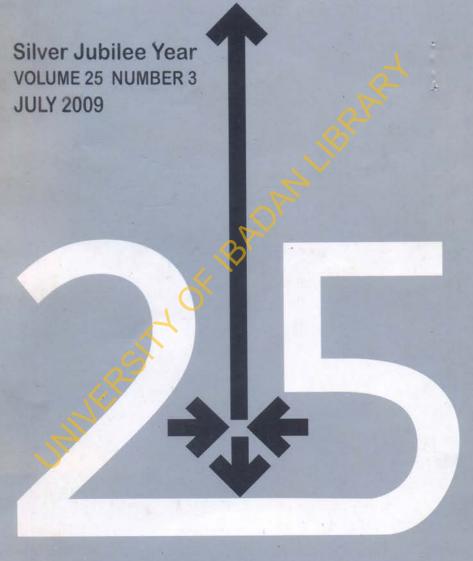# PERSPECTIVES IN EDUCATION

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PERSPECTIVES IN EDUCATION

CONTENTS

Emotional Intelligence and Academic Self-efficacy as Predictors of Academic Performance Among Senior Secondary School Students in Oyo State, Nigeria

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This study examined the predictive effects of emotional intelligence and academic self-efficacy on academic performance of students. The study adopted a survey research design of an ex-post facto type. Participants were 485 secondary school students randomly selected from ten co-educational secondary schools in Oyo State (male=258; female=226). The research instruments used for data collection were: Emotional Intelligence Behaviour Inventory (EQBI, a = 0.88), Academic Self-Efficacy Scale (ASES, a = 0.82), English Language Achievement Test (ELAT, a = .76) and Mathematics Achievement Test (MAT, a = .79) tested at the 0.05 level of significance. The findings indicated that emotional intelligence and academic self-efficacy were potent predictors of academic performance of students.

Introduction

Mass failure in public examination among secondary school students has long been a major source of concern to parents, teachers and other stakeholders in the education industry in Nigeria (Aremu, 2001). Ajayi (1987) described the poor academic performance in public examination as a symptom of a pervasive national failure that has been a clog in the wheel of education in Nigeria.

It is observed that every year, the results of Senior School Certificate Examination (SSCE) conducted by the West African Examination Council (WAEC) show that less than 25% of the total number of students who sat for the examination passed in the grades (A1-C6) which are the acceptable grades for admission into tertiary institutions. This, in essence, means that over 75% of the students had the grades (D7 – F9) (Ogundokun, 2007).

Since achievement plays an important role in the lives and activities of human beings, it is necessary to investigate issues that surround it and provide how best to obtain this desired achievement. In Nigeria, education is considered the most important instrument for change and national development. However, of all the problems facing Nigeria's education system, none is more agonizing and persistent as the poor academic performance of secondary school students at the external examinations conducted by the West African Examination Council (WAEC). Since recent studies like Aremu, Oluwole & Fayombo. (2001a), Aremu

& Ogbuagu, (2005) have shown that academic achievement leaves much to be desired, there is every need, therefore, for researchers to continue to explore this frontier of knowledge. Therefore, the purpose of this study was to investigate the relationship among emotional intelligence, academic self-efficacy and the academic performance of students.

Review of Related Literature

Academic performance is a measurable behavioural expectation from the scores earned by students in terms of the quality and quantity of students' work. It is influenced by a multitude of factors. For example, attitude leads to achievement (Schibeci & Riley, 1986), and aptitude is needed for successful performance (Schunk, 1991). Academic performance is a result of intellectual capability and motivation as well (Bandura, 1997). Based on findings from several studies, Bandura (1997) states that gender and attitude influence academic performance to some extent through their mediating effects on an individual's self-efficacy beliefs. Numerous studies (Andrew, 1998; Bandura, 1997; Chemers, Hu & Garcia, 2001; Greene & Miller, 1996; Miller, Greene, Montalvo, Ravindran & Nichols, 1996; Multon, Brown, & Lent, 1991; Pajares, 1996; Pintrich & DeGroot, 1990; Silver, Smith, & Greene, 2001) have found that self-efficacy is one of the influences on both general academic achievement and science achievement.

Although the research examining social behaviour focuses heavily on environmental factors related to achievement, some investigators have chosen the personality of the understanding child as a target for study. Aremu & Oluwole (2001), Adeyemo & Oluwole (2001), Odedele (2000) and Wuensch & Lao (1987) have submitted that the way and manner the child perceived himself could affect his academic performance.

