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EFFECT OF GRADED EXPOSURE AND TEST-TAKING SKILLS TRAINING COUNSELLING TECHNIQUES ON TEST ANXIETY AMONG SECONDARY SCHOOL STUDENTS

Adenike Abiola Adeboye[1], Rahmon Ade Bello[2], Sani Sambo[3]
[1]University of Ilorin, Nigeria
[2,3]Ahmadu Bello University, Zaria
Corresponding Email: adenikeadeboye7@gmail.com

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Abstract

This study investigated the effects of graded exposure and test-taking-skills training counselling techniques on test anxiety among secondary school students in Ilorin metropolis, Nigeria. The study employs a quasi-experimental pre-test/post-test design involving SS2 students identified with high test anxiety. The study measured anxiety levels before and after a 6-week graded exposure treatment programme and test-taking skills training treatment. Data was analysed using paired sample t-tests to compare pre-test and post-test scores. The findings of this study revealed that graded exposure counselling technique had a significant effect on physiological (t = 20.38, p = 0.000), cognitive (t = 20.70, p = 0.000), behavioural (t = 20.73, p = 0.000) and emotional (t = 11.81, p = 0.000) components of test anxiety among secondary school students in Ilorin metropolis. It was also revealed that test-taking skills training counselling technique had a significant effect on physiological (t = 20.68, p = 0.000), cognitive (t = 16.61, p = 0.000), behavioural (t = 16.55, p = 0.000) and emotional (t = 19.23, p = 0.000) components of test anxiety among secondary school students in Ilorin metropolis. It was recommended among others that, Professional Counsellors and Psychologists should include the use of graded exposure and test-taking skills training techniques in the secondary school programmes and training to assist students in learning how to face their related test anxiety in a gradual process and overcome them.

Keywords: graded exposure, test-taking-skills, counselling techniques, test anxiety .

Introduction

Test anxiety has become a great concern to educational stakeholders as it causes different physiological, behavioural, cognitive and emotional conditions among students either before, during or immediately after the examination conditions. McDonald (2010) described test anxiety as a psychological condition in which students develop unpleasant fearful experience, become more panic or unstable, and consequently become distressed as a result of fear they have towards a particular test which they have to take, they are taking or they have just taken. It may evoke varied degree of fear (anxiety) in secondary school students, this depends on the importance attached to such test to be taken (for instance: external tests and promotional tests). In Nigeria, there is also prevalence of test anxiety among secondary school students. Bada et al. (2021) maintained that there is high rate of test anxiety among secondary school students in Nigeria. It has also been revealed that between 25% - 40% of secondary school students in Nigeria experience test anxiety

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in their academic performances (Cassady, 2010). Akinsola and Nwajei (2013) affirmed further that secondary school students experienced some test anxiety before and during test situations. Equally, Secondary school students in Ilorin metropolis also experience test anxiety such as: worry, faster heartbeats, fear, restlessness and sweat before and during examination (Omosidi & Adigun, 2014).

Test anxiety can be diagnosed and psychologically treated using a particular treatment intervention strategy or a combination of one or more therapies such as graded exposure, test-taking-skills training, study-skills training, cognitive restructuring, relaxation training, behaviour rehearsal, modelling among other counselling techniques (Ahmed, 2016; Springer & Tolin, 2020; Kaczkurkin & Foa, 2022). This study however focuses on the two major counselling techniques which include; graded exposure and test-taking skills training. Graded exposure counselling technique is a counselling technique enrooted from the school of behaviourism which makes conscious effort in introducing the client to the anxiety provoking tasks on a gradual process of exposing the client to anxiety-induced stimulus until such a task becomes less anxiety provoking task for the client. This process, brings the client more closely to reality, builds up confidence in him or her and makes him or her to become less anxious in the face of the perceived anxiety provoking task. Graded exposure counselling technique can be seen as a useful counselling technique in the treatment of anxiety related disorders such as test anxiety.

