

# DIFFERENTIAL EFFECTIVENESS OF RATIONAL BEHAVIOUR THERAPY AND ENHANCED THINKING SKILL ON PRIMARY SCHOOL PUPILS' EXAMINATION ANXIETY

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## ABSTRACT

Test anxiety can easily make pupils distracted during an examination and making them having trouble in organizing or recalling information. And as such, they end up failing a test when they have the required mental capacity to pass such test. Thus, this study examined the effect of Rational Emotive Behavior Therapy (REBT) and Enhance Thing Skills (ETS) to remedy the effect of examination anxiety among students at Primary Schools within the Ikenne local government of Ogun state, Nigeria. The population for the study were public primary school pupils in Ikenne LGA of Ogun State. Stratified random sampling technique was used to select two schools while purposive sampling was used to select the participants. The study adopted a pre-test and post-test quasi-experimental research design consisting of two treatment groups. Sarason's Reaction to Test Anxiety Scale and Rotters' Locus of Control Scale were the instrument used for data collection. A total number of two hundred and seventy-six pupils participated in the study. Analysis of covariance (ANCOVA) was used to analyse the seven hypotheses formulated at 0.05 level of significance. The results revealed a significant difference in the effect of Rational Emotive Behaviour Therapy (REBT) and Enhanced Thinking Skills (ETS) in reducing examination anxiety among primary school pupils ( $F_{(1,273)} = 10.031$ ;  $p = .009 < 0.05$ ). It was concluded that the treatment packages could be used as veritable tools in equipping students with necessary skills in dealing with too much anxiety during examination that may interfere with their concentration on the test, thus enhancing student performance in examination.

**Key words:** Enhance Thing Skills, examination anxiety, Rational Emotive Behavior Therapy, primary school, pupils

## INTRODUCTION

Education has been described as both a liberation and development agent and has contributed to transforming humanity to be useful to himself, his generation and beyond. True Education develops an individual to be physically, mentally, morally, spiritually, and emotionally balanced to impact his environment and the society (White, 2000). However, in every school learning, children are tested at various times during the schooling period as teachers use tests to identify students with needed characteristics for promotion or placement in different grades. Test results are used by schoolteachers to judge their students' progress, by university or college admission's officer as indicator for selecting or rejecting applicants, by personnel experts as basis for hiring employees or promoting executives. Due to the importance of test results, testing could generate some anxiety in the learners.

Also, learners' educational outcomes and achievements are evaluated and graded using examinations. Testing is common in everyday life, from school content-specific tests (that is, class tests and national examinations) to tests taken to move up in jobs status, thus adding a

great deal of pressure to test achievement and grades. Hence, in many cases, this leads many people to become anxious when presented with examinations (Huberty, 2010; Mukolwe, 2015; Olanrewaju, 2019). This form of anxiety is known as test or examination anxiety.

Tests scores of secondary school students are used to admit them into colleges, universities and as a basis for employment (Ojediran & Oludipe, 2016). This makes students develop test anxiety due to the seriousness with which the test is regarded and perceived. Test is used to evaluate students' ability to recall, memorize and regurgitate. Test can be defined as any method for measuring ability, knowledge and performance in a given area (Brown (2017, Richards, 2016). In practical terms, tests yield scores that mirror attributes or characteristics of individuals (Allan, 2015). In the context of this study, test is defined as the evaluation of student's ability and mastery of knowledge of the subject matter.

Test anxiety is seen as a situation-specific trait that refers to the anxiety states and worry conditions experienced during examinations (Spielberger & Sarason, 1989). The level of anxiety can fluctuate over time in response to both internal and external stimulation. Observable behaviors of anxiety can be noticed during the completion process of a quiz, a test or an examination. Some of those behaviors might include perspiration, excessive movement and questioning of instructions (Freidman & Bendas-Jacob, 1997; Mukolwe, 2015).

These anxiety related behaviors during testing conditions may in one way or another affect academic performance of students. A minimal amount of anxiety is needed to mobilize human beings to respond rapidly and efficiently; but when in excess, it may foster poor response and even inhibit response (Simpson, Parker & Harrison, 1995). Hence, too much anxiety during examination may interfere with students' concentration on the test, thus lowering their performance in examination (Cassady & Johnson, 2002).

