

Self-Efficacy, Self-Concept and Peer Influence as Correlates of Academic Achievement among Secondary School Students in Transition

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Abstract: The study investigated self-efficacy, self-concept and peer-influence as correlates of academic performance among adolescents in transition. The descriptive survey design was adopted for the study. The simple random sampling technique was used to select 300 participants in senior secondary school one from six secondary schools in Yenagoa metropolis of Bayelsa State, Nigeria. Of the total sample, (144) were boys, while the remaining (156) were girls. Their age ranged between 12 and 18 years with a calculated mean age of 14.6 years and SD of 2.2. The students responded to three valid and reliable instruments, student self-efficacy questionnaire, self-concept inventory and peer-influence questionnaire. Data analysis involved the use of step-wise multiple regression procedure to examine the predictive effect of the three variables on the academic performance. The result indicated that the three variables were effective in predicting students academic performance. Each of the variables also contributed significantly to the prediction of students' academic performance. Based on the findings it was suggested that school counselling psychologists should assist students in transition to develop self-efficacy, self-concept and positive peer relations.

Key words: Self-efficacy, self-concept, peer influence, secondary school students and transition

INTRODUCTION

Transitions are often difficult time of life that is full of challenges. There is a generalized or overall persistent level of worry for most students in transition (Akos, 2002). As young adolescents make the transition into senior secondary school, they are in the process of discovering new social activities, learning new ways to relate to others like new set of classmates, new set of peers, probably new set of teachers, faced with new curriculum which is highly loaded and choice of subject selection. Many experience a decline in school attendance (Barone *et al.*, 1991) they experience an increased need for friendship (Hertzog *et al.*, 1996) and by the end of middle school grade, as many as 6% drop-out of school (Owings and Peng, 1992). For middle school students, the transition into high school can be unpleasant experience (Phelan *et al.*, 1994).

As students transit into senior secondary school, they are concerned about being picked on and teased by old students, having harder work; making lower grades and getting lost in a larger unfamiliar contextual environment (Phelan *et al.*, 1994). Contextual transition commonly includes additional and unfamiliar students and school staff and multiple sets behavioural and classroom rules and expectations.

This contextual change during transition is heightened by personal change. Physical, emotional and social changes that occur in puberty have been associated with heightened emotionality, conflict and defiance of adults (Berk, 1993). Research has highlighted that both boys and girls show a significant increase in psychological distress across the transition from elementary school to middle school (Chung *et al.*, 1998). Even though declines in achievement and increased distress are not gender exclusive, boys tend to show a significant drop in academic achievement, while girls seem to experience a greater level of psychological distress after the transition (Chung *et al.*, 1998). Also during the transition, girls find peer relationship most stressful, whereas boys find peer relationship, conflict with authority and academic pressures as equal stressors (Elias *et al.*, 1992). The achievement of students has been a source of great concern for educators, parents, guardians, curriculum planners and researchers. This general concern stems from prevailing poor achievement recorded by students almost each succeeding year at the end of their secondary school course (Ezeazor, 2003).

Attaining a high level of academic achievement is what every parent or guardian wishes for his/her child. It is therefore a thing of concern when students are not performing up to expectation. One of the declarations of

the Jomtien (1990) World Conference on Education for all by the year 2000 portrayed the fact that there is widespread concern over students' poor achievement. The Conference declared in part, that it would not be enough to have increase in the number of children who go to school under the extended education proposed by the conference but that there should also be a corresponding increase in the learning outcomes of these students. The poor performance of students in general subjects (English language and Mathematics) at the senior secondary school level over the years is no more hidden. Akinsola (1994, 2000) lamented that the level of performance in Mathematics at the secondary school level has remained poor and that there are no signs of improvement in the near future.

In literature, there are numerous factors influencing academic achievement. These include school quality (Obemeata, 2001; Ogunniyi, 1996; Fayombo, 1998) teacher quality (Labo-Popoola, 2002; Awoyemi, 1986; Awomolo and Adeyegbe, 1995), school environment (Ilori, 1995; Okwlagwe, 1999; AllanMcCluskey, 1997) poor implementation of policy on education (Salami, 1992) and provision of resources (Farombi, 1998). Also, Keeve (1995) emphasized the use of textbooks as having positive effect on student achievement. Other research findings have shown that individual characteristics such as motivation, orientations, self-esteem and learning approaches are important factors influencing academic achievement (Minneart and Jasen, 1992; Watkin, 1986). While all these individual learner variables are believed to influence achievement, little is known about the combination of self-efficacy, self-concept and peer influence on academic achievement of secondary school students. It is on the basis of these problems that the researchers sought to find out the influence of self-efficacy, self-concept and peer-influence on academic performance of secondary school students.

