EFFECT OF BEHAVIOURAL REHEARSAL TECHNIQUE ON TEST ANXIETY AMONG SECONDARY SCHOOL STUDENTS IN AWKA EDUCATION ZONE OF ANAMBRA STATE, NIGERIA

Ada N. Anyamene
an.anyamene@unizik,edu.ng

Juliana A. Akuezuilo
ja.obika@unizik.edu.ng

Francisca U. Udeagha
fu.udeagha@unizik.edu.ng

Department of Guidance and Counselling, Faculty of Education,
Nnamdi Azikiwe University, Awka, Nigeria.

ABSTRACT

This study determined the effect of behavioural rehearsal technique on test anxiety among secondary school students in Awka Education Zone of Anambra State, Nigeria. Specifically, the study tends to ascertain the effect of behavioural rehearsal on test anxiety of secondary school students when compared to those in the control group using their pre- test and post- test mean score and to determine the effectiveness of behavioural rehearsal technique on test anxiety of male and female secondary school students using their pre-test and post- test mean score. The study is a quasi- experimental research. The specific design adopted is non- randomized pre-test and post-test control group design. This study consists of two groups of participants from three co-educational schools sampled. The Population of the study comprises of 580 SS 1 and SS2 students in the 62 government owned secondary schools in Awka Education Zone. The instrument used for data collection was an adopted Speideger test anxiety inventory. Mean was used in answering the research questions, and analysis of covariance (ANCOVA) was used in testing the hypotheses. The study found among others that behavioural rehearsal technique had significant positive effect on students' test anxiety irrespective of their gender. While the study recommends that Guidance Counsellors in secondary schools should adopt behavioural rehearsal technique on test anxiety.

Keywords: Effect, Test anxiety, Behavioural rehearsal, Secondary school, Students

Introduction

Since the inception of western education in Nigeria, test has being widely used in evaluating students for placement and promotion in various educational institutions. Test therefore seems to be an indispensable tool in the education sector because, it is through test that students relative standing are been ascertained in relation to their performances. Mark scored by students is regarded as test scores. Test scores has become an important tool in evaluating students for promotion in schools, certifications and admission into higher institution of learning like universities, polytechnics, colleges of educations among others.

According to Iroegbu (2013), students may be at unease as they anticipate examination outcomes thus leading to test anxiety. While Arana and Furlan (2015) describe test anxiety as a psychological condition in which people experience extreme distress and anxiety in testing situations. Woods and Symes (2010) described test anxiety as the uneasiness or nervousness felt by students who have fear of failing an examination. Therefore, test anxiety is the fear and tension that an individual has either before, during or after taking a test or examination which has the capacity of affecting their performances.

Nwude, (2013) observed that many secondary school students do experience test anxiety when preparing to sit for examination. Therefore, Akinsola and Nwajei (2013) said it is necessary to assist students in reducing test anxiety in our secondary schools while in examination period. This makes it necessary for Guidance Counsellors, Mental Health Professionals and Psychologists to develop various behavioural techniques like cognitive approaches with rational emotive therapy, cognitive restructuring and other cognitive techniques to manage test anxiety among students. Despite introducing these techniques, students have being consistently performing below average in various secondary schools especially in external examinations.

Many stakeholders like parents, educationists, government among others raised concern about poor performance of secondary school students in examination especially in external examination like West Africa Examination Council (WAEC), National Examination Council

(NECO) and Joint Admission Matriculation Board Examination (JAMB). These makes stakeholders to blame teachers and their teaching methods, while some stakeholders laid blame on the door of students for their inability to read and comprehend what have been taught while some stake holders faulted our educational system in Nigeria especially in Awka Education Zone of Anambra State.

However stake holders have not thoroughly look into anxiety that comes along examination period among students. There are very few studies on students' behavioural rehearsal technique and anxiety, especially in Awka Education Zone of Anambra State. Behavioural rehearsal is a behavioural therapy in which a client practices new behaviour in the consulting room often aided by the therapist (Henshaw & Macdavidson, 2012) The technique involves effort to actively recall material in preparation for an examination, repeating single words during the test to produce relaxation, practice in dealing with possible test crises before taking the examination, incorporating successful test taking strategies of others in your routine. It is the acting out of behaviour to learn it and refine it as a skill. This study tends to examine the effect of behavioural rehearsal technique on test anxiety and effectiveness of behavioural rehearsal technique on test anxiety of male and female secondary school students using their pre-test and post- test mean score.

Purpose of the study

The purpose of this study is to determine the effect of behavioural rehearsal technique on test anxiety among secondary school students in Awka Education Zone of Anambra State, Nigeria. The specific objectives of this study are:

1. To examine the effect of behavioural rehearsal on test anxiety of secondary school students when compared to those in the control group using their pre- test and post- test mean score.
2. To determine the effectiveness of behavioural rehearsal technique on test anxiety of male and female secondary school students using their pre-test and post- test mean score.

Research Questions

The following research questions were answered:

1. What is the effect of behavioural rehearsal on test anxiety of secondary school students when compared to those in the control group using their pre- test and post- test mean score?
2. What is the effectiveness of behavioural rehearsal technique on test anxiety of male and female secondary school students using their pre-test and post- test mean score?

