Assessment of Interventional Strategies for Reducing Test and Mathematics Anxiety among Early Childhood Care Education Pre-Service Teachers in Imo State

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Abstract

The study assesses interventional strategies for reducing test and mathematics anxiety among early childhood care education pre-service teachers in tertiary institution. Based on the objectives of the study one research question and one hypothesis were formulated. Descriptive survey research design was used and the population of the study was 468 teacher educators. Simple random sampling technique was used to select 414 comprising of 116 males and 298 females. The instrument for data collection was a structured questionnaire titled assessment of interventional strategies for reducing test and mathematics anxiety among early childhood care education pre-service teachers in tertiary institution (AISRTAPT). The AISRTAPT was validated by two experts in psychology education and one expert in measurement and evaluation while the reliability of the AISRTAPT were determined using cronbach alpha reliability which yielded 0.85 coefficient. Data collected were analyzed using mean and standard deviation for research question. The study indicated interventional strategies for reducing test anxiety and mathematics anxiety irrespective of gender. It was recommended that workshops should be organized for Mathematics and teacher educators to known interventional strategies for reducing test anxiety and mathematics anxiety among pre-service teachers.

Keywords: Pre-service teachers; Early Childhood Education, Interventional Strategies, Test Anxiety, Mathematics Anxiety

Introduction

Assessment is an essential tool in the educational process because it measures the students' understanding (Jackson, 2019). In higher education institutions, the assessment of academic

progress takes different formats such as essays, dissertations, examinations, assignments, projects, and presentations. Sim, Holifield, & Brown in unamba et al (2016) had identified more than fifty different techniques used within higher education for assessment purposes; nevertheless, the most commonly used tool is an examination. The student's outcomes and performance are evaluated and graded using test or examinations (Chinta, 2008). In fact, 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 performance and grades. Hence, in most cases, during test period learners/ students become anxious when presented with examinations (Huberty, 2010). This form of anxiety is known as test anxiety.

Test anxiety is one of the most significant components of negative motivation, according to Kennedy and Wigfield (2014), and it directly impairs academic achievement. According to Dusek (2018), test anxiety is an unpleasant mood or emotional state that occurs during formal testing or other evaluation scenarios and has accompanying behavioral and physiological effects. Test anxiety is a very consistent propensity, as teachers can easily detect. Evaluative studies indicate that moderate degrees of worry can contribute to optimal performance on particular activities, but that performance can suffer when anxiety is too high or low. Children that are test-anxious typically do worse on exams, earn worse marks, and score lower overall (Ergene, 2011). According to Brown et al. (2005), test anxiety is defined as the physiological, cognitive, and emotional reactions brought on by the stress of the examination. It is a feeling that negatively affects students' academic performance. According to Horwitz and Young (2019), test anxiety is characterized as a fear of failure in test scenarios due to concerns about academic evaluation. It is essentially a form of performance anxiety, which is a sensation that someone may experience when there is a lot of pressure to perform well or when performance is crucial. In short, test anxiety is a form of worry that can manifest itself during an exam and has similar symptoms to regular anxiety. According to Malek et al (2013), these symptoms can include sweating, agitation, agitation, dizziness, hand shivering, loss of sleep, uncertainty, and agitation. Exam anxiety makes test takers less focused, which leads to more mistakes (Ohata, 2005). It lowers students' motivation levels, life satisfaction, and academic success. It also makes it challenging for them to concentrate (Stöber & Pekrun, 2004). According to Luigi et al. (2007), higher levels of anxiety are linked to worse academic accomplishment, and test anxiety and student performance are negatively correlated

(Onyeizugbo, 2010). It makes sense, then, to think that a decline in the pupils' test results could be attributed in part to these low self-esteem issues.

