

The Relationship Between Emotion Intelligence and Examination Anxiety Behaviour Among Students in Public Senior Secondary School in Delta State

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ABSTRACT

This study examined the relationship between emotional intelligence, and examination anxiety behaviour among students in public senior secondary school II (SS2) in Delta State. Two research questions and two hypotheses guided the study. Related literature was reviewed. The study adopted an ex post facto research design and correlation method. The population of the study was 40522 comprised of students in public senior secondary school II in Delta State. A sample of 1,070 students was used. A questionnaire was the instrument for data collection. The questionnaire was validated through expert judgment and factor analysis. The instrument had a Cronbach alpha reliability index of 0.73 for the metacognitive awareness scale, 0.65 for the emotional intelligence scale, and 0.71 for the examination anxiety behavior scale. Researchers administered the questionnaire to the sampled students. Pearson Product Moment Correlation and Coefficient Determination were used to answer the research questions while regression statistics and extension by Andrew Hays were used to test the hypotheses at 0.05 level of significance. The findings showed that: there was a significant relationship between emotional intelligence and examination anxiety behaviour, and there was a mediating impact of metacognition in the relationship between emotional intelligence and examination anxiety behaviour. This study concludes that metacognition is a mediator between emotional intelligence and examination anxiety behavior. Recommendations were that a School counsellor/psychologist should be employed to help students develop positive emotions and recommendations were made among others that school Counsellors/Psychologists should be employed to help students develop positive emotions.

Keywords: Emotional Intelligence, Metacognition, Examination Anxiety Behaviour

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INTRODUCTION

The examination anxiety behaviour has been revealed to be one of the problems encountered by many Nigerian adolescent students (Olanrevaju & Adeoye, 2018), the prolonged examination anxiety behaviour has negative impact to the physical and psychological well-being of the students

The curiosity about the outcome of the examination has generated a lot of negative reactions towards the examination among students in secondary school to the extent some of the students would look for a means to avoid examination. Most time, students failed examination not because they are not intelligence nor did not study or plan for the examination, but students failed examination because examination anxiety behaviour has dominated which embedded from being disorganized, worried, feverish, and lack of concentration during an examination.

The problem of examination anxiety behaviour is very alarming in the present-day educational system. In most cases, examination anxiety makes students to be disobedient to the rules and regulation of the examination.

Asghari et. al (2013) noted that the most prevalent psychological issues among students in an academic setting are anxiety associated with exams, exceeding expectations, and pressure at school may be one of the most common concerns made by pupils, especially among teenagers. In a nutshell, Abbasi and Ghosh (2020) defined examination anxiety behaviour as unpredictable worries about the consequence regarding performance, fear of being assessed, and apprehension about the result. Kaur and Kumaran (2016) defined examination anxiety as "a set of physiological, phenomenological and behavioural responses that accompany concern over possible negative consequences or failure in an exam or similar evaluative situations. Some studies revealed that examination anxiety behaviour, when dominated in students' minds impaired their performance (Mittu & Nandana, 2020; Hamzah, Mat, Bhagat & Mahyiddin, 2018; Brand & Schoonheini, 2009). It could be ascertained that the problem of examination anxiety behaviour has a negative effects on students and the school in general. Students with examination anxiety behaviour might be a victim of poor academic performance, disobedient to school rules and regulation, avoidance of school or truancy, school dropout and examination malpractice.

The question is what could account for the students' examination anxiety behaviour? Therefore, this study will examine the relationship between emotional intelligence and examination anxiety behaviour. Also, this study is aimed to examine the mediating impact of metacognition in the relationship between emotional intelligence and examination anxiety behaviour among students in public senior secondary school II (SS2) in Delta State, Nigeria.

Research Questions

The following research question guided the study.

1. What is the relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State?
2. What is the mediating impact of metacognition in the relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State?

Hypotheses

1. There is no significant relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State.
2. There is no mediating impact of metacognition in the relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State.

Research Objectives

The purpose of this study is to examine the relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State. Specifically, the objectives are to:

1. investigate the relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State, and
2. ascertain mediating impact of metacognition in the relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State.