In order to reduce these maladaptive problems, series of treatment options are also available including exposure therapy, self-statement monitoring technique, systematic desensitization, self-management technique, flooding, aversion therapy, self-instruction technique modeling skills, solution-focused brief therapy (SFBT), stress-inoculation skills, Person-centered therapy, and skill-deficit method (Anyamene & Nwaimo, 2021). Cassady and Johnson (2010) state that one or a combination of these may be recommended according to the situation and intensity. Of particular interest to this study is the use of relative effectiveness of rational emotive behaviour therapy and enhanced thinking skills in self-management and self-instruction techniques in reducing test anxiety among secondary school students.

Rational Emotive Behaviour Therapy (REBT) is the first independent variable of this study. Rational emotive behaviour therapy is the original form of Cognitive Behaviour Therapy (CBT) created by Albert Ellis in the late 1950's. REBT is considered the first modern cognitively based therapy used for the treatment of school-age children and adolescent misbehaviour. Rational Emotive Behaviour Therapy is based on the assumption that cognition, emotion, and behaviour are not separate human functions but are, instead, intrinsically, integrated and holistic (Ayodele, 2014; Bello, 2018). REBT emphasizes behavioural change and self-regulation along with the examination and possible modification of thoughts, beliefs, feelings, and expectations (Webb & Myrick, 2012).

Researchers have shown that REBT has been used with recorded success among adolescents in altering negative behaviours such as examination anxiety and fear associated with speech,

feeling of inferiority, low self-esteem, and many more (Ayodele, 2014; Bello, 2018; Egbochukwu 1998; Froggatt, 2005; Ladipo, 2000; Osiki, 1999). As described by Knaus (2008), Rational Emotive Behaviour education (REBE) is a positive, preventive, interventionist psychological educational programme that teaches rational critical thinking skills and effective psychological problem-solving methods. These are skills that students can apply throughout their lives to cope effectively with the inevitable changes and challenges they meet. REBE provides a framework for teaching students reasoning skills and for applying scientific ways of knowing and reacting to ordinary and extraordinary life challenges. It creates an opportunity for students to refine and improve their sense of perspective, self-concept, frustration tolerance, and personal problem-solving abilities (Knaus, 2008).

REBE has proved its efficacy in counseling adolescents, students; youths in general, both gifted students and students with special needs (intellectual deficiency, disability, orphans, and juvenile delinquency). REBE program consists of modular sequences of psychological education intended to develop students' cognitive and behavioral competencies that would enable them to become more productive and happier. Thus, it is the belief of the researcher that using this technique could help the students overcome examination anxiety (Knaus, 2008).

Another important emotional technique is the Enhanced Thinking Skill (ETS), which could be effective cognitive ability for primary schools' pupils. It is a cognitive-behavioral skills program and a treatment which targets a range of topics such as impulse control, flexible thinking, values and moral reasoning, interpersonal problem solving, social perspective taking, and critical reasoning (Ayodele, 2014). Thinking skill is one of the educational concepts.

Modern educational systems seek to activate their role in the educational process, as a skill of higher order thinking skills, for students to create an efficient interaction with the environment surrounding them. Critical thinking skills encompass meaning ranging from "recognizing a need to an alteration in the conditions; it also necessitates alteration not just in thoughts and convictions, but also in procedures. It necessitates a practical application of alternating thinking and work. It is considered a way in which individuals could be molded to make preferences in their academic and professional lives, and the community as a whole" (Griffin, 1995). Doyle (2013) also carried out a study on the usage of ETS programme in improving antisocial attitudes, anger regulation and social problem-solving skills in offenders effectively. This technique has not been applied in treating primary school students regarding examination anxiety, which was the reason this study.

This research study is aimed at finding the effect of Rational Emotive Behavior Therapy (REBT) and Enhance Thing Skills (ETS) to remedy the effect of examination anxiety among students at Primary Schools within the Ikenne local government of Ogun state, Nigeria.

## **Hypotheses**

H<sub>1</sub> There is a significant difference in the effect of Rational Emotive Behaviour Therapy (REBT) and Enhanced Thinking Skills (ETS) in reducing examination anxiety among primary school pupils.

## MATERIALS AND METHODS

**Research Design:** The research adopted the pre-test, post-test, quasi experimental design.

**Population:** The population for this study were 731 primary school pupils in two selected public primary schools in Ikenne Local Government Area of Ogun State.