Gaver and Goliez (1984) argue that underachievers, when compared to their more academically successful peers, were plagued by an assortment of personal deficits. They were highly anxious, self derogatory, likely to act defensively in the face of authority tend to feel rejected, and set unrealistic goals for themselves. Personality theorists such as Gaver & Goliez emphasize the individual characteristics of the underachiever. Obemeata (1991) & Gallagher (1993) show that using students' achievement alone as a measure for assessing the quality of schools was inadequate while Fabayo (1998) and Ogunniyi (1996) revealed that the low level of students' academic performance was related to the decline in the availability of teaching resources in schools. Ogunniyi (1996) also identified school-related factors as being associated with poor performance of students in Nigeria.

Emotional intelligence is defined as the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (Mayer & Salovey, 1997). The concept of emotional intelligence is an umbrella term that covers a broad spectrum of individual skills and disposition, usually referred to as soft skills or inter and intra-personal skills.

that are outside the traditional areas of specific knowledge, general intelligence and technical or professional skills. As indicated by Cooper (1997), emotions are useful for fostering stronger personal relations, and effective leadership skills. People who are skillful in emotional intelligence are able to regulate their own feelings, monitor and evaluate others' feelings (Salovey & Mayer; 1990); empathize with others (Kelley & Kaplan, 1993); and have excellent interpersonal skills (Goleman, 1998).

There has been considerable research into the influence of emotional maturity on work performance of people, the impact of the same on academic performance has not been that extensively delved into. There have indeed been some studies, but few of them have sought to provide evidence of empirical relationship between students' emotional intelligence and their scores in their studies.

Research indicating a close connection between intelligence and school performance is plethora. Gage & Berliner (1992) presented relevant research and summarized it by stating that "from the historical sketch given, one might guess that emotional intelligence correlates with school success, and one would be right" (p. 59). In contrast, a statistically significant relationship between EQ-i scores and performance at school did not reveal (Newsome, Day and Cantano, 2000), but Bar-On, (1997b), (2003); Parker, Creque, Barnhart, Majeski, Wood, Bond & Hogan, (2004); Swart, (1996) clearly indicated that such a relationship exists.

Self-efficacy refers to the confidence people have in their abilities that they will be successful at a given task (Bandura, 1997). Individuals who possess a high degree of self-efficacy are more likely to attempt challenging tasks, to persist longer at them, and to exert more effort in the process. If highly efficacious individuals fail, they attribute the outcome to a lack of effort or an adverse environment. When they succeed, they credit their achievement to their abilities. It is the perception that their abilities caused the achievement that affects the outcome rather than their actual abilities.

It is determined by enactive mastery experience, vicarious experience, verbal persuasion and physiological and emotional states. Of these factors, enactive mastery experience has the most influence. Self-efficacy beliefs vary between individuals, fluctuate under different circumstances and can change over time. Self-efficacy also contributes to performance.

A wealth of research findings indicates that self-efficacy correlates with achievement outcomes (Bandura, 1997; Pajares, 1996 and Schunk, 1995). Self-efficacy also correlates with indexes of self-regulation especially use of effective learning strategies. Self-efficacy, self-regulation, and cognitive strategy use are positively intercorrelated and predict achievement (Pintrich & 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, Parent & Larivee, 1991). Writing self-efficacy correlates positively with students' goals for course achievement, satisfaction with potential grades and actual achievement (Zimmerman & Bandura, 1994).

Self-efficacy has been linked to academic achievement (Bandura, 1977, 1994; Odedele, 2000). Self-efficacy is the people's belief about their capabilities to produce designated levels of performance that exercise influences over events that affect their lives. A strong sense of efficacy enhances human accomplishment and personal well being in many ways. People with high assurance capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. They set challenging goals and maintain good commitments to them. Thus, students with high efficacy are likely to have higher academic achievement compared with those with low self-efficacy who might doubt their capabilities, shy away from difficult tasks, give up quickly and finally drop out of school (Sewell, Palmo & Mann, 1981).

A growing body of literature supports the relationship between students' self-efficacy beliefs for academic tasks and their academic performance. Academic self-efficacy beliefs predict students' outcome but that this relationship is dependent on when efficacy beliefs are measured, the types of efficacy beliefs measured and the nature of the criteria used (Gore, 2006; Zajacova, Lynch & Espenshade, 2005).

It is expected that findings from this study might be of benefit to the guidance counsellors, teachers, researchers as well as curriculum planners when developing intervention programmes that would improve the emotional intelligence, self-efficacy and academic performance of students.

Research Questions

1. To what extent could the independent variables (emotional intelligence and academic self-efficacy) jointly contribute to the prediction of academic performance of the students?

2. What is the relative contribution of each of the independent variables to the prediction of academic performance of the students?

Methodology

Research Design

A survey research design that utilized an ex-post-facto research type was adopted for the study to explore the prediction of academic performance from emotional intelligence and academic self-efficacy of students.

