

The Predictive Relationship between Academic Self Efficacy and Ego Identity of Schooling Adolescents in Enugu State of Nigeria

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Abstract: The study investigated the extent to which academic self-efficacy predicts ego identity of schooling adolescents in Enugu State, Nigeria. One thousand two hundred schooling adolescents were selected randomly to participate in the study. A thirty item questionnaire each on academic self-efficacy and Ego identity were used to generate data for the study. One research question and one hypothesis were tested in the study and data were analyzed using analysis of variance (ANOVA) and correlations to determine the correlation coefficient and to test the hypothesis at 0.05 levels of significance. The result indicated that academic self efficacy predicted ego identity of the subjects. Based on the findings, appropriate recommendations were made to the governments and parents, teachers and students. It was also recommended that other variables that can influence ego identity be further studied.

Keywords: Academic self efficacy, Ego Identity, Predictive, correlation, performance

INTRODUCTION

Researchers in Nigeria are currently showing a lot of interest in such specific psychological constructs as academic self efficacy, achievement behavior, self concept, ego identity and so on. The aim has been to determine how they interrelate with each other and also to find out how the constructs individually and collectively influence wholesome development of the schooling adolescents. The enlarged interest of researchers and educationalists on the schooling adolescents in Nigeria, apparently, is informed by the fact that of recent the performance of the Nigerian secondary school students in such public examinations as West African School Certificate Examinations, (WASCE), National Examination Council (NECO) and the various Unified Tertiary Matriculation Examinations (UTME) conducted by Joint Admission and Matriculation Board (JAMB) has been declining ceaselessly. For instance, in the 2014 WASCE examination it was reported that there was over 8% decline in candidates' performance as only 29.17% obtained credits in 5 subjects and above including English and Mathematics (Vanguard, Nigeria, August 12th 2014 ed). The report also showed that Nigeria had recorded a continuous decline in the previous 3 years: 38.81% in 2012, 36.57% in 2013 and 31.28% in 2014. For Nigeria, a developing country that invests so much on the education of the youths, continuing poor performance of her youths in such public examinations that are very crucial in the determination of their future puts the country at a precarious disadvantage in the

competitive global economy. According to Cech [1], a progressively complex world calls for increasingly skilled people who can compete favourably in the global labour market.

The situation described above has prompted researchers to look beyond such environmental factors as the quality of teachers, school location, provision of infrastructure and other equipment in schools, in search of solutions to the problems of Nigerian schooling adolescents. Akomolafe *et al*[2] investigated the role of academic self-efficacy, academic motivation and academic self-concept in predicting secondary school students' academic performance. Their results showed that academic self-efficacy, academic motivation and academic self-concept significantly predicted students' academic performance. Osang[3] in his research entitled "Comparative study of self-concept among deaf and hearing Nigerians", observed that the way someone sees himself or herself exercises, a great deal of influence on that person's achievement and mental health. His study confirmed the existence of a positive significant relationship between self-concept and academic achievement.

The present study is focusing on the link between academic self efficacy and ego identity. Research in other climes has indicated that there is a strong link between academic self efficacy and self concept and ego identity. It has been shown that adolescents with strong academic self-efficacy have

been found to have higher achievement in school, both independently and as a function of high academic aspirations, more positive social behavior, and reduced vulnerability to feelings of futility and depression [4]. Other studies have found that they are more likely to accomplish self-set academic goals [5], achieve good academic progress, and have high educational aspirations[6]. Another study found that college students with high academic self-efficacy not only had stronger academic performance but were also better adjusted personally[7]. It needs be said that none of these studies have sought to link academic self efficacy with ego identity. Besides, none of the studies had sought to probe these constructs in relation to Enugu state adolescents. This is the significance of the present study.

