EMOTIONAL INTELLIGENCE AND ACADEMIC ACHIEVEMENT: THE MODERATING INFLUENCE OF AGE, INTRINSIC AND EXTRINSIC MOTIVATION

by

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Abstract

The study examined the moderating influence of emotional intelligence, age and academic motivation on academic achievement of secondary school students. The study adopted a survey research design. The participants in the study were 1563 (male = 826, female = 737) secondary school students from Oyo state, Nigeria. Their age ranged between12 years and 17 years with mean age of 15.96 years. Two valid and reliable instruments were used to assess emotional intelligence and academic motivation while achievement tests on English Language and Mathematics were used as a measure of academic achievement. Descriptive statistics, Pearson's product moment correlation and hierarchical regression were used to analyse the data. The result revealed that Emotional Intelligence, Age and Academic Motivation were potent predictors mildly associated to academic achievement. The study has implications for the curriculum developers to integrate emotional intelligence into the school curriculum of secondary school. That teachers, counselling and educational psychologists should encourage the development of a strong achievement motivation in the students through the provision of appropriate counselling intervention programmes and enabling environment. By so doing, the academic performance of the students could be improved barring all other teaching-learning obstacles.

Keywords: Academic achievement, Emotional intelligence, Intrinsic, Extrinsic motivation, Age

Introduction

Education, no doubt, remains the most outstanding development priority area in the world today. The core purpose of education, unquestionably, is human development. Other things being equal, an educated person who is well or relevantly positioned in the socio-economic, cultural and political milieu is expected to be a valuable asset to the society than another individual who is illiterate and perhaps ignorant. This simple fact explains why researchers and scholars, all over the world, continue to do research into ways of improving human knowledge and development. Debates on education and human development more generally can hardly be a boring exercise. The socio-political, economic and technological developments, which bring about a high frequency of innovations and reforms, have all combined to make discussions or debates on education and human development trendy, exciting and unending.

However, achievement can be said to be the outcome of instruction. Osokoya (1998) also stated that achievement is the end product of a learning experience. Attaining a high level of academic performance is what every parent or guardian as well as teacher wishes for

their children, wards and students. Schools and teachers are generally graded qualitatively by achievement based on the performance of their students.

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 students, especially of secondary schools, at the external examinations conducted by the West African Examination Council (WAEC) and National Examination Council (NECO). And this has resulted in frustration, high drop-out rates and inability to gain admission into tertiary institutions. In spite of numerous efforts made by researchers, educators and policy makers to tackle this problem, academic performance of students does not seem to have improved.

Review of Related Literature

Academic achievement is generally regarded as the display of knowledge attained or skills developed in the school subject (Busari, 2000). It is the level of performance in school subjects as exhibited by an individual (Ireoegbu, 1992). In the school setting, it is referred to as the exhibition of knowledge attained or skills developed in school subjects. Test scores or marks assigned by teachers are indicators of this achievement. It is the school's evaluation of the pupils' class work as quantified on the basis of marks or grades (Adedipe, 1985). These marks assigned by school could either be high or low, which means that academic achievement, could either be good or bad.

Over the past decade, extensive research has been conducted on variables predictive of academic performance. Researchers who have sought to discover factors associated with high academic performance have examined an array of variables such as social behaviour (Taylor, Casten, Flickinger, Roberts, & Fulmore, 1994; Marchant, 1991); academic self-concept (Steele & Aronson, 1995; Wigfield & Karpathian, 1991); learning strategies (Covington, 1984); motivation (Deci & Ryan, 1985, 1992; Vallerand, Forteir, & Guay, 1995); Parenting Styles (Baumrind, 1991); and socio-economic status (Shultz, 1993).

Although the research examining social behaviour focuses heavily on environmental factors related to achievement, some investigator have chosen the personality of the child as a target for study. Aremu & Oluwole (2001), Adeyemo and 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, are plagued by an assortment of personal deficits. They are highly anxious, self-derogatory, likely to act defensively in the face of authority; tend to feel rejected, and set unrealistic goals for themselves.