**Sample and Sampling:** Two hundred and ninety pupils were selected from the two schools using Leslie (1965). The participants for this research were drawn among public primary school 4, 5 and 6 students in Ikenne Local Government Area of Ogun State. Proportional stratified random sampling method was used for the selection of 145 students from 2 schools as shown in the table below.

**Table 1: Selected Schools, Class and their Sample Size**

Schools	Pry 4	Pry 5	Pry 6	Total
Wesley Primary School, Ogere Remo	$48 \times 145/160 = 43.5$ (43)	$57 \times 145/160 = 51.7$ (52)	$55 \times 145/160 = 49.8$ (50)	145
Saint Saviour's Anglican Primary School II, Ikenne Remo	$52 \times 145/171 = 44.1$ (44)	$61 \times 145/171 = 51.7$ (52)	$58 \times 145/171 = 49.2$ (49)	145
<b>Total</b>	<b>87</b>	<b>104</b>	<b>99</b>	<b>290</b>

The participating pupils were randomly selected from each class and school. The participants were assigned to treatment groups A and B through simple ballot. It should be noted, however, that this study had no control group because it aimed to see which of the treatment packages would be more effective in reducing examination anxiety among primary school pupils.

**Instrumentation:** Two validated instruments were used. These are:

**Sarason's Reaction to Test Anxiety Scale:** The scale contains 40 items scored on a four-point modified Likert type scale ranging from "not typical of me" (1) to "very typical of me" (4). It has four subscales namely, tension (10 items); worry (10 items); test-irrelevant thinking (10 items); and bodily symptoms (10 items).

**Locus of Control Scale:** The scale measurement consisted of "yes" or "no" answers, and the total score ranged from 0 (internal locus of control) to 40 (external locus of control). The higher scores reflects external locus of control, the lower scores reflects internal locus of control.

**Procedure of Research:** This study will be carried out in three major phases namely:

Pre-Treatment	Treatment	Post-Treatment
Administration of pretest to test frequency of examination anxiety before the treatment	Eight weeks of interventions using REBT and ETS.	Administration of posttest to test frequency of examination anxiety after the treatment

**Method of Data Analysis:** The Analysis of Covariance (ANCOVA) will be used to determine the joint effect of the independent variables on the dependent variable. This ANCOVA will be employed to determine the significant mean differences observed in the pre-treatment and post

treatment scores of all groups. All the hypotheses stated in this study were tested at 0.05 alpha levels.

**Ethical Consideration:** Ethical approval was obtained from Babcock University Health Research Ethics Committee (BUHREC) to conduct research.

## Results

**Table 2: Tests of Between-Subjects Effects of Treatment, Gender and LOC Grouping on Pupils' Examination Anxiety**

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	10048.930 <sup>a</sup>	10	1004.893	11.317	.010
Intercept	5147.979	1	5147.979	57.976	.000
Pretest	162.761	1	162.761	1.833	.264
Group	890.703	1	890.703	10.031	.009
Error	24241.035	273	88.795		
Total	37416.027	278			
Corrected Total	23597.864	276			

a. R Squared = .388 (Adjusted R Squared = .151)

The results in Table 2 revealed that there was a significant difference in the effect of Rational Emotive Behaviour Therapy (REBT) and Enhanced Thinking Skills (ETS) in reducing examination anxiety among primary school pupils ( $F_{(1,273)} = 10.031$ ;  $p = .009 < 0.05$ ).

**Table 3: Estimates of Effect of Rebt and Ets in Reducing Examination Anxiety Among Primary School Pupils**

Treatment Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
REBT	50.039 <sup>a</sup>	1.806	46.518	52.449
ETS	53.486 <sup>a</sup>	1.408	44.930	55.043

a. Covariates appearing in the model are evaluated at the following values: Pre-test examination anxiety = 93.897.

The results in Table 3 revealed that participants in the REBT group had a mean score of 50.039 and standard error of 1.806. In the ETS group, the mean score was 53.486 and the standard error was 1.408. The results of analysis to test whether these mean scores are significantly different are shown in Table 4.