Peoples' well-being is determined by their efficacy to mobilize cognitive resources and the course of action needed to exercise control over given event (Bandura, 1977, 1986). Self-efficacy refers to an individual's belief that he/she is capable of successfully performing a task. The higher an individual's self-efficacy, the more confidence he/she has in his/her ability to succeed in a task (Alarape and Afolabi, 2001). People with low self-efficacy are more likely to lessen their effort or give up altogether, while those with high self-efficacy will try harder to master challenges. A sense of low efficacy contributes to anxiety, perceived vulnerability and negative thinking. Self-efficacy beliefs influence task.

To corroborate the above, Pajares (2003); Schunk and Pajares (2001) and Schunk (1994) have in their various

research works affirmed that, self-efficacy beliefs influence the choice people make and the course of action they pursue. Most people engage in tasks in which they feel competent and confident and avoid those in which they do not. Efficacy beliefs also influence the amount of stress and anxiety individuals experience as they engage in task and the level of accomplishment they realize. Higher self-efficacy helps create feelings of serenity in approaching difficult tasks and activities.

A wealth of research findings indicates that self-efficacy correlates with academic achievement (Bandura, 1997; Pajares, 1996; Schunk, 1995). Self-efficacy also correlates with indices of self-regulation, especially use of effective learning strategies. Self-efficacy, self-regulation and cognitive strategy use are inter-correlated and predict academic achievement (Pintrich and De Groot, 1990). Students with high self-efficacy for successful problem solving display greater performance monitoring and persist longer than do students with lower self-efficacy (Bouffard-Bouchard *et al.*, 1991). Self-efficacy affects academic achievement directly and indirectly through its influence on goals (Zimmerman and Bandura, 1994).

Self-concept is the set of knowledge and attitude that an individual has about one, the perception that the individual assigns to himself and characteristics of attributes that he uses to describe himself. The importance of self-concept stems from its notable contribution to personality formation. This has to do with social competence since it influences how the person feels, how an individual thinks, learns, value himself, relate to others and ultimately how he behaves.

Self-concept has been found to be a contributor to an individual's academic achievement (Helme and Aken, 1995) though the direction of causality between academic achievement and academic self-concept has been the subject of considerable interest and speculation in educational psychology (Bryne, 1984; Helmke, 1992; Marsh, 1990).

Ekpeyoung (1989) examined the influence of self-perception on academic achievement of 420 senior secondary school one students in Calabar and concluded that self-concept or self-perception significantly influences students' academic achievement. Further, House (1997) contended that, there exists a reciprocal relationship between self-concept and academic achievement of student. To an extent, a student who perceives himself/herself as wanting to learn, usually succeed. The success serves as reinforcement thereby strengthening his/her desire to learn and engage in more complex and challenging task.

Adedipe (1986), reported that relationship exists between self-concept and achievement in Mathematics and English language among senior secondary school students. Further, mathematics skills are associated with better Mathematics self-concepts but slightly lower verbal self-concepts, whereas, better verbal skills are associated with better verbal self-concepts but slightly lower Mathematics self-concepts. Other studies showed that the unique way that an individual perceives, evaluates and constructs the self, including self-conception of ability are relevant to his/her academic. Thus, students with a high self-concept of ability in a domain have higher expectations of future success (Odinko, 1999). To corroborate the above, Aremu and Oluwole (2001) and Wuensch and Lao (1987) have established that the way and manner the child perceives himself could affect his academic performance.

Peers are significant influence on adolescent day-to-day school behaviours and feelings; including how much they value school, how well they perform in class. Although, peers may play less influential role than parents and teachers in influencing adolescents' long-term educational and occupational plans, they remain a formidable force in adolescent life (Steinberg, 1996).

Children's social and emotional competencies form a critical foundation for academic achievement. How children get along with peers is actually at least as important for school achievement as intellectual ability. Socially skilled children and youth, who are able to cooperate, make friends, share, help peers and behave responsibly in the class can boost their academic achievement.