Significance of the Study

The findings of this study would be useful to Students, Teachers, Educational Psychologists/Guidance Counsellors, School Administrators, Examination bodies, and Researchers.

It would help the students to develop self-awareness and the skill needed to prepare for exams such as emotional, skills, and metacognitive skills. This would enable them to overcome examination anxiety behaviour.

The findings of this study will help the teachers to understand that anxiety is inevitable and examination can trigger anxiety even if the students may have prepared for the examination. With this knowledge, the teacher would make the examination hall conducive in the sense that no threat should be found in the examination environment.

The findings of this study will be useful to Educational Psychologists and Guidance Counsellors. This is because the data and information from this study will enable psychologists in assisting the students with the examination of anxiety behavior and equip them with emotional skills and metacognitive skills. This will in turn help the students to reduce excessive responses of examination anxiety behaviour.

RELATED WORKS

The classical conditioning theory by Ivan Pavlov (1897) sees examination anxiety behaviour as a form of reflexes or nervous responses in the students which manifest as headache, fear, depression, or moodiness due to the nature of examination. This occurred because students have associate examination with fear of failure.

Therefore, the way forward to resolve the problem of examination anxiety behaviour among school children

required to identify what other studies have done and what they left undone. It necessary to revive previous studies conducted by others researchers. Thus, the related studies on emotional intelligence and examination anxiety behaviour need to be considered in line with impact of metacognition.

Emotional intelligence is widely applied to solve academic and organizational problems. Emotional Intelligence is the ability of the individual to think rationally, manage one emotion, and understand his /her feelings and others around him/her effectively deal with his environment. Emotional intelligence was defined by Chamundeswari (2013) as the capacity to perceive emotions, assimilate emotion-related feelings, understand the information about those emotions, and manage them. Okorie (2020) sees Emotional Intelligence as the ability to perceive and generate emotion in oneself and others. Also, Saud (2019) defined emotional intelligence as the ability to regulate and control one's own emotions, and that of others, and to differentiate between them. AL-Qadri and Zhao (2021) defined emotional Intelligence as the ability to process information related to one's emotions and the ability to use the information as a guide for understanding and acting.

Meher, et al. (2021) opined that emotional intelligence plays a vital role in accomplishing the determined objectives of mankind and promoting learning outcomes. According to Kalapriya and Anuradha (2015), emotional Intelligence is a cross-section of interrelated emotional and social competencies, skills, and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands and pressures. Suleman et. al. (2020) examined the relationship between emotional intelligence and job satisfaction among secondary school heads in Khyber Pakhtunkhwa. One of the findings showed that there was a moderate positive correlation between emotional intelligence and job satisfaction. Meher, et al. (2021) investigated the emotional intelligence scores of four-year integrated B.Ed. The study reported a significant positive correlation between emotional intelligence and the academic performance of students. Kalapriya and Anuradha (2015) examine emotional intelligence and academic achievement among adolescents. The results of the study indicated a significant difference between Emotional Intelligence and Academic Achievement among Adolescents. Ahmad and Aziz (2019) probed into the correlation between emotional intelligence and exam anxiety of secondary school students by measuring existing levels of both variables. The study reveals that exam anxiety has a weak negative significant correlation with emotional intelligence.

Furthermore, metacognition was first defined by American Psychologist John Flavell (1977). Flavell defined metacognition as knowledge concerning one's cognitive processes or thinking processes. Şchiopu (2018) stated that the Flavell concept of metacognition means systematizing knowledge and regulating cognitive activities. It is the capacity to represent and access our cognitive processes, understanding and improving how we learn and remember. Our performance in academics greatly influences how students utilize these skills. Such as planning, evaluating, monitoring, and reflection, etc., metacognition enables one to keep using methods that have previously worked, and therefore, avoid strategies that haven't worked (O'Leary & Sloutsky, 2018).