Graded exposure counselling technique has been found to be efficacious in the treatment of test anxiety, school phobia, panic disorder, anxiety disorder, agoraphobia, obsessive-compulsive disorder, post-traumatic stress disorder (PTSD) and anger management (Tolin, 2011; Carbonel, 2014). Also, it has the influence and efficacy proof of weakening the connections between maladaptive thoughts and the prevailing distressing situations faced by the individuals that are anxious in nature. Furthermore, graded exposure technique is not just making the clients to gradually face the feared event, situation or object on step by step basis, but also has power over such situation to be reduced and eventually eliminated.

Test-taking skills training counselling technique on the other hand, is a counselling strategy that involves cognitive exercises and decisive mental coping abilities to deal with test situations in an appropriate manner. It helps students to know what exactly to be done before, during and shortly after a test to let him or her succeed in the tests. Example of this strategy includes; ability to manage one's time more effectively, set forth appropriate time table for personal study, practice on the past questions, use effective counselling methods, evaluate personal effort, practice with group, rehearsal on the practiced mastery methods among other strategies. These strategies help students to independently do well in a test and lead to mastery of the test content or materials (Dodeen, 2015). According to Dodeen et al. (2014), test-taking-skills training are practical cognitive skills that would enable any student do decisively with test challenges or skills that would enable him or her undergo such a test taking situation in an appropriate manner, which in turns, leads to academic success. Hence, it is conscious efforts to acquire good result in academic pursuit without any disrupting or fear of any form,

Test-taking-skills training evolve around making conscious efforts to clear obstacles that can cause academic failure for students, ranging from poor time management during exams, lack of concentration, poor content mastery, poor sitting arrangement, lack of writing materials needed among other core test conditions for good performance. Lack of requisite counselling skills for test could lead a student to academic failure. A popular axiom says unequivocally that, failure to prepare by anybody is preparation to fail. Well guided counselling technique training has been found to be helpful for an array of problems among students such as anxiety, depression, and conduct disorder. It is on this background, this study intends to examine the effects of graded exposure counselling

technique (GECT) and test-taking-skills training counselling technique (TSTCT) in reducing test anxiety among secondary school students in Ilorin metropolis, Kwara State, Nigeria.

Test anxiety is an inevitable phenomenon because test administration has become and remains the integral exercise that determines every individual's placement in every sphere of life. It is also used as a yardstick to promote students from one level to another level, because of this reason anxiety sets in either before, during or after the test, whether a male or female, old or young, brilliant or not too brilliant do experience test anxiety. Secondary school students experience test anxiety in Ilorin metropolis, as a result of this many drop-out from school, they become drug addicts, they impregnate under-aged girls, they also become hooligans on the streets and afraid to forge ahead in their academic pursuits. In this regards, test anxiety has been the major concern in Ilorin metropolis. Secondary school students in Ilorin metropolis experience test anxieties such as: worry, faster heartbeats, fear, restlessness and sweat before and during tests. This is the observation of the researcher as a school counsellor and teacher that many secondary school students in Ilorin manifest test anxiety.

Different attempts have been made in reducing test anxiety among secondary school students in Ilorin metropolis through counselling, organization of school lesson, after school lesson and even use of medication to reduce it but all to no avail as test anxiety still persists among secondary school students. Although fear and anxiety are adaptive and necessary for survival, such responses become problematic when they are excessive, persist over time and produce discomfort for the students. Test anxiety could inhibit proper functioning of an individual student, as this is characterized by excessive fear expression or worries and a diverse negative thoughts like: (self-prediction of failure, self-degrading thoughts or pre-occupation with consequences of doing poorly), symptoms of anxiety (like: fast heart-beat, sweaty palms, muscle tension) and poor study habit, mannerism or deficit (such as: last minutes cramming, unnecessary last rush to tests hall, poor note-taking, confusion about a major assignment, postponing one's work or reading towards deadlines of test) and so on.

