INFLUENCE OF STUDENTS SELF-CONCEPT ON THEIR ACADEMIC PERFORMANCE IN THE ELMINA TOWNSHIP

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ABSTRACT

This study investigated the influence of student's self-concept on their academic performance. A total of 297 randomly selected junior high school students in the Elmina Township, Ghana completed the questionnaire, comprising 40 close-ended items related to student's self-concept constructs derived from the literature. The average scores of the second term test-scores of students in Mathematics, Integrated Science, English Language and Social Studies were used to measure pupils' academic performance. The questionnaire used for the study was a five-point scale questionnaire. The Cronbach's alpha was used to test for the reliability of the questionnaire. The reliability coefficient was 0.86. Both descriptive and inferential statistics were used to analyse the data. It was found out that students self-concept is perceived positively by students; however, this self-concept does not directly predict students' academic performance. It does so only when students are able to exert some level of effort in learning what they have been taught during their private studies. It is therefore recommended that teachers, parents, and indeed all stakeholders should see it as a duty to consider this self-concept of students since they influence the development of positive self-concept among students when dealing or interacting with them. Also, they must help, monitor and supervise students to have private time table for learning and to guide them in their day-to-day learning since such effort boost students' academic performance significantly. If students' effort in learning goes pari passu with their physical, social, esteem, religion, economic and educational orientation self-concepts, then students will perform better academically which will in turn increase their general academic performance significantly.

Keywords: Self-concept; Effort in Learning; Students Academic Performance.

INTRODUCTION

It has been a general notion over the years that level of academic performance has been very low among Junior High Schools students in Ghana (West African Examination Council [WAEC], 2012). This trend has been attributed to certain factors including social, economic, religion and psychological, under which self-concept finds expression (Villarroel, 2001). Besides, the culture of the school has also been tagged as one of the factors that hinder students' academic performance in Ghana (Saani, 2012). For the purpose of this study, emphasis will be placed on self-concept.

It is a general wish and aspiration of students, parents, educators and all stakeholders of education, that students and for that matter, learners an all levels of education, excel in their pursuance of academic work at all times. In view of this, various attempts are being made by students, parents, teachers among others in Ghana to ensure high academic performance among students (Ghana Education Service, 2012). Some of these attempts include the act of organising extra classes for students by teachers, parents spending extra monies on their

children's education, and government increasing teachers' salaries to motivate them to give off their best. Notwithstanding these, it appears some students continue to perform below average in educational institutions in Ghana. It is a source of worry to many stakeholders especially parents whose wards find themselves in this situation and the government of Ghana who spends a large proportion of the nation's resource on education (National Development Planning Commission, 2011).

One of the most significant factors responsible for students' academic performance is their self-concept (Bandura, 1997; Villarroel, 2001; Boulter, 2002). According to Boutler, if students are expected to perform well in their examinations, positive self-concept is sine qua non. Incidentally, most research works and findings on the impact of self-concept on academic performance have been those reported from Western cultures which may be different from related issues within the Ghanaian cultural context.

In Ghana, little is known about the influence self-concept has on students' academic performance, but it appears students' low academic performance could be linked to poor self-concept (WAEC, 2012; Saani, 2012). The gap as indicated motivated the researcher to examine students' perception on self-concept and the direct or indirect influence of self-concept on students' academic performance in the Elmina Township. The outcome of this study will add to the support students' need which will in turn develop their self-concept positively. This development in the long run will further boost students' academic performance significantly. In the case of counsellors, the information that will be gathered out of the findings of this study will go a long way to enrich their knowledge about the self-concept thereby helping them build a strong base upon which effective counselling services could be rendered to their students. To achieve the stated objectives, the study hypothesised that:

H^1_0:   Junior High School Students do not perceive their self-concept positively.
H^2_0:   Junior High School Students self-concept does not influence their academic performance directly.

REVIEW OF RELATED LITERATURE

Self-concept theory has always had a strong influence on professions especially in the field of counselling. By far, the most influential and eloquent voice in self-concept theory has been that of Rogers (1947) who introduced an entire system of helping build around the importance of the self. In Rogers' view, the self is the central ingredient in human personality and personal adjustment. Rogers described the self as a social product developing and of interpersonal relationship striving for consistency. He argued that there is a basic human need for positive regard both from others and from oneself and that in every person there is a tendency towards self-actualisation and development so long as this is permitted and encouraged by an inviting environment (Purkey & Schmidt, 1987).