Hypotheses

Based on the above questions, this study was guided by these null hypotheses:

1. There is no significance difference in the effect of behavioural rehearsal when compared with those in the control group who received conventional counselling using their post-test mean score.
2. There is no significance difference in the effect of behavioural rehearsal on test anxiety of male and female secondary school students using their post- test mean scores.

Method

The study is a quasi experimental research. The specific design adopted for this study is non-randomized pre-test post-test control group design. This is because subjects were not randomly assigned to groups. Nworgu (2015) described a quasi experimental study as an empirical interventional study used to estimate the casual impact of an intervention on target population without random assignment..This study consists of two groups of participants from three co-educational schools sampled. A group served as experimental group while the second group serve as a control group. Experimental group was treated with behavioural rehearsal technique, while the control group received no treatment but neutral interaction with the school guidance counsellors. The researchers assigned participants into the two groups. Three schools were selected using simple random sampling. The three schools were grouped in into two groups named Group A and Group B. Group ‘’A’ served as experimental group 1 with behaviour rehearsal as treatment interventions, while Group ‘’B’ served as the control group which received no treatment but neutral interaction.

The study was conducted in Awka education zone. Awka education zone is one of the six education zones in Anambra State with five local government areas namely: Awka south, Awka north, Anaocha, Dunukofia and Njikoka.

The Population of the study comprises of 580 SS 1 and SS2 students in the 62 government owned secondary schools in Awka Education Zone of Anambra State.

The sample of the study will consist of 154 (70 males and 84 females) SS 1 and SS2 students with test anxiety drawn from three secondary schools out of the 580 student in the 16 co-educational public secondary schools in Awka South Local Government Area, Awka Education Zone, Anambra State. The sample of the study was obtained using multi- stage sampling procedure which was employed as follows:

Firstly, the study used simple random sampling technique (balloting without replacement), one local government area was drawn from the five local government area in the education zone. Next, purposive sampling technique was employed to select all the 16 co- educational secondary schools in the chosen local government area. Out of the three selected schools, two groups was formed from the three schools. One was randomly assigned to experiment (pretest and post-test) group and the second group was the control group. Simple random sampling technique (flip of a coin) was used to select the groups. In each of the three sampled schools, the various arms of SS 1 and SS2 classes were listed on three pieces of paper, folded and using balloting, two of the arms were picked. The experimental group group 1 consists of 47 students (24 males and 23 females) and the control group consists of 55 students (30 males and 25 females) making the total sample number of 102 as the total sample size.

Instrument used for data collection was a questionnaire titled “test anxiety inventory (TAI)”, originally developed by Speielberger (1980), but was revalidated for use with Nigerian sample by Omoluabi (2003). TAI has been adapted to Nigeria context and has been used extensively in Nigeria. The test anxiety inventory (TAI) is a self-report psychometrics scale which was developed to measure individual differences in test anxiety as situational specific trait.

The instrument served two purposes; it was administered before the experiment as pre-test on both the experimental and control group. After the training of behavioural rehearsal and modelling techniques in reducing test anxiety on the experimental groups, the test anxiety inventory (TAI) was re-administered on both experimental and control groups. At this point, the instrument served as post-test. The re-ordering of the items in the post-test was done to reduce the incidence of the students realizing that they are being retested.

The Mean was used in answering the research questions, and analysis of covariance (ANCOVA) was used in testing the hypotheses at 0.05 level of significance

Results

Research Question One: What is the effect of behavioural rehearsal on test anxiety of secondary school students when compared to those in the control group using their pre- test and post- test mean score?

Table 1: Pretest and Posttest test anxiety mean scores of secondary students treated with behavioural rehearsal technique and those treated with conventional counselling (Norm = 40)

Source of Variation	N	Pretest Mean	Posttest Mean	Lost Mean	Remark
Behaviour Reh Technique	47	44.47	31.47	13.00	More Effective
Conventional Couns	55	47.04	37.11	9.93	Effective

In table 1, it was observed that the secondary students treated with behavioural rehearsal technique had pretest mean score of 44.47 and posttest mean score of 31.47 with lost mean 13.00 in their test anxiety, while those in the control group who received conventional counselling had pretest mean score of 47.04 and posttest mean score of 37.11 with lost mean 9.93. With posttest mean scores of 31.47 and 37.11 which are below the norm of 40.00 both Behavioural rehearsal and conventional counselling techniques are effective in reducing test anxiety among secondary school students. However, with higher lost mean 13.00 behavioural rehearsal is more effective.

Hypothesis 1

Ho: The effect of behavioural rehearsal on test anxiety scores of secondary school students will not be significant when compared with those treated with conventional counselling using their posttest mean scores.