The incapacity of a learner to complete mathematical computations, such as an otherwise intelligent person's capacity to handle quantification and mathematics more broadly, is known as mathematics anxiety. Perry (2004). Mathematics anxiety, according to Bursal and Paznokas (2006), is a state of unease brought on by mathematical tasks that pose a threat to one's self-esteem as well as the panic, helplessness, paralysis, and mental disarray that some students experience when faced with a mathematical problem. Oxford and Vordick (2006) have noted that when kids have difficulty with mathematics, mathematics anxiety can be a debilitating illness. According to Ashcraft and Ridley (2005), "mathematics anxiety" encompasses a broad spectrum of unfavorable emotional reactions to mathematics and mathematical circumstances. Anxiety related to mathematics is characterized by tension and fear makes mathematics more difficulties Richardson and Suinn in Unamba, Onyekwere, and Ibe (2016). According to Das and Das (2013), anxiety is a psychological structure that hinders students' ability to think critically and is a major contributing reason to their poor problem-solving performance in mathematics classes. According to Jain and Downson (2009), mathematics anxiety is characterized by low self-esteem, fear, a pessimistic mindset, and a lack of interest in manipulating numbers and solving mathematical problems.

Researchers have been interested in the impact of test anxiety and mathematics anxiety on academic achievement for many years (Cassady and Johnson, 2002; Birjandi and Alemi, 2010; Ranna and Mahmood, 2010; Sub and Prabha, 2003). Studies have indicated that pupils who suffer from test anxiety and math anxiety also have high stress levels, low self-efficacy, fear of failing, low self-esteem, and low self-concept (Cizek, & Burg, 2016; Ergene, 2011). Additionally, a lot of investigations have found that one of the main reasons why students perform poorly at various stages of their educational careers and underachieve is text and math anxiety (Oludipe, 2009). When Khalid and Hasan (2009) looked at the connection between test anxiety and academic success, they discovered that students who performed well academically also had low test anxiety scores. Chapell et al (2005) carried out a study to investigate the connection between academic achievement and test anxiety. They discovered a strong inverse link between test anxiety and academic success.

Hancock (2018) looked on how test anxiety and instructor evaluation techniques affected post-secondary students' motivation and achievement. He discovered statistically significant data showing that all pupils underperformed and lacked motivation to learn, particularly those with high levels of worry. Thus, he came to the conclusion that students who are very test-anxious perform poorly and are less driven to perform when they are exposed to a highly evaluative assessment environment in their educational institution (Hancock, 2018). Research on Mathematics Anxiety and Students' Academic Achievement in a Reciprocal Learning Environment was conducted by Guita and Tan (2018). According to the results, students exposed to RLE performed "very low" on the pretest and "moderate" on the posttest and retention test, while students exposed to non-RLE also performed "very low" on the pretest and "moderate" on the posttest and retention test. Furthermore, for both the RLE and Non-RLE groups, the degree of students' anxiety around mathematics is high prior to therapy and moderates after it.

The mathematics anxiety Performance link: A research by Foley (2017), showed that mathematics anxiety is a significant contributing factor mitigating students' performance. Passolunghi et al. (2016) investigated secondary school children's mathematics performance, working memory, and mathematics anxiety. According to the results, students with HMA reported lower scores on short-term memory and working memory (with related difficulties in inhibiting irrelevant information) than children with LMA. Additionally, students with HMA demonstrated weakness in several measures of mathematics achievement, but not in reading and writing skills. Furthermore, a logistic regression analysis revealed that the most significant factors in identifying children as having HMA or LMA were deficits in fact retrieval and inhibitory control. Ballado (2014) conducted research on junior pre-service teacher education students' academic achievement and mathematics anxiety. The majority of respondents had Moderate to High levels of anxiety, according to the results. The degree of anxiety that male and female students had in arithmetic was significantly different. Achievement in mathematics was found to be significantly inversely correlated with anxiety level. A study on the factors influencing mathematics anxiety and how they affect math performance in a few Bangkok-based international schools was conducted by Shaikh (2013). The findings demonstrated that physical factors had the greatest impact on math performance and that environmental issues cause the greatest amount of anxiety in kids.