Tajrishi et. al (2011) described metacognition as the stable knowledge or beliefs about one's cognitive system and knowledge about factors that affect the functioning of the system, the regulation, and awareness of thought and memory. Shea (2019) described metacognition in terms of how students judge how they have learned the material they have been asked to memorize. How do students determine whether they have learned some material well to take an examination? He further explained that with metacognition, students will think about their feelings, determine their level of confidence, and logically dispute irrational or self-talk that might deteriorate their examination. This implies that metacognition plays an important role in human consciousness. Tamannaifar and Abdolmaleki (2017) investigate the association of metacognitive beliefs and perfectionism with test anxiety among students. The study indicated that metacognitive beliefs and perfectionism are predictors of test anxiety.

Isa (2016) investigate the predicting effect of high school students' metacognitive skills, exam anxiety, and academic success levels upon their psychological well-being in a provincial center with a medium-scale population in the eastern Anatolian region. The result showed that there was a negative significant relationship between exam anxiety and metacognitive skills, and a positive significant relationship between metacognitive skills and academic success average skills having the aforementioned abilities related to learning strategies could create an increasing effect upon their academic success decreasing their exam anxiety. Wisdom and Emmanuel (2015) investigated the relationship among chemistry students' metacognition, attitude, and academic achievement in secondary schools in Port Harcourt's local government area, Rivers State, Nigeria. Results showed that both metacognition and attitude correlate significantly with academic achievement. Ebebuwa-Okobh and Joseph (2021) examined self-efficacy, meta-cognition and academic performance in mathematics among students in public SS2 in Delta North Senatorial District. The findings revealed a significant relationship between students' meta-cognitive skills and mathematics performance.

From the studies reviewed, it was observed that no study was carried out on the mediating impact of metacognition in the relationship between emotional intelligence and examination anxiety behaviour.

METHODS

This study adopts an *ex-post factor research design* and a correlational method. The population of this study was 40,522 comprising of all students in public senior secondary school II (SS2) in Delta State, Nigeria. A sample size of 1,070 SS2 students was used in this study. simple random techniques was employed in this study. The instrument for this study is a questionnaire. The questionnaire includes: Emotional Intelligence Scale (EIS), Metacognitive Awareness Scale (MAS), and Examination Anxiety behavior Scale (EABS). These scales were validated through expert judgment and factor analysis. The instruments had a Cronbach alpha index for examination anxiety behaviour scale of 0.71, emotional intelligence scale of 0.65, and metacognitive scale of 0.73. This showed that the three (3) instruments have good measure of internal consistency. The researchers administered the questionnaire to the sampled students. Pearson Product Moment Correlation and Coefficient Determination were used to answer research questions, while regression statistics and extension by Andrew Hays were used to test the hypotheses at a 0.05 level of significance.

RESULT AND DISCUSSION

Research question one: What is the relationship between emotional intelligence and examination anxiety among students in public SS2 in Delta State?

Hypothesis one: There is no significant relationship between emotional intelligence examination anxiety among students in public SS2 in Delta State.

Table 1: simple correlation and regression analysis of the relationship between emotional intelligence (EI) and examination anxiety behaviour (EAB) among students in public SS2 in Delta State.

Model	M	SD	r	r ²	r ² (adjusted)	SE	Decision
EAB	32.19	6.28	.09	.00	.00	6.26	low Positive Relationship
EI	27.94	4.49					

ANOVA					
Model	SS	df	MS	F	Sig
Regression	354.343	1	354.343	9.047	.003
Residual	43359.270	1107	39.168		
Total	43713,612	1108			

Variable in the Equation					
Model	Unstandardized coefficient	Standardized coefficient	t	Sig	
	B	SEB	BETA		
Constant	35.700	1.183		30.188	.000
EI	-.126	.042	-.090	-3.008	.003

Table 1 revealed a low positive linear relationship between emotional intelligence and examination anxiety behaviour. The computed correlation using Pearson Product Moment Correlation output was: (r=.09), (r² = .00).

Testing the hypothesis at 0.05 level of significance. The F = (9.047: P< 0.05). The null hypothesis which states that there is no significant relationship between emotional intelligence and examination anxiety behaviour was rejected. This is because the P-value of .003 is less than the alpha level of 0.05. Therefore, there was a statistically significant relationship between emotional intelligence and examination behaviour in the regression model. The beta weight of (β= -.090) showed the amount contributed by emotional intelligence on examination anxiety behavior.