Table 2: ANCOVA on the effect of behavioural rehearsal on test anxiety of students when compared with those who received conventional counselling

Source of variation	SS	df	MS	Cal. F	Pvalue	P ≤ 0.05
Corrected Model	1999.677	2	999.838			
Intercept	1.227	1	1.227			
Test anxiety1	1193.234	1	1193.234			
Treatment models	336.557	1	336.557	9.402	.003	S
Error	3543.814	99	35.796			
Total	127018.000	102				

Corrected Total	5543.490	101

Table 2 indicates that at 0.05 level of significance, 1df numerator and 101df denominator, the calculated F is 9.402 with Pvalue of 0.003 which is less than 0.05. Therefore, the first null hypothesis is rejected. So, the effect of behavioural rehearsal technique on the test anxiety of secondary school students is significant.

Research Question 2

What are the differences in the effectiveness of behavioural rehearsal on the male and female secondary school students' test anxiety using their pretest and posttest scores?

Table 3: Pretest and Posttest test anxiety mean scores of male and female students treated with behavioural rehearsal technique

Source of Variation	N	Pretest Mean	Posttest Mean	Lost Mean	Remark
Male	24	43.83	30.50	13.33	More Effective
Female	23	45.13	32.48	12.65	

Table 3 indicates that the male students treated with behavioural rehearsal had pretest mean score of 43.83 and posttest mean score of 30.50 with lost mean 13.33 in their test anxiety, while the female students treated with behavioural rehearsal had pretest mean score of 45.13 and posttest mean score of 32.48 with lost mean 12.65. With lost mean score of 13.33 for males which is greater than lost mean score of 12.65 for females, behavioural rehearsal is more effective in reducing male secondary school students' test anxiety.

Hypothesis 2

Ho: The effectiveness of behavioural rehearsal technique on the test anxiety scores of male and female secondary school students will not differ significant using their posttest mean scores.

Table 4: ANCOVA on the effectiveness of behavioural rehearsal technique on the test anxiety of male and female students

Source of variation	SS	df	MS	Cal. F	Pvalue	P ≤ 0.05
Corrected Model	171.282	2	85.641			
Intercept	38.576	1	38.576			
Test anxiety1	125.319	1	125.319			
Gender	21.924	1	21.924	0.797	0.377	NS
Error	1210.420	44	27.510			
Total	47923.000	47				
Corrected Total	1381.702	46				

Table 4 reveals that at 0.05 level of significance, 1df numerator and 46df denominator, the calculated F is 0.797 with Pvalue of 0.377 which is greater than 0.05. Therefore, the fourth null

hypothesis is accepted. So, the effectiveness of behavioural rehearsal technique on the test anxiety of male and female secondary school students do not differ significantly.

Discussion

The findings of the study revealed that students in both the experimental and control groups possessed test anxiety before the commencement of treatment as measured by their score of the pretest. The study also revealed that students taught with behavioural rehearsal technique had reduced test anxiety scores than those taught with conventional method. Hence, the effect of behavioural rehearsal technique on test anxiety of secondary school students is significant. This decrease in test anxiety scores of students taught with behavioural rehearsal can be attributed to the approach's nature of allowing the students to observe a stressful situation and take notice of what happens to the doer (either positive or negative reinforcement). The lesson individual learns from the situation will motivate the individual to perform the behaviour

The findings of this study are all in line with that of Powell (2004), Henshew and MacDavidson (2012), Adewusi (2013), and Nwokolo, Anyamene, Nnanemere and Akuezuilo (2018) who all reported in their various studies that behavioural rehearsal technique significantly reduced students test anxiety and other maladaptive behaviours. Also, the finding of the study lends credence to the findings of Kendrick (2010) who reported that behavioural rehearsal technique significantly reduced test anxiety among music training students.

Findings from this study showed that there is no significant difference in the effectiveness of behavioural rehearsal therapy on test anxiety of male and female students. Although,the findings of the study revealed a reduction in post test mean score on males than on females. That is, the male students had more reduced test anxiety scores than the female students after been exposed to the treatment package.However, on testing the null hypothesis, it was revealed that the difference is not significant. This simply implies that behavioural rehearsal technique is not gender biased. Hence, it is a gender friendly approach that reduces test anxiety among secondary school students irrespective of gender.

The finding of this study concurs with that of Elendu (2010) and Henshew and MacDavidson (2012) who reported in their various studies that Behavioural rehearsal technique is an

instructional approach that reduces maladaptive behaviours among secondary school students irrespective of gender.

Conclusion

The study established that Behavioural rehearsal technique had significant positive effect on students' test anxiety irrespective of their gender, as the experimental group taught with Behavioural rehearsal technique had reduced post test anxiety scores than their counterparts taught with the conventional Method. In light of this, it is therefore pertinent to say that Behavioural rehearsal technique is gender friendly approach of learning that reduces students' text anxiety. More so, the difference in the effectiveness of behavioural rehearsal technique on male and female secondary school student is not significant.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Guidance Counsellors in secondary schools should adopt Behavioural rehearsal technique on test anxiety.
2. Government, education stakeholders and professional bodies like Counselling Association of Nigeria (CASSON) should organize seminars, symposia, workshops, and conferences for guidance counsellors in order to familiarize teachers with these innovative techniques that can help reduce test anxiety among students.
3. The form teachers and the school counsellor together can identify students suspected to have test anxiety and help group them into small reading classes since one of the reasons for test anxiety is the students' lack of preparedness. That way, they could start on time to prepare for examination.

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