LITERATURE REVIEW

Academic self-efficacy

Academic self-efficacy is defined “as a personal judgment of individual’s capabilities to organize and execute courses of action to attain designated types of educational performance [8]. Substantial evidence demonstrates that academic self-efficacy is associated with important academic and social outcomes. Research shows, for instance, that students with high academic self-efficacy exhibit better learning strategies and better tracking of their own outcomes than students with low academic self-efficacy[5]. Adolescents with high academic self-efficacy have been found to have higher literacy and math achievement than those with low academic self-efficacy[3]. This implies that academic self efficacy belief is related to academic performance. Academic self-efficacy is the amount of confidence individuals have in their ability to successfully perform academic tasks at a designated level. It is also a belief that one is able to execute a course of behaviour necessary to achieve academic goal, hence Lent and Marsh [9] defined it as the level of confidence that a student feels regarding one’s ability to successfully complete academic tasks of each academic milestone. In this study, academic self efficacy belief is seen as schooling adolescents’ conviction that one can accomplish a certain level within an academic task or reach a specific academic and social goal.

Academic self efficacy and Ego strength

There seems to be a tenuous link between academic self efficacy and ego identity. According to Pajares [10] self-efficacy beliefs help foster precisely the outcome one expects. For him, this determines the very heart of the “self-fulfilling prophecy”. Confident students anticipate successful outcomes. Students confident in their social skills anticipate successful social encounters. Those confident in their academic skills expect high marks on exams and expect the quality of their work to reap academic benefits and ultimately higher social regard. The opposite is true of

those who lack confidence. Students who doubt their social skills often envision rejection or ridicule even before they establish social contact. Those who lack confidence in their academic skills envision a low grade before they even begin an exam or enroll in a course. When self-efficacy belief and perceived outcome differ, the belief can easily determine the behavior[10]. Pajares believes that in the social arena, a young man may realize that pleasing social graces and physical attractiveness will be essential for dating a young chap who has caught his eye, which, in turn, may lead to a romantic interlude and even a lasting relationship. If, however, he has low confidence in his social capabilities and doubts his physical appearance, he will likely shy away from making contact and hence miss a potentially promising opportunity[10].

The implication here is that academic self efficacy beliefs correlate positively with self confidence which is a powerful booster of ego identity.

Ego Identity

According to Kendra [11] ego identity is a series of core beliefs (self-definitions) that also function as a defense/protection mechanism. It is who one thinks he is as well as familiar feelings and emotions one identifies with oneself. She uses the concept of “belief” and “Knowingness” to differentiate how an adolescent and an adult, for example, construct ego identity. According to her, a belief is a firmly held opinion that is taken as truth. Beliefs are unquestioned assumptions that are taken for granted. In contrast, “knowingness” emerges from common sense wisdom. Knowingness is derived directly from experiences once the brain has fully developed and, abstract reasoning is available and functioning well. Young adolescents believe beliefs while adults have the capacity to Know, provided they are psychologically matured. She maintains that the ego identity begins around two years of age when the child understands simple language and the child begins to associate names with objects, including the body. The ego identity solidifies as a mental structure around 7 to 9 years old.

In his theory of psychosocial development[12], Erikson sees Ego identity as the conscious sense of self that one develops through social interaction. He maintains that ego identity is constantly changing due to new experiences and information one acquires in their daily interactions with others.

Psychologists refer to identity as all of the beliefs, ideals, and values that help shape and guide a person's behavior. Formation of identity begins in childhood and becomes particularly important during adolescence, but it is a process that continues throughout life. One’s personal identity gives one an integrated and cohesive sense of self that endures and continues as they age[11].

In addition to ego identity, Erikson [13] also believes that a sense of competence motivates behaviors and actions. Each stage in Erikson's theory is concerned with becoming competent in an area of life. If the stage is handled well, the person will feel a sense of mastery, which is sometimes referred to as ego strength or ego quality. If the stage is managed poorly, the person will emerge with a sense of inadequacy. A basic concern of this study is to find out how academic self efficacy as an independent variable predicts ego identity as a dependent variable.

Purpose of the study

Specifically, the purpose of this study was:

To determine the extent to which academic self efficacy predicts the ego identity of schooling adolescents in Enugu State of Nigeria.

Research Question

For in-depth study of this phenomenon, the researchers posed a research question and a hypothesis:

To what extent does academic self efficacy predict ego identity of schooling adolescents in Enugu State?

Hypothesis

The following null hypothesis was formulated and tested at 0.05 level of significance:

Academic self efficacy does not significantly predict the ego identity of schooling adolescents in Enugu State.