Research Question 2: What is the mediating impact of metacognition in the relationship among emotional intelligence, social intelligence, and examination anxiety among students in public SS2 in Delta State?

Hypothesis 2: There is no significant mediating impact of metacognition in the relationship between emotional intelligence and examination anxiety among students in public SS2 in Delta State.

Table 2: Multiple correlations and Multiple Regression Analysis of Mediating Impact of metacognition in the Relationship between Emotional Intelligence and Examination Anxiety.

Relationship	R	R ²	Total Effect	Direct Effect	Indirect Effect	Confidence Interval Lower Limit	Upper Limit	t	Decision
EI -> Macog->EAB	.58	.34	-.13 (.0027)	-.22 (.0000)	.09	.03	.17	-4.39	Significant

Model: 4,

Y: Dependent variable of Examination Anxiety Behaviour (AEB)

X: Independent Variable of Emotional Intelligence (EI),

M: Mediator Variable of Metacognition (Macog),

Sample Size: 1,070

The table 2 showed the mediating role of metacognition in the relationship between emotional intelligence and examination anxiety behaviour. The $R = .58$ ($R^2 = .34$) showed the relationship among the variables.

Testing the hypothesis at 0.05 level of significance using PROCESS Macro by Andrew Hayes. The result revealed a significant indirect effect of the impact of metacognition on examination anxiety behaviour ($b = .098$, $t = -4.39$), rejecting the hypothesis. Furthermore, the direct effect of emotional intelligence on examination anxiety in the presence of a mediator of metacognition was found significant ($b = -.22$, $p \leq .05$). Therefore, metacognition mediated the relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State.

Discussion of findings

The discussion was organized under below

Relationship between Emotional Intelligence and Examination Anxiety Behaviour

The result in hypothesis 1 showed that there was a statistically significant relationship between emotional intelligence and examination anxiety behaviour among students in public SS2 in Delta State. The study believes that emotional intelligence can reduce examination anxiety behaviour when a student's emotional intelligence is high. As a result of this, students' emotional intelligence needs to be optimal maximum to enable them to overcome the negative feelings of examination. This idea was also supported by Sajjad et. al (2017) that emotional intelligence can be supportive in managing library anxiety among students leading to better academic performance. Though, this finding disagreed with the study of Ahmad and Aziz (2019) which revealed that exam anxiety has a weak negative significant correlation with emotional intelligence. Kalapriya and Anuradha's (2015) study indicated a significant difference between Emotional Intelligence and Academic Achievement among Adolescents. The reason for the differences with previous findings could be a result of environmental factors and the learning condition of the students. Though, some previous studies supported this present finding.

The Mediating Impact of Metacognition in the Relationship between Emotional Intelligence and Examination Anxiety Behaviour

The result in hypothesis 2 revealed that there was a statistical mediating role of metacognition in the relationship between emotional intelligence and examination anxiety behaviour. This implied that when the students demonstrate good metacognitive skills, it will have a positive effect on their emotional intelligence which will directly decrease the level of examination anxiety behaviour of the students. Furthermore, this finding is in line with Ebebuwa-Okobh and Joseph (2021) who revealed a significant relationship between students' metacognitive skills and mathematics performance. This finding agreed with İsa (2016) who specified that there was a negative significant relationship between exam anxiety and metacognitive skills. This finding also agreed with Wisdom and Emmanuel (2015) whose results showed that both metacognition and attitude correlate significantly with academic achievement. Metacognition brings students to their consciousness where they can realize their learning skills and use appropriate cognitive skills that have been found worthy to solve their learning difficulties. This would help the students reduce examination anxiety behaviour.

Conclusion and Recommendation

This study concludes that emotional intelligence correlated with examination anxiety behaviour and metacognition mediates between emotional intelligence and examination anxiety behaviour. Therefore, the following recommendations were made that:

1. School counsellors/psychologists should be employed to help students develop positive emotions.
2. Students should be thought how to engage metacognitive skills during learning.
3. There should be regular notice about examination participation. This will enable students to adequately prepare for an examination. Thereby reducing fear of examination
4. The examination hall should be conducive, in the sense that no threat should be found in the examination hall.

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