Test anxiety can be frustrating to secondary school students and even to their parents if it is left untreated. Such behaviour may lead to examination malpractice, a punishable offence under the law which could lead the perpetrator to jail term. The problem can result to poor preparation and poor attitudes towards other areas of life. If test anxiety continues to persist in the lives of secondary school students, its consequences are possible to interfere with student's future ambitions, prevent parents from realizing their aim of sending their children to school, and leads to monetary efforts loss. Graded exposure and test-taking skills training were used as ones of the effective techniques for reducing test anxiety to the best knowledge of the researcher no similar study was conducted in the study area to address this problem. In view of these, the researcher was motivated to undertake this study in attempt to address examination anxiety among secondary school students in Ilorin metropolis, Kwara State, Nigeria.

The objectives of this study are to determine the: 1. effect of graded exposure on physiological, cognitive, behavioural and emotional components of test anxiety among secondary school students in Ilorin metropolis, Kwara State. 2. effect of test-taking-skills training on physiological, cognitive, behavioural and emotional components of test anxiety among secondary school students in Ilorin metropolis, Kwara State. 3. differential effect of graded exposure and test-taking skills training on test anxiety among secondary school students in Ilorin metropolis, Kwara State.

Method

A quasi-experimental research design involving non-randomized pre-test-post-test design was used for the study. This experimental design is considered appropriate because this design involves treatment groups design only. It implies a design without random assignment of subjects.

The population of this study comprised all the SS 2 students identified with test anxiety in Ilorin Metropolis. Ilorin metropolis comprises Ilorin South, Ilorin East and Ilorin North Local Government Areas. Targeted population was SS II test anxious students in Ilorin East local government area. A total number of thirty (30) test anxious students were purposefully selected from the overall population. These students were drawn from St' Anthony's Secondary School, Ilorin and Okelele Secondary School, Ilorin by checklist called “Test Anxiety Checklist” (TAC). Fifteen (15) of them were drawn from St' Anthony's Secondary School and were exposed to Graded Exposure Technique while the other fifteen (15) were drawn from Okelele Secondary School, Ilorin and were exposed to test-taking skills training.

Test Anxiety Checklist (TAC) was used to identify test anxious students. The items of the instrument were adopted from the Test Anxiety Scale developed by Sarason (1977). The instrument consists of 24 items with “true or false” responses. The higher the true’s of the respondent, the higher the test anxiety and vice versa. Nine (9) true responses or below are signify low test anxiety, 10 to17 responses are signify moderate test anxiety, while 18-24 responses are signify high test anxiety. The researcher went for the high test anxious students because they are the set of students who need urgent attention to be assisted with the treatments.

Students Test Anxiety Scale was used to obtain the pre-test and post-test scores of the respondents. It is an adapted one tagged "Student Test Anxiety Scale" (STAS) adapted from Shukla (2013), and it consisted four different components. These are: physiological, behavioural, cognitive and emotional components. The instrument consists of 10 items on each component making a total number of 40 items on the instrument. The instrument is scored 5 point Likert scale of; Very Much True of Me (VMTM); Very True of Me (VTM); Moderately True of Me (MTM); Slightly True of Me (STM) and Not True of Me (NTM). On the list of the items, physiological component has items 1 to 10. The behavioural component has items 11 to 20, cognitive component covers items 21 to 30 and lastly emotional has items 31to 40. For the physiological component item 1 to 9 were completely adopted from Shukla (2013), and only item 10 was added from the literature making 90% of the adopted items from the above mentioned scholar's instrument. On the behavioural component, the entire items 11-20 were utterly adopted from the above mentioned author's work, making the adopted items on the component 100%, on cognitive component, items 21 to 28 were adopted from Shukla (2013) making the adopted items accounted for 80%, while only two items, that is; items 29-30 were sourced from the literature. Also, items 31-40 were sourced from literature. It may be concluded that the instrument of this study was an adapted instrument.