Other researchers have also indicated the pertinent role of peer influence on academic achievement. For example, Berndt *et al.* (1990) found that peers do influence achievement motivation, particularly when they have a close, non-conflicting relationship. To corroborate the above, Erika (2000) found that availability of peers who endorse achievement related behaviours may serve as a buffer from negative attitudes and a school culture that is not conducive to the motivation of its students. Marjoribanks (1985) is of the opinion that attitudes and aspirations of peers could affect an individual's effort and achievement in school.

Epstein (1993) in his research established a link between positive peer influence and academic outcome. Levitt *et al.* (1994) found peer support to be positively related both directly and indirectly to achievement. In the same vein, Wentzel (1994) found that academic support from peers was positively related to the pursuit of academic pro-social goals, as well as efforts to achieve

academic and socially responsible goals. Therefore, the adolescents in this investigation who were supported by their peers were more engaged in socially responsible behaviour in the classroom. Appropriate social behaviour has been identified as an important factor in peer acceptance, which, in turn, is related to academic achievement. Therefore, those students who are supported by their peers tend to act in a more socially acceptable manner, which garners further acceptance by their peers. Upon review of the research findings examining the role of the peer group in adolescents academic achievement, it is evident that the link between peer socialization (via peer-influence and/or support), achievement, motivation and academic achievement remains clear.

The purpose of this study was to investigate the influence of self-efficacy, self-concept and peer influence on academic achievement of secondary school class one students

To actualize the objective of the study, the following 2 research questions were answered in the study.

- Would self-efficacy, self-concept and peer-influence (independent variables) predict senior secondary school one students' academic performance?
- Would self-efficacy, self-concept and peer influence as individual variables impact on students' academic performance?

MATERIALS AND METHODS

Design: This is a descriptive survey research. As pointed out by Adeyemo (2001) the approach involves interpretation of facts without manipulating any variable. One of the advantages of survey research and relevant to the present study is the fact that it makes comparisons and evaluation of existing condition as well as collection of factual information possible.

Participants: The participants in the study were 300 senior secondary school class one students randomly selected from 6 secondary schools in Yenagoa municipality in Yenagoa Local Government Area (LGA) of Bayelsa State, Nigeria. The students are offering Science, Arts and Vocational subjects. Of the total sample, (144) were boys while the remaining (156) were girls. Their age ranged between 12 and 18 years with a calculated mean age of 14.6 and SD of 2.2.

Instrumentation: Three instruments were used to collect data for the study. The instruments were described below.

Student self-efficacy questionnaire: The Morgan-Jink student self-efficacy scale developed by Morgan and-Jink was used to assess the academic self-efficacy of the participants. The instrument has a total of 31 items with response format ranging from (1) strongly disagree to (5) Strongly Agree. A typical item on the inventory read thus: "I work hard in school". The instrument had an overall reliability coefficient of 0.82. The sub-scales Alphas were 0.78 for talents, 0.70 for context and 0.66 for efforts.

Self-concept Inventory: Sub-scale A of the Adolescents Personal Data Inventory (APDI) was used for the study. The APDI by Akinboye was developed to measure the social, family, biological and educational factors affecting the behaviour of Nigerian adolescents. The sub-scale A of the APDI measures the adolescents' self-perception that is, self-concept. The APDI has an internal consistency reliability of 0.87. It also has a test-retest reliability indicated by $r = 0.87$ after three weeks and $r = 0.80$ after 2 months. The instrument had been shown to be valid as it has been widely used by researchers among Nigerian samples with success (Salami, 1999).

Peer influence questionnaire: The researchers constructed peer influence questionnaire. The instrument has a total of 18 items with response format ranging from (1) not at all like me to (5) very much like me. A typical item is "Most of my friends in school are doing well in their study". It has a test-retest reliability index of 0.76.

Academic performance: The results obtained by the participants in their first term examination were used as a measure of their academic performance. Four core subjects namely English language; Mathematics, Biology and Geography were used for this purpose.

Procedure: Data for the study were obtained using the three valid and reliable instruments earlier mentioned. The instruments were administered on the participant during second term of the year in Senior Secondary School (SSS). The administration was done by the researchers with the assistance of vice principals and this facilitated easier administration and retrieval of the instruments. Participants were informed about the purpose of the study. After the researchers had explained the instruction, participants completed the research instruments in their classes. The administration lasted for about an hour in each of the participating schools. Thereafter the instruments were retrieved.