Obemeata (1991) and Gallaghan (1993) show that using students' achievement alone as a measure for assessing the quality of schools is inadequate while Fabayo (1998) and Ogunniyi (1996) reveal that the low level of students' academic performance is related to the decline in the availability of teaching resources in schools. Ogunniyi (1996) also identifies school-related factors as being associated with poor performance of students in Nigeria.

Emotional intelligence is defined as the subset of social intelligence that involves the

ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions (Mayer & Salovey, 1990). Simply stated, emotional intelligence is a learned ability to identify, understand, experience and express human emotions in healthy and productive ways. Emotional experience and expression are unique to each teacher and student. No one else thinks, expresses feelings, and chooses behaviors and acts in the same way.

It is a confluence of developed abilities to (1) know and value self (2) build and maintain a variety of strong, productive and healthy relationships (3) get along and work well with others in achieving positive results; (4) and effectively deal with the pressures and demands of daily life and work. The development of emotional intelligence is an intentional, active and engaging process. Affective learning requires a person-centered process for teacher and student growth and development. When emotional intelligence skills are the focus of learning, teachers and students are building human development behaviors that are intricately related to the positive outcomes of achievement, goal achievement and personal well-being.

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 that demonstrate the predictive effects of emotional intelligence on academic achievement (Bar-On, 2003; Marquez, Martin & Bracket, 2006; Adeyemo, 2007) but just a few of them have sought to provide evidence of empirical relationship between students' emotional intelligence and their scores in their studies.

Recently, it can be observed that educational psychologists have begun to address what has historically been regarded as the soft side of individual differences. This includes mood, feelings and emotions in relation to academic achievement – a way in which students function and perform in accordance with the anticipated tasks at hand. Different competencies nest in emotional intelligence. As defined, emotional competence is a learned capability based on emotional intelligence that results in outstanding performance at work (Goleman, 1998b). However, what the majority of teachers may not know is that significant research indicates that "one of psychology's open secrets is the relative inability of grades, IQ or examination scores, despite their popular mystique, to predict unerringly who will succeed in life" (Goleman, 1996).

Research indicating a close connection between intelligence and school performance is plethora. The pattern of association observed between emotional intelligence and the academic achievement of the students is consistent with the position of Schutte, Malouff, Hall, Haggerty, Cooper, Golden, and Dornheim (1998); Tapia (1998); Ogundokun (2007); their positions point in the direction of significant positive relationship existing between emotional intelligence and academic achievement of students. But by contrast, Koifman (1998); Sutarso, Baggett, Sutarso and Tapia (1996) have shown no relationship between emotional intelligence and academic achievement.

Age is an independent (demographic) variable for this study, when referring to age in relationship with academic achievement; it is relation between students at one age and students at another age. Previous research has produced mixed results between age and performance (Ng & Feldman, 2008). According to Ng and Feldman (2008) there are three most cited quantitative reviews of this literature: one researcher found a moderate positive

relationship between age and performance (Waldman, 1986). McEyoy and Cascio (1989), on the other hand, found that age was largely unrelated to performance, while Sturman (2003) found that the age and performance relationship took an inverted-U shape.

Motivation has been defined as the process by which behavior is energized, directed and sustained in organizational settings (Steer & Porter, 1991). In the literature, there are a number of theories that provide different conceptualizations of the factors that drive this process. One early theory which examines different sources of motivation was proposed by deCharmes (1968). He suggests the dichotomy of intrinsic versus extrinsic motivation to characterize the different loci of causality. Intrinsically motivated behaviors (i.e., those behaviors that occur in the absence of external controls) are said to represent internal causality, whereas behaviors that are induced by external forces are said to represent external causality. Deci (1975) explores the effects of extrinsic rewards on intrinsic motivation and in doing so, sheds some light on the meaning of intrinsic motivation.

Intrinsic motivation has been defined as (a) participation in an activity purely out of curiosity, that is, for a need to know about something (b) the desire to engage in an activity purely for the sake of participating in and completing a task (c) the desire to contribute (Dev, 1997). Intrinsic motivation requires much persistence and effort put forth by an individual student. Students with intrinsic motivation would develop goals such as the goal to learn and the goal to achieve.