METHOD

Correlation survey was used as the design for this study. Ali [14] defined this type of design as a general approach to research that focuses on assessing the co-variation among naturally occurring dependent and independent variables. The correlation survey used here involved the employment of a pre-determined set of questions making up the study questionnaire. The rationale for the use of correlation survey design is to enable the researchers obtain easily interpretable responses concerning the predictive relationships between academic self-efficacy beliefs and ego identity of the subjects under study.

The area of this study is Enugu State, Nigeria. Enugu State is composed of six education zones, thus: Enugu, Nsukka, Agbani, Awgu, Obollo-Afor and Udi education zone. (Planning, Research and Statistics unit, Post Primary Schools Management Board (PPSMB) Enugu Office, Enugu [15].

The population of the study comprised all the 11,827 Senior Secondary 11(SS2) 2012/2013 schooling adolescents:(5854 males and 5973 females) (PPSMB, Education Zonal Office, Enugu 2012[15]. Enugu State has a total of 277 public secondary schools. The choice

of SS2 students was guided by the fact that they were then not preparing for any external examination. The sample for the study comprised 1200 randomly selected Senior Secondary School (SSII) students, consisting of 600 students from mixed- sex secondary schools and 600 students from single- sex secondary students in Enugu State. From these two groups, the researchers randomly selected 5 mixed sex and 5 single sex secondary schools making 10 secondary schools for each education zone. The single sex students consisted of 600 and the mixed sex students consisted of 600.

Two instruments developed by the researchers were used in this study, namely: Academic self-efficacy Scale (ASES) and Adolescent Ego identity scale (AEIS)

Academic Self – Efficacy Scale (ASES)

The ASES was constructed by the researchers. It is a four-point scale meant to determine students' beliefs or convictions that they can successfully achieve at a designated level in a specific academic subject area. The scale range from Very True of Me = 4, True of Me = 3, Untrue of Me = 2, and Very Untrue of Me = 1. The items were developed from information generated from the pertinent dimensions of academic self efficacy beliefs significantly associated with students' learning. These are: cognitive engagement, analytical thinking, academic commitment, strategy use, persistence, susceptibility to negative emotions and achievement. The researchers constructed 30 items that cover the dimensions. The positive items were given the rating of 4 to 0 and negative items were given the rating of 0 to 4 respectively.

Adolescent Ego identity scale (AEIS)

The AEIS was also developed by the researchers. The instrument consists of 30 items measuring structure on self understanding of ego identity, goals, values and commitments, harmony and consistency of values of ego identity, willfulness or self-chosen direction and future potential for the self. These dimensions reflect the Eriksonian[13] and Marcian [16] focus on the power and role of social institutions on ego identity development of adolescents. The rating response format of Strongly Agree 4, Agree 3, Disagree 2 and Strongly Disagree 1 was used. The positive rating ranges from 4 to 0 and negative rating for 0 to 4. Items was scored by weighting the "strongly agree" response with a value of 4 and the "strongly disagree" with a value of one. The questionnaire has seven clusters of five or four items in each cluster.

The decision to uniform number of 30 items in each instrument was taken by the researchers after considering advice from the experts that validated these instruments. The ASES was face validated by four experts: 2 each in Educational Psychology and Measurement and Evaluation. The AEIS was given the same treatment.

The ASES was trial tested by administering it to 30 SSII students drawn from a mixed -sex and single-sex secondary schools in Enugu Education zone not in the sample. The internal consistency reliability estimate of the instrument was determined using the Cronbach Alpha method and the obtained reliability estimate was 0.88. This index suggests high reliability of the scale.

AEIS was subjected to the same treatment and had a value of 0.83. These indexes were high and suggested high internal consistency reliability.

A total of 1200 copies of the instruments were distributed physically with the help of research assistants and teachers in the individual schools. The same number was collected back. This is because the number of instruments distributed per stream for each selected secondary school was 20 copies based on the randomly selected students sampled per stream. Only 10 secondary schools were randomly selected per education zone. The data collected after administering the questionnaires were analyzed in line with the research questions and hypothesis. Analyses of variance (ANOVA) and correlations to determine the correlation

coefficient was used to test the hypothesis at 0.05 levels of significance.