The minimum score a student can get from the Student Test Anxiety Scale is 40 while the maximum is 200. For the components; the physiological, cognitive, behavioural and emotional have 10 items each with a minimum score of 10 and a maximum score of 50 respectively. Therefore, only respondents with 50 and above in the four components is included in the treatment. The content validity of the two instruments (TAC & STAS) were established with the help of experts in the Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria. The two instruments (TAC & STAS) have reliability coefficient of .80 and .75 respectively.

The treatment procedure were conducted in three phases for the purpose of this study. They are: pre-treatment phase, treatment phase and post-treatment phase. These phases are presented as follows:

1. **Pre-Treatment Phase:** This is the first phase where baseline data were collected. This was done a week before the commencement of the treatment programmes by administering the Student Test Anxiety Scale to SS II examination anxious students. The baseline data that were collected were scored and kept to serve as pre-test and were later compared with the post-test scores for inferences to be drawn on the effect of the treatments on the dependent variable.
2. **Treatment Procedure:** In order not to disrupt the present school programme of each selected school, the use of graded exposure and test-taking skills training were done on the two treatment groups during the students' free periods. One group was exposed to graded exposure while the other was exposed to test-taking skills training for the period of six (6) weeks, with two sessions per week. There were eleven (11) and nine (9) sessions respectively per each treatment group. However, for the two treatment groups, 6 weeks and 11 and 9 sessions were used, which lasted for a period of 30-45 minutes for the treatment to be conducted every Wednesday and Thursday of the six (6) treatment weeks.
3. **Post Treatment Phase:** After pre-treatment and treatment phases, the next stage is post treatment phase. This was done by re-administering the Student Test Anxiety Scale to SS II test anxious students after 6 weeks of the treatment programme. The data (post-test) that were collected were compared with that of pre-test in order to determine the effect of the treatment technique (graded exposure and test-taking skills training.

The data that were collected were collated, organized, evaluated and analyzed using inferential statistics. Hypotheses was split into 9. The inferential statistics of paired sample t-test were used to test hypotheses split into 1-8 where the focus of the researcher is to establish the differences between pre-test and post-test scores while Analysis of Covariance (ANCOVA) was used to test hypothesis 9 in order to access the differential effect of the two treatment techniques. All the hypotheses were tested at 0.05 level of significance.

Result and Discussion

Table 1 revealed pre-test mean score of 38.27 and standard deviation of 3.751. Post-test mean score reduced to 14.47 and standard deviation to 2.031 with the degree of freedom of 14 and t = 20.38. The table also shows p = .000. From the table, the p-value was found to be lesser than the 0.05 level of significance. This implies that there is a significant effect of graded exposure on physiological component of test anxiety. Therefore, the null hypothesis which states that there is no significant effect of graded exposure on physiological component of test anxiety among secondary school students in Ilorin metropolis was rejected.

Table 1 Paired Sample t-test on Differences in the Pre-Test and Post-Test Mean Scores of Graded Exposure Treatment on the Physiological Component of Test Anxiety among Secondary School Students in Ilorin metropolis, Kwara State

Treatment	Variables	N	Mean	SD	df	T	p
GE	Pre-test	15	38.27	3.751	14	20.38*	.000
	Post-test	15	14.47	2.031			

* Significant, p<0.05

Table 2 revealed pre-test mean score of 36.13 and standard deviation of 2.53. Post-test mean score reduced to 15.13 and standard deviation to 2.29 with the degree of freedom of 14 and t = 20.70. The table also shows p = .000. From the table, the p-value was found to be lesser than the 0.05 level of significance. This implies that there is a significant effect of graded exposure on cognitive component of test anxiety. Therefore, the null hypothesis which states that there is no significant effect of graded exposure on cognitive component of test anxiety among secondary school students in Ilorin metropolis was rejected.