Participants

The participants for this study consisted of four hundred and eighty-five (485) secondary school students randomly selected from 10 co-educational secondary schools in Oyo State. They were comprised of 259 (53.3%) males and 226 (46.7%) females whose age ranged between 12 and 18 years with a mean age of 15.89 years and a standard deviation of 1.23.

Measures

Demographic information was collected from participants regarding their age,

gender, schools and class by means of a demographic data form. The participants completed the two questionnaires: Emotional Intelligence Behaviour Inventory(EQBI) by Akinboye (2004), Student Efficacy Scale (SES) by Jinks and Morgan (1999) with achievement test on English Language Achievement Test (ELAT) and Mathematics Achievement Test (MAT).

EQBI (Akinboye, 2004) was used to measure the degree of the participants' emotional intelligence. The EQBI consists of 17 items which were answered on a five-point Likert scale ranging from 1= very much unable to 5 = very much able. Higher scores indicate higher levels of emotional intelligence. The reliability coefficient (Cronbach's alpha) for the scale was .88.

ASES (Jinks & Morgan, 1999) was used to measure the individuals' academic efficacy. The ASES consists of 34 items out of which 20 items were adopted by the researchers to which the participants indicated the extent of their agreement or otherwise with the items on the scale. The test adopted a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores indicate higher levels of the individual's rating for the 20 items that formed a single self-efficacy score. The reliability coefficient (Cronbach's alpha) for the scale was .82.

ELAT is a 20-item multiple choice English language achievement test with four options per item (A to D). Some of the test items were constructed by the researchers with the assistance of an expert in the field of English language while few of them were selected from the Past West African Examination Council (WAEC) questions based on the syllabus for SSS 2 classes.

All the test items were submitted to some other experts in the field of English for validation. After some revisions were made, the experts independently and unanimously recommended the use of the test. To establish the highest degree of reliability, the test was pre-tested on a small sample of (n = 50) randomly selected SSS 2 students. The internal consistency reliability coefficient (Cronbach's alpha) for the scale reported was .75. The test-retest reliability measure of the test with interval of three weeks was .76.

MAT: This test consists of 20 multiple-choice items with five options A-E. Some of the test items were constructed by the researchers with the assistance of an expert in the field while some were selected from past West African Examination Council (WAEC) questions based on the syllabus for SSS 2 classes. All the test items were submitted to some other experts in the field of Mathematics for validation. After some revisions were made, the experts independently and unanimously recommended the use of the test.

To establish the highest degree of reliability, the test was pre-tested on a small sample of (n = 50) randomly selected SSS 2 students. The internal consistency reliability coefficient (Cronbach's alpha) for the subscale reported was .77. The test-retest reliability measure of the test with interval of three weeks was .79.

Procedure

All the participants for the study were administered the four instruments viz:
Emotional Intelligence Behaviour Inventory, Academic Self-Efficacy Scale,
English Language Achievement Test and Mathematics Achievement Test in their
respective schools by the researchers. The researchers with the cooperation of
the school counsellor and teachers participated in the distribution and collection
of questionnaires from the respondents.

Data Analysis

The data collected were analysed using multiple regression analysis and Pearson's
Product Moment Correlation Coefficient in order to establish the relationship
between the independent variables (psychological variables) and the dependent
variable (academic performance). It should be noted that the students' scores in
English and Mathematics were transformed to z-scores before they were used for
computation.

Results

The results obtained in the analysis of data collected from the respondents are
presented in Table 1 below.

**Table 1. Means, Standard Deviations and Correlation Matrix of the Predictor
Variables (Emotional Intelligence, Academic Self-Efficacy, Gender, Age) and
the Criterion (dependent variable, Academic performance)
(N = 485)**

Variables	1	2	3	4	5
Academic Performance	1				
Emotional Intelligence	.714**	1			
Academic Self Efficacy	.622**	.904**	1		
Gender	-.007	.012	.008	1	
Age	-.119	.025	-.008	.035	1
Mean	82.62	38.43	39.65	1.34	15.89
S.D.	23.71	14.73	15.27	0.48	1.23

**Table 2. Regression summary table showing the joint effect of the independent
variables on the academic performance of students.**

R = .730
R square = .533
Adj. R square = .529
Std. Error = 16.279

Source	Ss	Df	MS	F	Sig.
Regression	144959.25	4	36239.813	136.751	.000
Residual	127202.94	480	265.006		
Total	272162.19	484			