Extrinsic motivation refers to motives that are outside of and separate from the behaviours they cause; the motive for the behaviour is not inherent in or essential to the behaviour itself (Hoyenga & Hoyenga, 1984). If a student studies hard to do well on a test because a good grade will result in a brand new car, then the motive behind studying is not what it is intended to do: obtain knowledge. Studying information is a prerequisite to learning; however, it is often manipulated to lead toward other things such as money, acceptance, or power.

Academic motivation has been found to be significantly correlated with academic performance (Salami, 1998; Ogundokun, 2007). According to these studies, people with high achievement motivation are high academic achievers. They always set high levels of aspirations. Salami (2004) therefore reports that achievement motivation is a strong predictor of high academic performance and efficient schooling. Motivational theorists agree that academic motivation positively influences academic achievement. However, theorists have used different approaches such as expectancy – values theory, (Berndt & Miller, 1990), goal theory (Meece & Holt, 1993) and self-efficacy theory (Zimmerman & Pons, 1992) to examine the link between motivation and performance.

Today, most researchers take an interactionist view that assumes behaviour is a function of both the environment and personality (Mitchell & James, 1989). Specifically, these researchers are suggesting that a dynamic reciprocal interaction occurs between the person and the situation. Therefore, models that can explain how people are able to shift from situation to situation, often exhibiting different patterns of behaviour while still retaining a recognizable personality structure, need to be developed (House, Shane & Herold, 1996).

Evidence from these and related studies indicates that when tests and evaluations are used in controlling and motivating ways they have clearly negative effects on students' interest, motivation and engagement in school. Studies of actual classrooms added to these

findings by showing that when teachers were oriented toward being controlling and motivating in the way they generally relate to students, thus using evaluations and rewards in ways that are experienced by students as controlling or motivating, the students became less motivated and involved in school, relative to when teachers were more informationally oriented in the ways they related to students and used evaluations (Deci, Schwartz, Sheinman, & Ryan, 1981).

Frederick-Recascino (2003) therefore reports that there was a robust relationship between motivation and performance, in that the greater the number of student cancellations during a course of training, the lower the students' performance in actual flight training. Therefore, the inclusion and interaction relationships of the variables (i.e. emotional intelligence and achievement motivation) with academic performance is expanding the frontiers of knowledge among educational psychologists, guidance counsellors, teachers, researchers as well as curriculum planners when developing intervention programmes.

The objectives of the study

The present study sought to investigate the relationship between emotional intelligence and academic achievement among secondary school students. The moderating influence of age, intrinsic and extrinsic motivation was also part of the investigation.

Hypotheses

Taking into consideration, the set objectives of this study, it was hypothesized that emotional intelligence would have positive correlation with academic achievement (H1). It was further hypothesized that age, intrinsic and extrinsic motivation would respectively be potent predictors of academic achievement (H2, H3 and H4). Lastly, it was hypothesized that age, intrinsic and extrinsic motivation would moderate the relationship between emotional intelligence and academic achievement (H5).

Methodology

Research design

This study adopted a survey research design in order to explore the prediction of academic performance from emotional intelligence and academic motivation (intrinsic & extrinsic motivation) of students.

Participants

A total of 1563 senior secondary school students (males = 826, 55.85 per cent, females = 737, 47.15 per cent) randomly selected from Oyo state, Nigeria participated in the study. A total of 1600 was taken as the sample size for this study. A stratified random sampling technique with a ratio of 3:1 allocation was employed in selecting 1200 students from government-owned school and 400 from private-owned school. Twenty schools randomly sampled from the state, 60 students were randomly selected from each government-owned school while 20 students were randomly selected from each private-owned school. A total of 1200 students were randomly selected from government-owned schools while a total of 400 students were randomly selected from private-owned schools involved in the study. This gave a total of 1600 students. The students were randomly selected using dip hand

method for each type of school, their age ranged between 12 and 17 years with a mean age of 15.96 years and a standard deviation of 1.19. Of the 1600 questionnaires distributed, 37 were not properly filled and were discarded and were not used for the analysis; 1563 were used for analysis.

