motivation of the students was obtained using College Students' Academic Motivation Inventory (CSAMI). It was a 20-item questionnaire of 4-point likert format adopted from Vallerand, Pelletier, Blais, Briere, Senecal and Vallieres (1992) and modified by the researcher. Its validity was established with the assistance of senior lecturers in the Department of Psychology, Guidance and Counselling, University of Port Harcourt. The reliability index of the instrument obtained using test-retest and Pearson product moment correlation methods was 0.74. Academic achievement of the students was obtained from the average scores of students for the courses taken in the preceding first semester examination made available to the researcher from the office of Head of Department, Curriculum Studies and Educational Technology, University of Port Harcourt. Data generated from these instruments were analyzed using SPSS and the results shown in the tables below.

## Results

**RQ1:** What is the relationship between students' academic self-concept and academic achievement?

**H01:** There is no significant relationship between students' academic self-concept and academic achievement

**Table 1: Correlation of academic self-concept and academic achievement**

		Academic self-concept	Academic achievement
Academic self-concept	Pearson Correlation	1	.773**
	Sig. (2-tailed)		.000
	N	528	528
Academic achievement	Pearson Correlation	.773**	1
	Sig. (2-tailed)	.000	
	N	528	528

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 1 shows that for 528 students that participated in the study, the value of the coefficient of correlation (r) obtained from Pearson product moment correlation technique is 0.773. This implied that there was a positive relationship between students' academic self-concept and academic achievement. This r-value is significant even at alpha level of 0.01, implying that there was a significant relationship between students' academic self-concept and academic achievement.

**RQ2:** What is the relationship between students' academic motivation and academic achievement?

**HO2:** Significant relationship between students' academic motivation and academic achievement does not exist.

**Table 2: Correlation of academic motivation and academic achievement**

		Academic motivation	Academic achievement
Academic motivation	Pearson Correlation	1	.535**
	Sig. (2-tailed)		.000
	N	528	528
Academic achievement	Pearson Correlation	.535**	1
	Sig. (2-tailed)	.000	
	N	528	528

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 2 shows that the calculated r-value is 0.535 which is an indication that there was a positive relationship between students' academic motivation and academic achievement. The r-value was significant at 0.01 alpha level implying that there was a significant relationship between students' academic motivation and academic achievement.

**RQ3:** What is the relationship between students' academic self-concept and academic motivation?

**HO3:** There is no significant relationship between students' academic self-concept and academic motivation

**Table 3: Correlation of academic self-concept and academic motivation**

		Academic self-concept	Academic motivation
Academic self-concept	Pearson Correlation	1	.630**
	Sig. (2-tailed)		.000
	N	528	528
Academic motivation	Pearson Correlation	.630**	1
	Sig. (2-tailed)	.000	
	N	528	528

**Table 3: Correlation of academic self-concept and academic motivation**

		Academic self-concept	Academic motivation
Academic self-concept	Pearson Correlation	1	.630**
	Sig. (2-tailed)		.000
	N	528	528
Academic motivation	Pearson Correlation	.630**	1
	Sig. (2-tailed)	.000	
	N	528	528

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows that the r-value is 0.63. The r-value indicates that there was a positive relationship between students' academic self-concept and academic motivation. The value is also significant at 0.01 alpha level, implying that there was a significant relationship between students' academic self-concept and academic motivation

## DISCUSSION OF THE FINDINGS

In this study, it was found that there was a positive and significant relationship between students' academic self-concept and academic achievement. This finding is in agreement with the findings of Yara (2010), Tang (2011) and Marsh, Byrne and Shavelson (1988) who found that academic self-concept positively and significantly correlated with academic achievement. The positive and significant relationship between academic self-concept and academic achievement can be explained from the fact that students who have high level of positive academic self-concept develop self-confidence in their academic endeavours. They develop strategies for overcoming difficult academic challenges and consequently, they obtain good grades as a reward.

It was found that there was a positive and significant relationship between students' academic motivation and academic achievement. This finding is similar to the result of the study conducted by Amrai, Motlagh, Zalani and Parhon (2011) which showed a positive and significant relationship between academic motivation and academic achievement. It is also similar to the result of the study conducted by Maurer, Allen, Gatch, Shankar and Sturges (2012) which revealed that students' level of intrinsic motivation and amotivation, but not extrinsic motivation were significantly related to their academic grades and academic behaviour, and their perceptions of the courses. The possible explanation of a positive and significant relationship between academic motivation and academic achievement is that academic motivation provides incentives for students to undertake academic tasks. It arouses students' interest in learning and makes students spare no effort in a quest for knowledge and academic glory. It helps students to develop effective learning strategies which can guarantee good academic performance.

It was also found that there was a positive and significant relationship between students' academic self-concept and academic motivation. The positive and significant relationship between students' academic self-concept and academic motivation could be as a result of the fact that academic motivation brings about good academic achievement which inculcates in



students self-confidence that culminates in consistently good academic achievement. Students who consistently obtain good academic performance develop high level of self-confidence which can result to a build-up in motivation necessary for future good academic performance.

## CONCLUSION

In this study, the relationships among academic self-concept, academic motivation and academic achievement among college students were investigated. The findings revealed that there was a positive and significant relationship between students' academic self-concept and academic achievement; there was a positive and significant relationship between students' academic motivation and academic achievement and that there was a positive and significant relationship between students' academic self-concept and academic motivation.

## RECOMMENDATION

The results of this study necessitate the following recommendations; Academic motivation is a multi-dimensional ingredient needed by students for good academic performance. It arouses students' interest in learning. It makes students work hard to achieve their goals. The ultimate effect of these is that it helps in development of high academic self-concept in students which is a sinequanon for good academic achievement. Therefore, teachers, parents and guardians should make efforts to provide academic motivation to the students in the university and by extension other schools so as to give the students the opportunity to develop high academic self-concept in order to achieve good academic result.

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