Table 2 Paired Sample t-test on Differences in the Pre-Test and Post-Test Mean Scores of Graded Exposure Treatment on the Cognitive Component of Test Anxiety among Secondary School Students in Ilorin metropolis, Kwara State

Treatment	Variables	N	Mean	SD	df	t	p
GE	Pre-test	15	36.13	2.53	14	20.70*	.000
	Post-test	15	15.13	2.29			

* Significant, p<0.05

Table 3 revealed pre-test mean score of 35.87 and standard deviation of 3.18. Post-test mean score reduced to 13.93 and standard deviation to 1.75 with the degree of freedom of 14 and t = 20.73. The table also shows p = .000. From the table, the p-value was found to be lesser than the 0.05 level of significance. This implies that there is a significant effect of graded exposure on behavioural component of test anxiety. Therefore, the null hypothesis which states that there is no significant effect of graded exposure on behavioural component of test anxiety among secondary school students in Ilorin metropolis was rejected.

Table 3 Paired Sample t-test on Differences in the Pre-Test and Post-Test Mean Scores of Graded Exposure Treatment on the Behavoural Component of Test Anxiety among Secondary School Students in Ilorin metropolis,Kwara State

Treatment	Variables	N	Mean	SD	df	T	p
GE	Pre-test	15	35.87	3.18	14	20.73*	.000
	Post-test	15	13.93	1.75			

* Significant, p<0.05

Table 4 revealed pre-test mean score of 32.80 and standard deviation of 2.98. Post-test mean score reduced to 15.40 and standard deviation to 3.94 with the degree of freedom of 14 and t = 11.81. The table also shows p = .000. From the table, the p-value was found to be lesser than the 0.05 level of significance. This implies that there is a significant effect of graded exposure on emotional component of test anxiety. Therefore, the null hypothesis which states that there is no significant effect of graded exposure on emotional component of test anxiety among secondary school students in Ilorin metropolis was rejected.

Table 4 Paired Sample t-test on Differences in the Pre-Test and Post-Test Mean Scores of Graded Exposure Treatment on the Emotional Component of Test Anxiety among Secondary School Students in Ilorin metropolis, Kwara State

Treatment	Variables	N	Mean	SD	df	T	p
GE	Pre-test	15	32.80	2.98	14	11.81*	.000
	Post-test	15	15.40	3.94			

* Significant, p<0.05

Table 5 revealed pre-test mean score of 38.20 and standard deviation of 3.78. post-test mean score reduced to 15.40 and standard deviation to 3.94 with the degree of freedom of 14 and t = 20.68. The table also shows p = .000. From the table, the p-value was found to be lesser than the 0.05 level of significance. This implies that there is a significant effect of test-taking skills training on physiological component of test anxiety. Therefore, the null hypothesis which states that there is no significant effect of test-taking skills training on physiological component of test anxiety among secondary school students in Ilorin metropolis was rejected.

Table 5 Paired Sample t-test on Differences in the Pre-Test and Post-Test mean scores of Test-Taking skills training on the Physiological Component of Test Anxiety among Secondary School Students in Ilorin metropolis, Kwara State

Treatment	Variables	N	Mean	SD	df	T	p
TTST	Pre-test	15	38.20	3.78	14	20.68*	.000
	Post-test	15	14.87	2.35			

* Significant, p<0.05

Table 6 revealed pre-test mean score of 38.13 and standard deviation of 4.71. Post-test mean score reduced to 14.53 and standard deviation to 2.10 with the degree of freedom of 14 and t = 20.68. The table also shows p = .000. From the table, the p-value was found to be lesser than the 0.05 level of significance. This implies that there is a significant effect of test-taking skills training on cognitive component of test anxiety. Therefore, the null hypothesis which states that there is no significant effect of test-taking skills training on cognitive component of test anxiety among secondary school students in Ilorin metropolis was rejected.