As a result, academics have offered a number of strategies for reducing test anxiety and math anxiety while controlling outside variables including the exam room's atmosphere and the conduct of the examiners. Internal elements such as how exam questions are arranged, how well the context is explained, how pupils are instructed, etc. In spite of these efforts to reduce exam anxiety and math anxiety. There are many approaches that can be used to assist children in lowering their anxiety. Finlayson (2014), Onwuegbuzie (2020), and Iossi (2007) offer helpful background reading. A summary of some of the most important intervention techniques that could be used is provided below.

Test anxiety can be reduced by helping individuals become self-aware of their anxiety and the impact it can have on the brain (Uusimaki & Kidman, 2004). Since most students are unaware that test anxiety is a recognized condition, educating them about it in their first lesson or through the materials on this page will help. Activity based learning, online learning is thought to be beneficial as students don't have to worry about looking foolish in front of peers or fear of being called on to answer questions in class. Some teachers are using a flipped classroom approach, in which students study the material online and then teaching time concentrates on group activities to cement learning. Students benefit from time for discussion and practice instead of memorization and rote recitation (Taylor & Mohr, 2001). Peer group learning is effective strategy that tackle issues and receive input from their colleagues, boosts self-assurance and lowers fear. Promote collaborative work in and outside of the classroom.

One-to-one support: Classes for students frequently cover a lot of information in a short amount of time, leaving little opportunity for inquiries (Finlayson, 2014). The majority of schools now feature free Support Centers (FSCs), which offer kids calming, non-threatening experiences in a nurturing setting. FSCs also teach at a slower pace, giving students ample time for independent study and personal growth (Woodard, 2004). Test anxiety can be effectively overcome with this approach (O'Sullivan et al, 2014). Attendance should be increased by promoting the usage of such a service on a regular basis during the course.

High stakes testing, which gives students only one chance to test their knowledge at the end of the course, will negatively affect anxious individuals. Test anxiety is actually decreased and confidence is increased by untimed, low-stakes assessments. Additionally, online testing enables students to monitor their progress without worrying about other students discovering their results.

According to the test-retest idea, giving students the opportunity to retake an identical test helps them cope with past failure sentiments and acts as a safety net. Ideal online examinations have the same questions but different numbers.

Feedback: Test anxiety has a detrimental effect on academic achievement that is lessened by feedback, which is scarce in most courses (Núñez-Peña et al., 2015). However, examples and links to online resources that provide students with an alternative explanation to the lecture notes can be included in online tests as a form of feedback. According to Anderson, Conrad, and Corbett in Alin (2015), immediate feedback shortens the time it takes for students to reach a desired level of knowledge. Students can receive this important feedback on their understanding by attending.

Relevance: Pupils frequently do not grasp the purpose of learning. Using practical, real-world examples can be beneficial. Students will find it easier to connect the lessons learned in project-based learning to their dissertations if the entire process is demonstrated, from study design to results reporting.

Teacher behaviour: Pupils react favorably to enthused professors who exude confidence in them and who use humor or instructional tricks, including having students serve as the source of data (Schadt & Stewart, 2017). These also aid in reducing anxiety.

Writing about anxiety: Before an exam, writing for ten to fifteen minutes helps the brain focus on writing instead of worrying (Ramirez & Beilock 2011). Before taking the test, encourage students who are nervous to write about their worries.

Self-belief: The conviction that one can do a task successfully is known as self-efficacy, and numerous studies have demonstrated a positive correlation between high self-efficacy scores and successful exam performance. According to Perry (2004), students must acknowledge that passing requires work, seek out peer support when necessary, and have faith in their ability to succeed. Teachers' and tutors' encouragement and criticism boost their self-esteem.

Cognitive restructuring: A counseling method called cognitive restructuring can help someone lessen their unpleasant emotional reactions. The goal of therapy is to assist a client in changing the skewed perspective of the world that results from a negative mindset. The goal of cognitive restructuring techniques is to change negative self-talk and distorted thought patterns that result from internalized false beliefs. According to Anagbogu (2008), cognitive restructuring employs supporting tactics, didactic instruction, philosophical debate, persuasion, confrontation,

homework, and tasks to help clients change their behavior. Understanding and reversing negative thought patterns can be accomplished with the help of cognitive restructuring. Examining and questioning unpleasant and negative ideas, as well as often rewriting the negative thinking that underlies them, can be helpful. Cognitive restructuring can be used to alter negative emotions such as hopelessness, remorse, and the belief that one is the worst person on the planet. The method focuses on how ideas, emotions, and feelings interact.