Self-concept may be understood as a perception every human has of himself or herself. It is a component of personality development and indicates who we are and how we fit into the world. Machargo (1991) perceives self-concept as a set of perceptions or reference points that the subject has about himself, a set of characteristics, attributes, qualities and deficiencies, capacities and limits, values and relationships that the individual knows to be descriptive of himself and which he perceives as data concerning his identity. This definition embraces issues including the set of knowledge and attitudes that we have about ourselves; the

perceptions that the individual assigns to himself or herself and characteristics or attributes that we use to describe ourselves. This is understood to be fundamentally a descriptive assessment and has a cognitive nuance (Manning, Bear & Minke, 2006).

With regard to academic self-concept, Manning et al. (2006) posit that it has two levels and relates to how well we do in school or how well we learn. While the first level deals with the general academic self-concept of how good one is in all subjects, the other has to do with a set of specific content related to self-concept that describes how good one is in mathematics, science, social studies and English language. Self-concept like any psychological construct is relative and depends on some frame of reference. According to the frame of reference model, academic self-concept will depend on a student's own academic ability and the ability level of other students within the same class. When a student perceives himself as the best in class he tends to hold a positive self-concept of himself/herself (Acosta, 2007).

According to Cooley (2000), academic self-concept is broadly conceptualized as how a student views his/her academic ability when compared with other students. For him, to be academically successful individuals must be identified with domain of academics. Academics must be part of their self-concept; more specifically, they must have a positive academic self-concept. Some previous research works suggest that there is a positive relationship between academic self-concept and academic achievement as measured by grade point average (Cooley, 2000; Gerardi, 2009).

Gerardi (2009) study of 98 first-year engineering students at City University of New York (CUNY), found that academic self-concept was the best predictor of academic success as measured by Grade Point Average (GPA) in minority and low socioeconomic status college students. Specifically, self-concept of ability better predicted academic success than cognitive variables such as college skills assessment examinations and high school GPA. Spaights, Kenner and Dixon (2010) also examined students' perception on self-concept and the relationship between self-concept and academic performance. Participants were 37 male and 81 female African American students at three universities in the University of Wisconsin system who were administered the Tennessee self-concept scale. Academic performance was measured by GPA. Spaights et al., found no significant relationship between self-concept and GPA, but for students perception, they found out that students perceived self-concept positively. While these findings are useful, it is important to note that the researchers used a global measure of self-concept, as opposed to measuring academic self-concept, which could account for the results.

Hoge, Smit and Crist (2012) also conducted a two-year longitudinal study of 322 sixth and seventh graders that compared the three levels of self-concept (high, middle and low) and studied the effects of self-concept on achievement and achievement on self-concept influences of self-concept on grades were weak but grades had a modest influence on subsequent discipline-specific self-concept. The researchers concluded that past correlation studies have overstate the influence of self-concept on grades and of grades on self-concept. Self-concept is frequently positively correlated with academic performance, but it appears to be a consequence rather than a cause of high achievement (Baumeister, Campbell, Krueger & Vohs, 2012). This suggests that increasing students' academic skills is a more effective means to boost their self-concept than vice versa.

It is clear that self-concept is a central construct which develops through interactions with others. It is technologically conceived that it is the locus of the experience that represents the

total being whose physical, psychological and spiritual dimensions cannot be separated except artificially. Crawford (2013) found out in his study that students' self-concept influence their academic performance; however, the level of effort exerted by students in learning to a large extent contributes significantly to students' self-concept in boosting their academic performance. In view of this, teachers, parents, and indeed all stakeholders have it as a duty to consider various factors that can influence the development of positive self-concept among children when dealing or interacting with them. Also, they must help, monitor and supervise students to exert some level of effort in learning since such effort boost students' academic performance.