Table 6 Paired Sample t-test on Differences in the Pre-Test and Post-Test Mean Scores of Test-Taking Skills Training on the Cognitive Component of Test Anxiety among Secondary School Students in Ilorin metropolis, Kwara State

Treatment	Variables	N	Mean	SD	df	t	p
TTST	Pre-test	15	38.13	4.71	14	16.61*	.000
	Post-test	15	14.53	2.10			

* Significant, p<0.05

Table 7 revealed pre-test mean score of 36.13 and standard deviation of 4.30. Post-test mean score reduced to 13.33 and standard deviation to 2.76 with the degree of freedom of 14 and t = 16.55. The table also shows p = .000. From the table, the p-value was found to be lesser than the 0.05 level of significance. This implies that there is a significant effect of test-taking skills training on behavioural component of test anxiety. Therefore, the null hypothesis which states that there is no significant effect of test-taking skills training on behavioural component of test anxiety among secondary school students in Ilorin metropolis was rejected.

Table 7 Paired Sample t-test on Differences in the Pre-Test and Post-Test Mean Scores of Test-Taking Skills Training on the Behavioural Component of Test Anxiety among Secondary School Students in Ilorin metropolis, Kwara State

Treatment	Variables	N	Mean	SD	Df	t	p
TTST	Pre-test	15	36.13	4.30	14	16.55*	.000
	Post-test	15	13.33	2.76			

* Significant, p<0.05

Table 8 revealed pre-test mean score of 38.93 and standard deviation of 4.66. Post-test mean score reduced to 13.07 and standard deviation to 2.40 with the degree of freedom of 14 and t = 19.23. The table also shows p = .000. From the table, the p-value was found to be lesser than the 0.05 level of significance. This implies that there is a significant effect of test-taking skills training on emotional component of test anxiety. Therefore, the null hypothesis which states that there is no significant effect of test-taking skills training on emotional component of test anxiety among secondary school students in Ilorin metropolis was rejected.

Table 8 Paired Sample t-test on Differences in the Pre-Test and Post-Test of Test-Taking Skills Training on the Emotional Component of Test Anxiety among Secondary school Students in Ilorin metropolis, Kwara State

Treatment	Variables	N	Mean	SD	df	t	p
TTST	Pre-test	15	38.93	4.66	14	19.23*	.000
	Post-test	15	13.07	2.40			

* Significant, p<0.05

Table 9 ANCOVA Statistic showing Differential Effects of Graded Exposure and Test-Taking Skills Training on Test Anxiety among Students

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	941.24[a]	3	313.74	20.17	.000
Intercept	41346.69	1	41346.69	2658.60	.000
GROUP	41.24	3	13.74	.884	.252
Error	870.93	56	15.55		
Total	85813.00	60			
Corrected Total	912.18	59			

The analysis of covariance on table 9 shows the group F-values of .884 and the p-values also shown on the table is .252. This means that graded exposure and test-taking-skills training had no significant differential effect on test anxiety among students. Therefore, the null hypothesis which states that there is no significant differential effects of graded exposure and test-taking-skills training on test anxiety among secondary school students in Ilorin metropolis, Kwara State was accepted.

The first finding of the study revealed that graded exposure has significant effect on physiological component of test anxiety among secondary school students in Ilorin metropolis, Kwara State. This means that graded exposure has helped in reducing the level of physiological component of test anxiety among secondary school students in Ilorin

metropolis. This finding is in line with the findings of Lowe et al. (2008) who found that targeted interventions of graded exposure significantly reduce the physiological symptoms of test anxiety. Similarly, another study by Putwain (2007) highlighted the prevalence of test anxiety among schoolchildren and suggested that interventions focusing on gradual exposure to test environments could alleviate both the psychological and physiological impacts of test anxiety. The reason for this finding could be that through the process of graded exposure, students developed coping mechanisms and relaxation techniques that could help them manage their physiological responses to anxiety-inducing situations more effectively.