Data analysis: The research questions were analyzed using multiple regression procedure to examine the predictive effect of the independent variables (self-efficacy, self-concept and peer influence) on the dependent measure (academic achievement).

RESULTS

Two issues were addressed in this study. One of the issues of concern was the extent to which the independent variables (self-efficacy, self-concept and peer influence) predict academic achievement among secondary school adolescents in transition. The second issue, which was of interest to the study was to find out relative contribution of the independent variables to the prediction of academic achievement of the students. The results of the data analysis that provided answers to the research questions raised are presented.

The Table 1 shows the result obtained from answering research question one. From the table, it is shown that the three independent variables gave a coefficient of multiple Regression (R) of 0.22, multiple R square (R^2) of 0.049, Adjusted R. Square of 0.033. Thus, the analysis shows that the independent variables as a block contributed 3.3% to the variance of academic achievement of students. Also indicated in the table is the analysis of variance of the multiple regression data. This produced an F. ratio of 3.053 and found to be significant at 0.05 Alpha level.

From the results displayed in Table 2, all the three independent variables (self-efficacy, self-concept and peer influence) relatively made significant contribution to the prediction of students' academic performance. The t observed for each of the variables are significant.

Table 1: Summary and ANOVA of the regression analysis of self-efficacy, self-concept and peer influence

Multiple R	=	0.222			
Multiple R ²	=	0.049			
Adjusted R ²	=	0.033			
Standard error of the estimate		0.011			
<u>Analysis of variance</u>					
Sources of variance	Sum of square	Df	Means square	F.OB	p-value
Regression	11437.646	5	2287.529	3.053	0.05
Residual	220305.5	924	749.338		
Total	231743.1	299			

Table 2: Relative contribution of the independent variables to the prediction

Variable description	Unstandardized coefficient		Standardized coefficient		T	p-value
	B	std error	beta			
Constant	15.753	27.045			0.58	NS
Self-efficacy	0.282	0.109	0.148		2.58	0.05
Self-concept	0.267	0.117	0.131		2.28	0.05
Peer influence	0.499	0.248	0.116		2.01	0.05

NS: Non-Significant

DISCUSSION

The results of the present study showed that self-efficacy, self-concept and peer-influence, are effective in predicting academic performance of senior secondary school one students. The analysis showed that self-efficacy, self-concept and peer-influence contributed 3.3% to the variance of academic performance of senior secondary school one students. Each of the independent variables also made significant contribution to the prediction of academic achievement.

The finding that self-efficacy is the most potent contributor to the prediction of students' academic performance is best understood when it is realised that students who are efficacious tend to adjust in all ramifications and tackle academic problems with vigour as to achieve high as the ultimate goal. This is in agreement with Torubeli (2004) who established that self-efficacy significantly predict academic achievement of secondary school students. Further, the study is in line with Zimmerman and Bandura (1994) that self-efficacy affects academic achievement directly and indirectly through its influence on goals.

The result that self-concept is a significant contributor to the prediction of academic performance could be understood from the point of view that an individual who sees himself/herself as being capable in performing a given task is likely to work hard to attain an acceptable level of performance in academics. The way a child views himself will no doubt affect the way he handles academic task. The results corroborate the view of Marsh *et al.* (1991) and Vispoel (1995) that positive self-concept is a mediating variable that facilitates the attainment of desired learning outcomes in academics. The influence of self-concept on academic performance is also in agreement with Byrne's (1984) self-achievement model, which showed that a learner's self-concept in a school subject is a primary determinant of academic performance in the subject.

From the findings, peer influence is also a potent predictor of academic performance of students. This finding is in support of Eccles and Midgley (1989) which established that the availability of peers who endorse achievement related behaviour may serve as a buffer from negative attitudes and school culture that is not conducive to the motivation of its students. The finding is also in agreement with Epstein (1993) who established a link between positive peer-influence and academic outcomes. The results thus confirmed that peer relationships are indisputably crucial to academic performance. The explanation for this result could be that students who participated in this study are members of peer groups that cherished academic success. Where this

is the case, they are likely to act in such a way that indicates that they too attach importance to academic excellence.

CONCLUSION

This study has a lot of practical implication for school guidance counselors, teachers and parents. It is vitally important that students moving from junior to senior secondary class one are exposed to counselling interventions geared towards enhancing self-efficacy, self-concept and positive peer relation. These attributes when developed could have salutary effects on students learning outcome and other challenges associated with transitions.

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