CONCEPTUAL FRAMEWORK

The conceptual framework for this study took into consideration all possible factors from the literature and from observations to derive the dependent, independent and mediating variables for descriptive and inferential analysis. The dependent variable is students' academic performance while self-concept of religion, physical, social, economic, esteem and educational orientation constitute the independent variables. Effort put in by students in learning serves as mediating variable. The conceptual framework is illustrated in Figure 1.
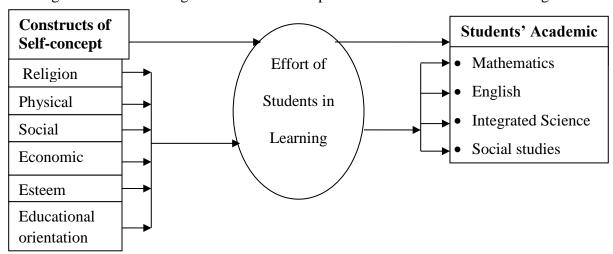

Figure 1: Conceptual framework for examining the influence of students' self-concept on their academic performance

Students' academic performance in general is influenced by student's self-concept constructs of religion, physical, social, economic, esteem and educational orientation. The study agrees that these constructs that form students self-concept do influence their academic performance positively. The explanation of the individual variables has been well dealt with in the literature. The study hypothesised that students self-concept influence students' academic performance significantly.

Figure 1, illustrates relationships between students self-concept constructs in religion, physical, social, economic, esteem and educational orientation. The Figure also shows the relationships between the independent variables of the study and the mediating variable that is effort of students in learning. Students' effort in learning is treated as intervening variable and it is believed to ignite the potency of the independent variables on the dependent variable.

The general argument is that, if student's self-concept constructs of religion, physical, social, economic, esteem and educational orientation are viewed positively or are in good shape,

they will perform well academically as expected. However, this influence is not direct as it seems. It can be seen as complex influence because the fact that the constructs are perceived positively does not mean they will perform significantly in terms of academic. The students must first exhibit some level of effort in learning what they have been taught both in the school and at home in order for them to have total development both morally, economically and academically. The effort exhibit in learning what they have been taught will boost their ability to understand and apply what they have been taught appropriately. In the long run, their academic performance will increase significantly.

In other words, if the students who have dedicated enough time in learning what they have been taught are able to imbibe the content as expected, they will be performing well and significantly in their academic work. Therefore, student's self-concept constructs of religion, physical, social, economic, esteem and educational orientation do not directly predict their academic performance but rather it predict students' academic performance indirectly through the level of effort exhibited by students in learning.

SAMPLE AND SAMPLING TECHNIQUES

The population for the study comprised all Junior High School (JHS) students from the 12 schools in the Elmina Township of the Central Region. The total number of JHS students in the area was 1345 made up of 793 girls and 552 boys. A sample size of 297 was selected based on the recommendation of Krejcie and Morgan (1970) with regard to the determination of sample size from a given population. The random number method of simple random sampling technique was first used to select 297 elements for the study. A sample frame for the selected schools was constructed using enrolment records from the District Education Directorate (Komenda-Edina-Eguafo-Abrem Education Directorate, 2013).

Using the sampling frame constructed, a list of all pupils in the selected schools was obtained, numbered and ordered accordingly. A list of random numbers that contains all numbers included in the sampling frame (ie. 0000 – 1345). The table was entered randomly, where the researchers proceeded vertically using the appropriate number of digits. The researcher started at any point on the table of random numbers. With the 1345 students, the number of digits countered each time was four. In the sampling process, anytime the researcher encountered numbers falling within the sampling frame the specific element with that number was selected and recorded. However, four digit numbers that were not for any elements in the population were rejected. This method was used because the pupils' population was similar in characteristics of interest. The process continued until the required numbers of respondents (297) were recorded from the students.

INSTRUMENT

The main instrument used for the study was questionnaire which was in the form of summated scales ranging from one to five where one represents the least agreements to the issues while five represents the strongest agreements to the issues. In all, the questionnaire was made up of seven main sections i.e. A to G, with a total number of 40 items. Section A had four items which elicited exclusively background information about the subjects. Issues considered in this section included name, form/class, gender and age. The subsequent sections considered the religion self-concept, physical self-concept, self-esteem, social self-concept, economic self-concept and educational orientation respectively of the respondents. Each section comprised six items. The possible maximum obtainable score for each section

was 30 with possible minimum obtainable score for each respondent being six. The model for interpreting the grades was the higher the score the more desirable the trait and vice versa.

With regard to the academic performance of students, the students' average scores for the three terms in the core subject (English Language, Mathematics, Integrated Science and Social Studies) for 2012/13 academic year was used. The scores were put in five-point scale to match with that of the self-concept scale in other to have uniformity regarding the measurements of the items. This makes it easier for inferential analysis. The questionnaire was pre-tested at the University Junior High School in the Cape Coast Metropolis due to its proximity to the researchers and also the common characteristics the elements share with those in the main study area. The questionnaire was tested for its internal consistency using Cronbach's alpha with a reliability coefficient of 0.86. This according to Malhotra and Birks (2007) is high and satisfactory.