The second finding of the study also revealed that graded exposure has significant effect on cognitive component of test anxiety among secondary school students in Ilorin metropolis, Kwara State. This implied that graded exposure technique has helped in reducing the cognitive symptoms of test anxiety among the participants exposed to this treatment. This finding corroborates the previous findings of Putwain and Symes (2018) found that graded exposure interventions significantly reduced cognitive test anxiety in secondary school students. von der Embse et al. (2018) confirmed the efficacy of graded exposure in addressing cognitive aspects of test anxiety. Similarly, Owens et al. (2019) indicated that students who participated in graded exposure sessions experienced a significant decrease in worry and intrusive thoughts during exams. The reason for this could be that graded exposure often involves cognitive restructuring, where students learn to challenge and change their negative thoughts about tests.

The third finding of this study showed that graded exposure has significant effect on behavioural component of test anxiety among secondary school students in Ilorin metropolis, Kwara State. This implies that graded exposure technique is effective in treating behavioural component of test anxiety among students. This finding is similar to the finding of Thompson and Suzuki (2021) which found that graded exposure techniques consistently produced moderate to large effect sizes in improving test-taking behaviors across various cultural contexts. Similarly, Gonzalez-Cabrera, Fernandez-Prada, Iribar-Ibabe and Peinado (2018) reported that participants in graded exposure group exhibited improvements in their test-taking behaviors, such as increased attendance on exam days and reduced instances of "freezing" or leaving exams unfinished. The implication of this finding is that graded exposure has led to behavioral changes. As students repeatedly confront and manage their test anxiety, they can alter their patterns of response. This can result in improved focus, better study habits, and enhanced performance during tests.

The fourth finding of this study revealed that there was a significant effect of graded exposure on emotional component of test anxiety among secondary school students in Ilorin metropolis, Kwara State. This means that graded exposure technique worked effectively in reducing emotional symptoms of test anxiety among the participants. This finding is in tandem with the finding of Elliott and Place (2019) who asserted that gradual exposure helps students confront and manage their fears in a systematic way, which leads to a decrease in the emotional intensity of the anxiety response. The finding is also in line with the study of Cassady and Thomas (2020) which stated that graded exposure technique can lead to significant improvements in both academic and emotional outcomes for students with test anxiety. This could be that graded exposure has assisted the students to develop more positive and realistic thoughts about their abilities and the testing process.

The fifth finding of the present study establishes that there was significant effect of test-taking skills training on physiological component of test anxiety among secondary school students in Ilorin metropolis, Kwara State. This means that test-taking skills training help in reducing participants' physiological component of test anxiety. This finding therefore is in congruence with the finding of Maier et al. (2023) who demonstrated that test-taking skills can significantly reduce the physiological symptoms

of test anxiety by promoting a state of calmness and reducing the body's stress response. Yeo et al (2016) found that a structured programme teaching time management, relaxation techniques, and cognitive reframing significantly reduced both cognitive and physiological symptoms of test anxiety in high school students. Similarly, Trifoni and Shahini (2018) reported that students who received test-taking skills training exhibited lower levels of physiological arousal during exams compared to a control group. The reason for this finding could be that test-taking skill training technique reduces the novelty and uncertainty of tests, which can lower physiological responses such as heart rate and sweating.

In the sixth finding of this study, it was shown that there was significant effect of test-taking skills training on cognitive component of test anxiety among secondary school students in Ilorin metropolis, Kwara State. This implies that TTST has helped in reducing the participants' cognitive component of test anxiety. This finding corresponds with the finding of Duty et al. (2016) conducted a study on nursing students and found that those who participated in a test-taking strategy workshop reported lower levels of cognitive test anxiety and demonstrated improved exam scores compared to a control group. This suggests that equipping students with specific test-taking skills can help alleviate cognitive anxiety symptoms and enhance academic outcomes.

In the seventh finding of this study, it was shown that there was significant effect of test-taking skills training on behavioural component of test anxiety among secondary school students in Ilorin metropolis, Kwara State. This implies that TTST has helped in reducing the participants' behavioural component of test anxiety. This finding agrees with the finding of Ersan and Tok (2020) reported that secondary school students who participated in a test anxiety intervention program showed improved study habits and decreased procrastination compared to a control group. A study by Ergene (2019) found that programmes incorporating study skills training and test-taking strategies were among the most effective in reducing overall test anxiety. This suggests that test-taking skills training can positively influence the behavioral manifestations of test anxiety.