RESULTS

To What extent does academic self efficacy belief predict ego identity of schooling adolescent?

Result in table 1 shows the extent academic self efficacy belief predicts ego identity of schooling adolescents. The R value was 0.092 and beta value was 0.092. This result indicates that for every standard deviation unit change, the independent variable will rise by 9.2% of one unit standard deviation in the dependent variable. This result indicates that academic self efficacy contributes to the prediction of ego identity of the schooling adolescents. This result answers the research questions above.

Result shown in table 2 and 3 indicate that academic self efficacy was significantly a predictor of schooling adolescents' ego identity. The calculated f-ratio value was 10.332 $p < 0.001$, which was significant at 0.001 levels and at 0.05 levels. Also, t- value was 3.214 $p < 0.001$ and was significant at 0.05 levels. Therefore, the null hypothesis that academic self efficacy does not predict ego identity was rejected

Table 1: The model summary of the R, R square, Beta, and Adjusted R square in regression analysis.

Model	R	Beta	R-square	Adjusted R square	STD Error of the Estimate
1	0.092	0.092	0.009	0.008	0.47812

Predictors (constant) Academic Self Efficacy

Table 2: The significant levels in Regression analyses of variance (ANOVA) for the prediction of academic self efficacy belief on ego identity

Model	Sum of Square	Df	Mean square	F-ratio	Significant 0.05
1	2.362	1	2.362	10.332	0.001
Residual	273.861	1198	0.229		
Total	276.223	1199			

Predictors (constant) Academic Self Efficacy

Dependent variable, ego identity

Table 3: The beta coefficients in a regression analysis.

Model	Unstandardized Coefficient		Standardized Coefficients	T	Significant 0.05
	B	STE Error	Beta		
Constant	2.610	00.78		33.332	0.000
Academic Self efficacy	0.082	0.025	0.092	3.214	0.001

Dependent variable: Ego identity

DISCUSSION

The finding as shown above on Academic Self Efficacy as a predictor of Ego identity of the schooling adolescents indicates that model summary shows that R-value was 0.092, and beta value was 0.092, indicating that 9.2% of the independent variable contributed to the prediction of the dependent variable. The analysis of variance shows that the calculated value of F-ratio was

10.332 $p < 0.01$ was significant at 0.01 and 0.05 levels and the t-value calculated was 3.214 $p < 0.01$ was also significant at 0.05 levels. This result reveals that academic self efficacy was a predictor of ego identity of the subjects. Thus, the hypothesis of no significant prediction was rejected. The indication here is that high achievement levels in adolescents tend to boost their sense of self worth, their ego etc. Udeorah [17]

supports this finding. His study showed that properly developed academic self efficacy enable the schooling adolescents to form good ego identity and cognitive reasoning necessary in establishment of ego identity status in their academic activities in their various societies.

Erikson [12] seems also in support of this result. He opined that the adolescence stage of development is the critical period of one's ego identity formation. Ego identity, according to him, is uniquely formed in each individual through the process of exploration and commitment, and depends on the support which the adolescents receive from the collective sense of ego identity which social groups assigned to them[16]. Although little research has compared ego identity and academic self efficacy together, there seems to be a significant link between the two concepts. Research such as Elias and Loomis, [18] suggests that high academic self efficacy is related to high academic achievement, which in turn, is positively linked to ego identity.

CONCLUSION AND RECOMMENDATIONS

It can be concluded from the result above that the predictive value of academic self efficacy of the subjects under study is significant. This result is in correspondence with earlier studies conducted in other lands. This significant predictive value may be predicated on the fact that the adverse social factors (poor exam scores, consequent unemployment, depressed sense of self worth etc) prevalent in the adolescents' environment do not seem to affect their ego identity, and perhaps their academic self efficacy beliefs as hitherto speculated.

This conclusion must not be taken as conclusive. This is because the geographical coverage and the population studied cannot be said to be extensive enough. The implication here is that more in-depth study with larger geographical coverage and larger population is required. There is also a caveat here: because of the fact that level of significance is not very high, teachers and curriculum planners are advised to make provision for proper sensitization of the adolescents on the constructs. Students on their own should be encouraged to practice self-assertive exercises.

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