DATA COLLECTION PROCEDURE

Letters for permission to conduct the study were first written to the District Director of Education and the headteachers of the 12 JHS schools in the study area. The questionnaires were administered personally by the researchers with support from two research assistants from the Centre for Continuing Education, University of Cape Coast. The study recorded 100 percent return rate of the questionnaire.

In obtaining data on the respondents' academic performance, the researchers requested for their examination scores from their respective schools that were used for the study. These comprised the end of the three terms examination results in their second term on only the core subjects (English Language, Mathematics, Integrated science and Social Studies). On the whole, the exercise was successful since the headteachers and the respondents in all the schools visited for the study were very cooperative.

RESULTS AND DISCUSSION

The first objective of the study was to find out whether students perceived self-concept positively or negatively. The hypothesis formulated to test this assumed perception was that:

H$_1$:   Junior High School Students do perceive their self-concept positively.

Students self-concept constructs considered were religion, physical, esteem, social, economic and educational orientation. Six items each were used to elicit data on these self-concept which were later pooled together to form each of the sub self-concept for descriptive analysis using mean, median, standard deviation and skewness with the help of the Statistical Package for Social Sciences (SPSS) Predictive Analytic Software (PASW) Version 18.0. However, the items were measured with five-point Likert scale type as indicated earlier. The results are presented in Table 1.

Based on the five-point Likert scale type used, the average response score used in categorising the data into positive and negative was a mean score of 3.0. That is (1 + 2 + 3 + 4 + 5) / 5 = 3.0. Similarly, using the median score, any value greater than 2.5 was deemed to be perceived as positive while any score equal to 2.5 or less than 2.5 was deemed to be perceived as negative. These categorisations were done based on the recommendation of Pallant (2001) regarding the interpretation of descriptive statistics such as mean and median.

With regard to the standard deviations, it is clear that the elements used for the study are homogeneous group who understand the concept under study almost at the same level. This is so because the various standard deviations are closer to each other (Pallant, 2001).

Table 1: Students view on self-concept

Constructs of Self-concept	Mean	Median	Std. Dev.	Skewness
Religion	3.96	4.00	0.40	-.76
Physical	4.07	4.17	0.65	-1.44
Esteem	3.04	2.83	0.44	0.95
Social	3.65	3.67	0.65	-1.14
Economic	3.38	3.33	0.56	0.27
Educational orientation	3.79	3.67	0.38	1.18
Students self-concept	3.648			

Source: Field Data, 2013.   (n = 297)
Where SD = standard deviation and SK = skewness

As contained in Table 1, students perceived all the self-concept positively (Mean = 3.648). The Table shows further that the most perceived self-concept construct of students was physical self-concept (Mean = 4.07, SD = 0.65), followed by religion (Mean = 3.96, SD = 0.40) and educational orientation (Mean = 3.79, SD = 0.38) self-concept. The findings mean that students have positive perception about themselves. Therefore, the study rejects the hypothesis that Junior High School Students do not perceive their self-concept positively. This shows that the self-concept component of personality development of students which indicates who they are and how they fit into the world is positive. The findings is in line with the submission of Machargo (1991) who perceives self-concept as a set of perceptions or reference points that the subject has about himself, a set of characteristics, attributes, qualities and deficiencies, capacities and limits, values and relationships that the subject knows to be descriptive of himself and which he perceives as data concerning his identity.

The second objective of the study was to find out whether students self-concept influence their academic performance directly or indirectly. The measurement and computation of the individual variables have been explained earlier. The hypothesis formulated to test this assumed influence was that:

H$_1$:   Junior High School Students self-concept influences their academic performance directly.

The hypothesis tested as indicated in Table 2 was that the student's self-concept will not predicts their academic performance directly and that it will predicts it indirectly. First, the various self-concept considered, that are; religion, physical, esteem, social, economic, and educational orientation were used as the independent variables while students' academic performance in Mathematics, English, Integrated Science and Social Studies was used as dependent variable. The level of effort exerted by students in learning was used as an intervening or mediating variable. The study argued that for students' self-concept to predict significantly their academic performance, the students must first exert some level of effort in their day-to-day learning activities which will help them to imbibe the content of what they have been taught. This in a long run will boost their self-concept which will lead to a significant increase in their academic performance. The results are presented in Table 2.