Measures

Demographic information was collected from participants regarding their age, gender, school type and class by means of a demographic data form. The participants completed the two questionnaires: Emotional Intelligence Behaviour Inventory (EQBI) by Akinboye (2004), Intrinsic and Extrinsic Motivation Scale (IEMS) by Lepper, Corpus and Iyengar (1997) with achievement test on English Language Achievement Test (ELAT) and Mathematics Achievement Test (MAT).

The Emotional Intelligence Behaviour Inventory (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.

Intrinsic and Extrinsic Motivation Scale (Lepper, Corpus & lyengar, 1997) was used assess the continuum of self-regulatory tendencies ranging from external to intrinsic but also focuses exclusively on autonomy which captures the dimension of extrinsic motivation. It consists of two sections, the first deals with the items and factor loadings for the intrinsic motivation scale with 17 items which are sub-divided into three. They are: challenge, curiosity and independent master. The second section consist of the items and factor loadings for the extrinsic motivation scale with 14 items which are also divided into sub-group of three; easy work, pleasing teacher, and dependence on teacher. The test adopted a five points Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores indicate higher levels of the individual's rating for the 17 items that formed a single intrinsic score, while higher scores indicate higher levels of the individual's rating for the 14 items that formed a single extrinsic score. The reliability coefficient (Cronbach's alpha) for the intrinsic and extrinsic motivation scale were .79 and .80 respectively.

English Language Achievement Test (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 Senior Secondary School (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 Senior Secondary School (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.

The Mathematics Achievement Test (MAT: This test was made up 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 Senior Secondary School (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 Senior Secondary School (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 namely: Emotional Intelligence Behaviour Inventory, Intrinsic and Extrinsic Motivation 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 were analysed using Pearson's Product Moment Correlation Coefficient and hierarchical regression analysis 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, based on the research questions are presented below.

Table 1: Mean, Standard Deviations and Correlation Matrix of the Predictor Variables (Emotional Intelligence, Intrinsic and Extrinsic Motivation, Age) and the criterion (dependent variable, Academic Achievement) (N = 1563)

Variables	1	2	3	4	5
1. Academic Achievement	1				
2. Emotional Intelligence	.736**	1			
3. Intrinsic Motivation	.666**	.928**	1		
4. Extrinsic Motivation	.581**	.847**	.767**	1	
5. Age	.144	.004	.031	.018	1
Mean	85.15	40.26	41.11	41.65	15.96
S.D.	23.55	13.14	12.99	13.26	1.19

Note: ** = $p < 0.05$ (2-tailed).

Table 1 summarizes the zero-order Pearson correlations between the academic achievement and other measures in the study. The results show that significant correlations were obtained between academic achievement and each of emotional intelligence (r = .736, $p < 0.05$), intrinsic motivation (r = .666, $p < 0.05$), extrinsic motivation (r = .581, $p < 0.05$) and age (r = .144, $p < 0.05$).

Table 2: Relative contribution of the independent variables to academic achievement of students

Variables	Unstandardised Coefficients Beta	Std. Error	Standardised Coefficients Beta	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	79.574	5.395		14.749	.000		
Emotional intelligence	1.540	.056	.859	27.491	.000	.283	3.538
Extrinsic Motivation	.255	.055	.144	4.604	.000	.283	3.539
Age	2.867	.329	.145	8.726	.000	.999	1.001

Taking emotional intelligence as moderating variable; academic achievement as endogenous variable and intrinsic motivation as well as extrinsic motivation and age as exogenous variables (Table 2): emotional intelligence alone turned out to be the strongest predictor of academic achievement (β=.859, t=27.491, p<0.05). It was followed by extrinsic motivation (β= .144, t= 4.604, p<0.05) and age respectively (β= .145, t= 8.726, p<0.05).