Self-management technique: Self-management approach is the individual use of behavioral modification strategies from psychology that results in the desired behavioral change. Moore and Bandy (2010). The term "self-management technique" describes a person's capacity to control their emotions and the ensuing behavior in ways that are acceptable to society. This covers the way the person manages unfulfilled needs or wants, perseveres in the face of difficulties, and creates objectives for themselves. Self-management techniques are cognitive behavioral strategies that people employ to sustain self-motivation and accomplish personal goals with the assistance of therapists. Initially, a therapist, text, or self-help book may be used to teach the skills. To bring about the intended improvements, it is up to the individual to apply these abilities in practical situations (Susan & Raymond, 2014).

A self-management strategy is a way for a person to take charge of some part of their decision-making and behavior selection. In order to accomplish this, the individual must specify particular behaviors connected to established goals and execute the necessary steps. Within the framework of this work, self-management technique is described as an individual's ability to control their emotions and the behaviors that follow in ways that are socially acceptable. One strategy that has shown promise for enhancing classroom behavior is the self-management technique (Barry and Messer, 2003). According to Mitchem and Young (2001), self-management techniques can be divided into measures based on the concepts of cognitive control strategies or contingency management. Therapies founded on the ideas of contingency management emphasize the relationship between actions and their results. Contingency-based self-management methods include techniques like self-monitoring, self-reward, and self-recording (Stober & Pekrun, 2004). Conversely, cognitive-based self-management techniques highlight the source of the reaction.

Self – instruction: According to Graham and Reid (2016), students can utilize the self-instruction technique as a self-regulation strategy to control their own behavior and govern

themselves as learners. Students use it as a technique to self-tutor and self-monitor their strong emotions. In this instance, the counselors only serve as guides; the students lead the counseling process. As a result, the self-instruction technique is a cognitive learning strategy in which the learner guides and evaluates themselves as they work through the job step by step after it has been broken down into manageable chunks. According to Meichenbaum (2008), there are several stages to the self-instruction strategy: cognitive modeling; overt external guidance; overt self-guidance; faded overt self-guidance; and covert self-instruction. To elaborate, the self-instruction technique can be used to address a wide range of behaviors, including anxiety, aggression, eating disorders, and creative blockages. According to Sarafino (2011), self-instruction is an antecedent assertion that students make to themselves that describes how their behavior is directed or guided. The capacity to cognitively plan, organize, guide, encourage, and assess one's own independent learning without assistance from a teacher is known as self-instruction.

Systematic Desensitization technique: The concept of Systematic Desensitization (SD), also known as relaxation therapy, is based on the idea of eliminating the fear response associated with phobias and anxiety and replacing it with a relaxed response to the stimulus. This is achieved by exposing the client to a low level of the stimulus that causes anxiety and then providing the strong version of the stimulus when the anxiety has subsided. In other words, the steps are repeated until the person stops experiencing anxiety in response to the stimulus. This procedure is predicated on the idea that two opposing emotions of equal strength cannot coexist simultaneously. The aim of this therapy is to let the patient's sentiments of calmness and relaxation take precedence over their sensations of anxiety or boredom. It's a sort of counter-breaking process in which learning something new undermines or eliminates previously established practice.

Previous research on test and mathematics anxiety showed that Music therapy, emotional freedom technique (EFT) was found to be effective in reducing test anxiety and mathematics anxiety in both studies. (Kaur et al (2023). Silke et al (2008) investigated Strategies for reducing test anxiety and optimizing exam preparation in German university students: a prevention-oriented pilot project of the University of Wurzburg. Results showed that Anxiety induction Relaxation techniques Systematic desensitization Anxiety management training, Modeling Stress inoculation training, Cognitive behavior modification Cognitions Cognitive therapies Attentional training Cognitive restructuring. The discussion above has intrigued researchers to investigate effective

strategies to reduce text anxiety as a contributing factor among students in institutions of higher education as it is generally perceiving that institutions of higher education in have very rigid system of tests/examination having high stakes in students' academic career.