Table 1 presents descriptive statistics of the variables in the study and the correlation matrix. The results in Table 1 show that there were linear correlations between the academic performance and emotional intelligence ($r = 0.714$, $p < 0.05$), academic self-efficacy ($r = 0.622$, $p < 0.05$) but not in age ($r = -.119$, not significant $p > 0.05$) and gender ($r = -.007$, $p > 0.05$)

Results in Table 2 show the multiple regression analysis performed in predicting academic performance from emotional intelligence, academic self-efficacy and the two demographic factors yielded a coefficient regression $R = 0.730$, multiple R square of 0.533 accounting for 53.3% of the variation in academic performance of the students. The table shows the F - ratio of the ANOVA as 136.751 significant at the 0.05 level. Thus, the results show that each of the independent variables (emotional intelligence, academic self-efficacy, gender and age) jointly predicted the academic performance of students.

Table 3. Relative contribution of the independent variables to academic performance of students

Variables	Unstandardised Coefficients B	Std. Error	Standardised Coefficients Beta	t	Sig.
Emotional intelligence	1.378	.118	.856	11.681	.000
Academic self-efficacy	-.239	.114	-.154	-2.097	.037
Gender	-.582	1.557	-.012	-.374	.709
Age	-2.721	.604	-.141	-4.508	.000
(Constant)	83.135	9.953		8.353	.000

Results in Table 3 show the relative contribution of each of the variables to the prediction of academic performance: emotional intelligence (Beta = 0.856, $t = 11.681$, $p < 0.05$), academic self-efficacy (Beta = -0.154, $t = -2.097$, $p < 0.05$), age (Beta = -0.141, $t = -4.508$, $p < 0.05$) but not in gender (Beta = - 0.012, $t = -0.374$, $p > 0.05$).

Discussion

Results of the present study revealed that emotional intelligence had significant positive correlation with academic performance. This finding is consistent with the earlier research findings as reported by Swart (1996) that the ability to manage one's emotions to be able to validate one's feelings and to solve problems of a personal and interpersonal nature are important for being academically successful. Adeyemo (2004) also found that there is significant relationship between levels of emotional intelligence and adjustment. It was also noted that high emotional intelligence translates to high mean score in adjustment. In contrast to a study conducted by Newsome, Day and Cantano (2000) that did not reveal a statistically significant relationship between EQ-i scores and performance at school. This indicated that EQ-i has a substantial impact on and can predict the nature of interpersonal interaction of who will perform well at school and who will not.

Academic self-efficacy was found to be significantly related to academic performance of the students. These results also support previously conducted studies (Andrew, 1998; Bandura. 1997; Chemers, Hu & Garcia, 2001; Greene & Miller, 1996, Miller, Greene, Montalvo, Ravindran & Nichols, 1996; Multon, Brown & Lent, 1991; Pajares, 1996; Pintrinch & DeGroot, 1990 and Silver, Smith & Greene, 2001) that link self-efficacy to academic achievement. Self-efficacy was significantly related to academic performance (Bandura, 1977 & 1994; Wilson, 1987; Odedele, 2000 and Salami 2004). This study's results failed to support previously conducted studies (Kennedy, 1986) that did not find a connection between self-efficacy and academic performance. This result contradicts Pintrich & DeGroot (1990) and Pintrich & Schrauben (1992) who found that self-efficacy and learning strategies have been found to be associated with academic performance. An explanation for this finding is that students who have strong self-efficacy and are persistent in their efforts at reading and studying for their examinations and have mastered all the topics taught in the class would have a high academic performance than those who have weak self-efficacy and apply little efforts at their studies.

The findings in this study indicated that gender did not significantly influence the academic performance of the students. These results support the findings of the previous researchers who found that no significant relationship existed between gender and academic performance (Witt-Rose, 2003). These results were somewhat surprising considering that existing research (DeBacker & Nelson, 1999, 2000 and Pintrinch & DeGroot, 1990) negate a connection between gender and achievement. Since these results can not link gender and performance together, differences may not exist between secondary school students in whether gender influences academic performance which means gender's influence may be non-existent in secondary school students.

Implications of the findings for counselling practice

This study has an implication for the work of the teachers and counsellors in our schools. It also provides an empirical basis for suggesting that educational and counselling psychologists could use the investigated personological factors (emotional intelligence and academic self-efficacy) as variables to predict the academic performance of the students. This is because it will provide students with tools to achieve long-term success, increase awareness of interdependence, personal responsibility for choices and consequential thinking, create a learning environment that arouses and sustain student curiosity and intrinsic motivation to build a context where high achievement is valuable and enjoyable.

The importance of self-efficacy's influence on academic performance and perseverance cannot be understated and because student self-efficacy and academic performance are connected, educators and school counsellors should identify students with low self-efficacy and then implement methods to raise low student self-efficacy levels.

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