The multicollinearity assumption was evaluated during data analysis, using the tolerance statistic and the Variance Inflation Factor (VIF) to demonstrate the absence of multicollinearity among independent variables. Tolerance values typically range from 0 to 1 with 0.1 serving as a cutoff point (Mertler & Vannatta, 2005). Tolerance values less than 0.1 point to the presence of multicollinearity. VIF values greater than 10 indicate multicollinearity. From the results in Table 2, there was no evidence of multicollinearity in this study since tolerance and VIF values were the same for the predictor variables. However, intrinsic motivation has a small tolerance value (r= -.137) amid the combination of the dependent variables. Consequently, it was dropped from the equation. This means intrinsic motivation was not tolerated by the dependent variable.

Table 3: Hierarchical Regression Analyses predicting Academic Achievement from Emotional Intelligence, Intrinsic, Extrinsic Motivation and Age

Predictors	R	R^2	ΔR^2	ΔF	Df	β	T
Step 1	.736	.542	.542	1850.38*	1, 1561		
Emotional intelligence (EI)						.736	43.01*
Step 2	.756	.572	.029	35.74*	3, 1558		
Intrinsic motivation						.120	2.68*
Extrinsic motivation						.152	4.85*
Age						.142	8.51*
Step 3	.764	.584	.012	15.30*	3, 1555		
Interaction terms							
EI× Intrinsic motivation						.120	2.64*
EI×Extrinsic motivation						.152	4.85*
EI×Age						.142	8.52*

Note: N = 1563, EI = Emotional Intelligence, * = p<0.05 (2-tailed test)

A hierarchical regression analysis was performed whereby emotional intelligence, age, intrinsic and extrinsic motivation were regressed on academic achievement. Emotional intelligence alone turned out to be the strongest predictor of academic achievement accounting for 54.2% of the variance ($\Delta R^2 = .542$, $\Delta F_{(1, 1561)} = 1850.38$, $p < 0.05$). This result revealed that hypothesis 1 is confirmed (Table 3). Intrinsic, extrinsic motivation and age when added to emotional intelligence slightly increased the prediction to 57.2% of the variance ($\Delta R^2 = .029$, $\Delta F_{(3, 1558)} = 35.74$, $p < 0.05$). The results also demonstrated that the moderator variables significantly predicted academic achievement in the following order of magnitude: Extrinsic motivation ($\beta = .152$, $p < 0.05$), Age ($\beta = .142$, $p < 0.05$), Intrinsic motivation ($\beta = .120$, $p < 0.05$). These results revealed that hypotheses 2, 3 and 4 are confirmed as the entire moderator variables separately and significantly predicted academic achievement.

Entering all the three interaction terms as a block in step 3 accounted for a significant increment of explained variance in academic achievement ($\Delta R^2 = .012$, $\Delta F_{(3, 1555)} = 15.30$, $p < 0.05$). All interaction terms (EI×intrinsic motivation; EI×extrinsic motivation and EI×age) made independent significant contributions to academic achievement. Hypothesis 5 is therefore accepted. These results indicate that the relationship between emotional intelligence and academic achievement is influenced by intrinsic, extrinsic motivation and age. Students who have higher levels of emotional intelligence, intrinsic, extrinsic motivation and age reported higher academic achievement.

Discussion

Results of the present study revealed that emotional intelligence had a significant correlation with academic achievement. This finding is consistent with the earlier research findings of Schuttle et al. (1998) and Tapia (1998) who found a significant relationship between emotional intelligence and the Scholastic Aptitude Test. The effect of emotional intelligence on academic success is well documented in the literature (Bar-On, 2003; Farook, 2003; Marquez et al. 2006; Adeyemo, 2007). This result is easily explainable bearing in mind that emotional intelligence competences, such as ability to regulate one's feeling, problem solving, intrapersonal and interpersonal skills are highly germane to academic success. For instance, a student who is adept in emotional management could use such skill to ward off stress and anxiety associated with test-taking and examination. Furthermore, ability to display interpersonal skills may assist students to seek academic help from teachers, peers and resource persons.

Age was found to be a significant factor in learning. In most cases age is an index of maturity and maturity aids learning. This explanation was supported by the work of previous researchers (Waldman, 1986; Sturman, 2003; Naderi, Abdullah, Aizan, Sharir & Kumar, 2009) who found a significant moderate positive relationship between age and achievement.