Purpose of the study

The main purpose of this study was to assess the Interventional Strategies for Reducing Test and Mathematics Anxiety among Early Childhood Care Education Pre-Service Teachers in tertiary institutions in Imo State. Specifically, the study sought to;

i. To find out the interventional strategies for reducing test anxiety among early childhood care Education Pre-Service Teachers in tertiary institutions in Imo State.

ii. To find out the interventional strategies for reducing mathematics anxiety among early childhood care Education Pre-Service Teachers in tertiary institutions in Imo State.

iii. whether gender difference will exist between male and female teacher's educators on Interventional Strategies for Reducing Test and Mathematics Anxiety among Early Childhood Care Education Pre-Service Teachers in tertiary institutions in Imo State

Research Questions

i. What are the Interventional Strategies for Reducing Test Anxiety among Early Childhood Care Education Pre-Service Teachers in Imo State

ii. What are the Interventional Strategies for Reducing Mathematics Anxiety among Early Childhood Care Education Pre-Service Teachers in Imo State

Hypothesis

The null hypothesis was formulated to guide the study at 0.05 level of confidence.

H_{O1}: There is no significant difference in the mean scores of male and female teacher educators on interventional Strategies for Reducing Test and Mathematics Anxiety among Early Childhood Care Education Pre-Service Teachers in tertiary institutions in Imo State.

Methodology

The research design used in the study was a descriptive survey. All 468 teacher educators at the six schools of the Alvan Ikoku Federal College of Education in Owerri, Imo State, make up the study's population. 414 randomly chosen teacher educators (116 men and 298 women) made up the sample. Assessment of interventional strategies for lowering exam and mathematics anxiety

among pre-service teachers in tertiary institutions is the name of the structured questionnaire used to collect the data. It has a four-point rating system. There are two sections A and B. Section A deals with demographic characteristics which includes information on the gender, department, and school of teachers while section B deals with the objectives the study. Two educational psychology specialists and one measurement and evaluation expert validated the tool. They carefully examined the questionnaire's contents and provided insightful changes and recommendations that resulted in some modifications. The instrument was deemed sufficient after these adjustments and alterations, and the final draft of the questionnaire was created. When the instrument was given to ten teacher educators who were chosen from a single school and who were comparable to the responses in the primary study, its reliability was confirmed. The instrument's reliability was assessed using the Cronbach alpha method, and the result showed an adequate degree of reliability with a value of (0.85). The arithmetic mean was used to answer the stated research questions, while t-test statistic was used in testing the formulated hypotheses at 0.05 alpha level.

Results

Research Question One: What are the intervention strategies for reducing test anxiety among early childhood care education Pre-service teachers in Tertiary Institution of higher learning.

Table 1: Mean and standard deviation on interventional strategies for reducing test anxiety among early childhood care education Pre-Service teachers in Imo State.

S/n	Items	Mean	SD	Decision
1	Test anxiety awareness	3.78	1.3	Accepted
2	Activity based learning	3.67	1.2	Accepted
3	Peer group learning	3.56	1.2	Accepted
4	One-to-one support	3.96	1.4	Accepted
5	Low-stakes testing	3.77	1.3	Accepted
6	Feedback	3.56	1.2	Accepted
7	Relevance	3.56	1.2	Accepted
8	Systematic Desensitization technique	3.45	1.5	Accepted
9	Writing about anxiety	3.50	1.3	Accepted
10	Self-instruction technique	3.00	1.1	Accepted
11	Self-management technique	3.00	1.1	Accepted
12	Cognitive restructuring technique	3.65	1.2	Accepted

Results in table 1 indicated that all the items scored above 2.50. this implies that test anxiety awareness, activity-based learning, peer group learning, one-to-one support, low-stakes testing,

feedback, relevance, systematic desensitization technique, writing about anxiety, seif – management technique and cognitive restructuring technique are interventional strategies for reducing test and mathematics anxiety among early childhood care education pre-service teachers.