**Table 4: Univariate Test of the Effects of Rebt and Ets in Reducing Examination Anxiety Among Primary School Pupils**

	Sum of Squares	Df	Mean Square	F	Sig.
Contrast	890.703	1	890.703	10.031	.009
Error	24241.035	273	88.795		

The F tests the effect of Treatment Group. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

The results in Table 4 revealed that there is a significant difference in the effect of REBT and ETS in reducing examination anxiety among primary school pupils ( $F_{(1,273)} = 10.031$ ;  $p = .009 < 0.05$ ). In effect the null hypothesis was rejected by this finding. The implication of this finding is that participants in the REBT group (50.039) benefited more from the training compared to their counterparts in ETS group (53.486). Thus, REBT is more effective in reducing examination anxiety compared to ETS.

## DISCUSSION OF FINDINGS

The outcome of the first hypothesis showed that there is significant difference in the effect of Rational Emotive Behaviour Therapy (REBT) and Enhanced Thinking Skills (ETS) in reducing examination anxiety among primary school pupils. This is an indication that the two treatments (REBT and ETS) are effective in reducing examination anxiety among primary school pupils. This result confirms the importance of independent variables (REBT and ETS) in exerting influence on the criterion variable (examination anxiety). The reason for this result was as a result of the six weeks exposure to treatment. This is due to the fact that positive changes are facilitated by using behavioural techniques (Aderanti, 2006; Adeoye, 2014; Ayodele, 2015, 2020).

The results showed that the main effect of treatment conditions on pupils' examination anxiety level was significant. This showed that treatment conditions brought about a significant decrease in the examination anxiety of pupils in the REBT and ETS groups. However, the results showed that the subjects in the REBT intervention group benefited significantly from the treatment compared to the ETS group as shown in Table 4.2 and Table 4.3. This result is not surprising because cognitive factors play an important role in psycho-behaviour changes, since the way people think has a controlling effect on their action. This is in tandem with previous studies which indicated that REBT was effective in reducing academic stress. A study by Eifediyi, et al (2017) who investigated the effectiveness of Rational Emotive Behaviour Therapy (REBT) in reducing examination anxiety and academic stress of undergraduate students found out that the effect of the therapy (REBT) was significant on the treatment group compared with that of control group. This study also corroborates Onuigbo et al.'s (2018) findings. With this result, it is certain that students can be helped to reduce their academic stress using REBT.



Also, the significant effect of ETS in reducing examination anxiety among primary school pupils cannot be overlooked because it has equally been proved to assist individual in overcoming impulse behaviour, promote flexible thinking, values and moral reasoning. This is supported by the findings of Ayodele (2014 and 2020) that ETS is an emotional technique, a cognitive-behavioural skills program and a treatment which targets a range of topics such as impulse control, flexible thinking, values and moral reasoning, interpersonal problem solving, social perspective taking, and critical reasoning. Examination anxiety is a reflection of individual thinking faculty.

## CONCLUSION

The outcome of this study based on the result obtained has confirmed the effectiveness of Rational Emotive Behaviour Therapy (REBT) and Enhanced Thinking Skill (ETS) in reducing examination anxiety among primary school pupils in Nigeria. From the findings, it means that uneasiness or apprehension experienced before, during or after examination because of concern, worry or fear of uncertainty by the students can be managed or curtailed. The findings have effectively demonstrated that the treatment packages could be used as veritable tools in equipping students with necessary skills in dealing with too much anxiety during examination that may interfere with their concentration on the test, thus enhancing their performance in examination.

Based on the conclusion of the study, the following recommendations were made:

1. The results of this study showed that REBT and ETS were effective in reducing test anxiety in primary school pupils. It is recommended that Government should try to encourage the training of more counselors to teach courses relating to test anxiety at both the primary, secondary and university levels in order to reduce the problem of examination malpractice that the nation is experiencing today.
2. Counsellors, psychologists and other professionals working in schools settings could create special programmes for students with test anxiety, which would include a special programme or programmes for enhancing self-concept, self-efficacy, and unwillingness to engage in examination malpractice.
3. It is not just enough to have counsellors attached to schools. Their roles in terms of helping students to adjust socially, mentally and academically must be appreciated. This means that school counsellors should be given the opportunity to give or expose students to counselling sessions designed to improve their test anxiety, mental health and update their study habits.
4. Teachers and school administrators should also help in referring students in needs to the school counsellors. The counsellor will thereby employ the best methods in assisting these students.

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