Table 2: Influence of students' self-concept on their academic performance

Variables	Model I			Model II		
	Beta	SE	Sig.	Beta	SE	Sig.
Religion	0.119 *	0.055	0.026	0.103*	0.064	0.043
Physical	0.371**	0.039	0.001	0.311**	0.039	0.000
Esteem	0.192	0.044	0.053	0.114*	0.044	0.015
Social	0.288*	0.065	0.024	0.201**	0.041	0.004
Economic	0.042	0.038	0.120	0.051*	0.064	0.048
Educational orientation	0.214*	0.045	0.041	0.009*	0.043	0.035
Effort in learning				0.401**	0.035	0.000
Constant	1.017			0.861		
R Square	0.343			0.682		
Adjusted R Square	0.339			0.675		

**p<0.01   *p<0.05   Dependent Variable = Students Academic Performance   (n = 297)
Source: Field Data, 2013.   *Where SE = standard error*

In the first model, the six selected self-concept of students were entered as independent variables with students' academic performance in the school operating as dependent variable. The results as shown in Table 2 indicate that the standardised beta co-efficients for esteem and economic self-concept were not statistically significant. However, in order of importance, physical (Beta = .371 (.039), p = .001), social (Beta = .288 (.065), p = .024), educational orientation (Beta = .214 (.045), p = .041) and religion (Beta = .119 (.055), p = .026) self-concept constructs were statistically significant with regard to their contributions to students self-concept.

This means that physical, social, educational orientation and religion self-concept are the only statistically significant self-concept of students that contribute to their academic performance. In addition, the unique proportional contribution of the student's self-concept to students' academic performance in the school is .343 with an adjusted R^2 of .339. This means that student's self-concept constructs are able to predict or explain only 34 percent of the variance in students' academic performance in the school. It therefore means that besides these self-concept constructs identified, other factors not yet in the model have a chance of contributing or predicting about 66 percent to students' academic performance in the school. The result suggests that students' self-concept constructs alone do not contribute significantly to their academic performance in the school and that they do so when other variables are considered.

In the second model, the mediating variable which was effort exerted by student in learning was entered into the model. The theory here is that student's self-concept constructs in themselves do not predict directly students' academic performance in the school significantly, and that they do so indirectly through the effort exerted by the students in learning what they have been taught. When effort exerted by students in learning was entered into the model, the beta co-efficient of the self-concept shrank while that of esteem and economic self-concept that were not significant became significant at 0.05 significant levels in the second model.

The resultant shrinkage and significance in the beta co-efficient mean that student's self-concept do not directly influence their academic performance to the school. They do so only when the students are able to exert some level of effort in learning. In other words, they do so when students exert some effort in learning what they have been taught which will help them to imbibe the content as expected. However, it is important to observe that the unique proportional contribution of students' self-concept constructs and their effort in learning was

.682 with an adjusted R^2 of .675. This means that students' self-concept constructs and students' effort in learning were able to predict or explain about 67 percent of the variance in students' academic performance in the school. It therefore means that besides these main variables identified, other variables not yet in the model have a chance of predicting about 33 percent to students' academic performance in the school.

The significant increase with regard to the unique proportional contribution of the independent variables and the mediating variable on students' academic performance in the school mean that when students are able to exert some level of effort in their day-to-day learning activities, they will be able to absorb what they have been taught which in the long run will increase their academic performance. Therefore, the study rejects the hypothesis that Junior High School Students self-concept influences their academic performance directly, since the influence is indirect through effort exerted by students in learning. The findings corroborate with that of Crawford (2013) who found out in his study that students' self-concept influence their academic performance significantly. Crawford further found that the level of effort exerted by students in learning to a large extent contributes significantly to their self-concept which in turn boosts their academic performance.

CONCLUSIONS

The study has established that all the six self-concept of students influence students' academic performance in schools indirectly through students' effort in learning. By implication, counsellors are expected to put much premium on these constructs in any attempt to counsel students to overcome their academic challenges. In view of this, teachers, parents, and indeed all stakeholders have it as a duty to consider these self-concept constructs of students since they influence the development of positive self-concept among students when dealing or interacting with them. Also, they must help, monitor and supervise students to have private time table for learning and to guide them in their day-to-day learning since such effort boost students' academic performance significantly.

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