Intrinsic motivation was found to be a significant contributor to the academic performance of the students. This lends a good credence to several studies which have shown positive correlations between intrinsic motivation and academic achievement (e.g. Gottfried, 1990; Henderlong & Lepper, 1997), suggesting that a decline in intrinsic motivation may signify a decline in achievement. Cordava and Lepper (1996); Deci and Ryan (1985) found a positive relationship between intrinsic motivation and performance both in class and on standardized tests. As intrinsic motivation theorists have long argued, being interested and engaged in the process of education will result in better learning and

achievement. It is certainly not surprising that children might perform better in school to the extent that they seek challenges, are curious or interested in their school work and desire to master tasks. Hence, we expected a positive correlation between intrinsic motivation and academic outcomes.

By contrast, the result disagrees with the findings of Barter (1981) that there is indeed a developmental decrease in intrinsic motivation, even when measured apart from extrinsic motivation. Previous studies have also revealed programme declines in children's commitment to their class work (Epstein & McPartland, 1976), their enjoyment of academic - but not non-academic - activities (Sansome & Morgan, 1992), their pursuit of learning goals (e.g. Anderman & Midgley, 1997; Midgley, Anderman & Hicks, 1995), their valuing of effort (e.g. Covington, 1984), their perceived competence (Bar-On, Handley & Fund, 2005), their ratings of the usefulness and importance of school (Wigfield, Eccles, Yoon, Havold, Arbreton, Freedman-Doan, & Blumenfield, 1997), and their mastery behaviours in the face of challenging tasks, (Rholes, Blackwell, Jordan, & Walters, 1980). Similarly Gottfried (1985. 1990) also revealed a developmental decrease in overall academic intrinsic motivation, with particularly marked decreases in the critical content areas of math and science (Gottfried, Fleming, & Gottfried, 1998). This notwithstanding, intrinsic motivation was found to be a potent predictor of academic achievement among adolescents in this study. This also corroborates the findings of Ames (1992). It is certainly plausible that children who do feel capable of taking on challenges, and like to master the material independently as a result of receiving high marks and positive feedback perform better in their academic endeavour.

The findings of this study indicate that a significant correlation was found between extrinsic motivation and academic performance of the students. Hence, this hypothesis was rejected. This result is in consonance with prior studies (Barron & Harackiewicz, 2001; Elliot & McGregor, 2001; Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002) who found that children who are particularly focused on the extrinsic consequences of their behaviours will do partiality well on objective indicators of performance. On one hand, Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh (1987); Ginsburg & Bronstein (1993), found that children who reported a desire for easy work and aim to please their teachers, performed worse on both standardized tests and in regular classroom assessments.

The possible explanation for the result may not be unconnected with a functional perspective. It may be quite adaptive for students to seek out activities that they find inherently pleasurable, while simultaneously paying attention to the extrinsic consequences of those activities in any specific context. Seeking only immediate enjoyment with no attention to external contingencies and constraints may substantially reduce a student's future outcomes and opportunities. Conversely, attending only to extrinsic constraints and incentives can substantially undermine intrinsic interest and the enjoyment that can come from learning itself. It is also possible that children who do poorly in school are more often subjected to lectures from teachers and parents about how and why they should be doing better, thus shifting their attention to more external sources of motivation.

Implications of the findings for educational and counselling practice

This study has implications for the work of the teachers, counselling and educational psychologists, researchers as well as curriculum planners. They need to develop a greater awareness and understanding of the various interaction involving variables that predict the

academic performance of students.

For the fact that emotional intelligence is a strong predictor of academic achievement, it is necessary for the curriculum developers to integrate emotional intelligence into the school curriculum of secondary school.

As age has been found to be a significant factor in learning, there is the need for curriculum developers and teachers to take the age of the learners into account when developing curriculum and designing instruction.

Based on the findings from this study, it is recommended that teachers and counselling psychologists should encourage the development of a strong achievement motivation in the students through the provision of appropriate counselling intervention programmes and enabling environment. By so doing, the academic performance of the students could be improved barring all other teaching-learning obstacles.

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