In the eighth finding of this study, it was shown that there was significant effect of test-taking skills training on emotional component of test anxiety among secondary school students in Ilorin metropolis, Kwara State. This implies that TTST has helped in reducing the participants' emotional component of test anxiety. The finding supports the finding of Ramirez and Beilock (2016) whose study's findings that students who engaged in a brief expressive writing exercise about their test-related worries before an exam showed reduced anxiety. Ngwoke et al. (2016) revealed that students trained. The reason for this study's finding could be that test-taking skills training enables students to focus and concentrate better during exams, which can reduce the overwhelming feelings that contribute to anxiety.

The ninth hypothesis revealed that there was no significant differential effects of graded exposure and test-taking-skills training on test anxiety among secondary school students in Ilorin metropolis, Kwara State. This means that graded exposure and test-taking-skills training counselling techniques have almost equal effect on test anxiety among the participants of the study. The finding of this study is in support of the finding of Hembree (2014) which found that a variety of cognitive-behavioral strategies, including systematic desensitization (a form of graded exposure) and test-taking skills training, effectively reduce test anxiety among students. However, the effectiveness of these strategies did not differ significantly, suggesting that both approaches are equally beneficial in reducing test anxiety symptoms. Additionally, Ginsburg et al. (2020) concluded that interventions focusing on cognitive-behavioral techniques, whether through gradual exposure or enhancing test-taking skills, provide substantial benefits in mitigating test anxiety. Yet, similar to previous findings, there was no significant

difference in the effectiveness of these methods when applied in school settings. The present finding suggests further that the two used counselling techniques employed in this study have almost similar therapeutic effect on test anxiety. It may be concluded that each of the two techniques (that is; graded exposure and test-taking skills training) have worked independently but effectively in reducing test anxiety among secondary school students in Ilorin metropolis.

Conclusion

Based on the findings from the study conducted among secondary school students in Ilorin metropolis, Kwara State, it is evident that the graded exposure and test-taking skills training have significant effects on various components of test anxiety. Specifically, graded exposure and test-taking skills training showed significant effects on the physiological, cognitive, behavioural, and emotional components of test anxiety. This suggests that gradual and controlled exposure to anxiety-provoking situations related to tests can effectively reduce overall test anxiety among students. Also, if students can be trained with coping abilities to deal with test situations in an appropriate manner, all situations related to tests can effectively reduce overall test anxiety and improve their concentration, attention and general performance.

Furthermore, the study did not find significant differential effects between graded exposure and test-taking skills training on the various components of test anxiety. This suggests that both approaches may be equally effective in reducing test anxiety among students in Ilorin metropolis, highlighting the potential for schools and educators to choose interventions based on practical considerations and student needs. Overall, integrating these interventions into educational practices could contribute significantly to improving students' psychological well-being and academic performance. Based on the findings of this study, it was recommended that:

1. School Counsellors and Educational psychologists should be encouraged to make effective use of graded exposure technique in reducing physiological, cognitive, behavioural and emotional components of test anxiety among secondary school students.
2. School Counsellors and Educational psychologists should be encouraged to make effective use of test-taking skills training technique in reducing physiological, cognitive, behavioural and emotional components of test anxiety among secondary school students.
3. Workshops and seminars should be organized for teachers and parents on how they could foster both graded exposure and test takings skills training techniques in their students and children to help them reduce test anxiety.
4. Professional counsellors and psychologists should include the use of graded exposure and test-taking skills training techniques in the secondary school programme and training to assist students to learn how to face their related test anxiety in a gradual process and overcome them, to assist the students to learn how to manage their time effectively, to have adequate Preparation before any test and to know how to read test instructions carefully and attentively.

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