Research Question Two: What are the Interventional Strategies for Reducing Mathematics Anxiety among Early Childhood Care Education Pre-Service Teachers in Imo State.

Table 2: Mean and standard deviation on interventional strategies for reducing mathematics anxiety among early childhood care education Pre-Service teachers in Imo State.

S/n	Items	Mean	SD	Decision
1	Test anxiety awareness	1.78	0.2	Rejected
2	Activity based learning	1.34	0.3	Rejected
3	Peer group learning	2.56	1.2	Accepted
4	One-to-one support	3.00	1.1	Accepted
5	Low-stakes testing	3.77	1.3	Accepted
6	Feedback	3.42	1.4	Accepted
7	Relevance	1.06	0.1	Rejected
8	Systematic Desensitization technique	3.37	1.4	Accepted
9	Writing about anxiety	3.30	1.5	Accepted
10	Self-instruction technique	3.00	1.1	Accepted
11	Self-management technique	3.00	1.1	Accepted
12	Cognitive restructuring technique	3.55	1.2	Accepted

Results in table 2 indicated that item 1, 2 and 7 scored below 2.50. while others scored above 2.50 this implies that Peer group learning, one-to-one support, low-stakes testing, feedback, systematic desensitization technique, writing about anxiety, seif – management technique and cognitive restructuring technique are interventional strategies for reducing mathematics anxiety among early childhood care education pre-service teachers.

H_{01}: There is no significant difference in the mean scores of male and female pre-service teachers on interventional Strategies for Reducing Test and Mathematics Anxiety among Early Childhood Care Education Pre-Service Teachers in Imo State.

Table 2: Analysis on gender difference on interventional Strategies for Reducing Test and Mathematics Anxiety

Gender	N	Mean	SD	α	df	t-Cal	t-tab	Decision
Male	116	23.34	3.02	0.05	18	0.82	1.96	Accept
Female	298	22.19	3,11					HO

The result of the t-test shows the calculated t-value of 0.82 is not significant at (P>0.05) the null hypothesis is accepted and the researchers concludes that there is no significant difference in the mean scores on on interventional Strategies for Reducing Test and Mathematics Anxiety among Early Childhood Care Education Pre-Service Teachers in tertiary institutions in Imo State.

Discussion of findings

The results suggest that various interventional strategies have been effective in reducing both test anxiety and mathematics anxiety among early childhood care education pre-service teachers. The key finding is that all the items scored above the criterion mean, indicating a positive impact of these strategies. The fact that test anxiety awareness scored above criterion mean suggests that making pre-service teachers aware of test anxiety and its effects is an essential first step in addressing the issues. This approach not only enhances learning but also creates a positive and supportive learning environment (Finlayson, 2014; Hancock, 2018; Onyeizugbo, 2010). Thus, the finding is accord with the finding of Silke et al (2008) investigated Strategies for reducing test anxiety and optimizing exam preparation in German university students: a prevention-oriented pilot project of the University of Wurzburg. Results showed that Anxiety induction Relaxation techniques Systematic desensitization Anxiety management training, Modeling Stress inoculation training, Cognitive behavior modification Cognitions Cognitive therapies Attentional training Cognitive restructuring.

The statement there is no significant difference in the mean scores on interventional strategies for reducing test and mathematics anxiety among early childhood care education pre-service teachers in tertiary institutions in Imo State suggests that, based on the statistical analysis performed, the various intervention strategies did not show a significant variation in their effectiveness. The lack of a significant difference in mean scores across different intervention strategies implies that, on average, all the strategies evaluated had a similar impact in reducing test and mathematics anxiety among pre-service teachers. While the current study did not find significant differences, it's important to recognize that the effectiveness of intervention strategies can evolve over time (Guita & Tan, 2018). Continuous evaluation and adaptation of strategies based on ongoing feedback and research findings are necessary to ensure their continued relevance and efficacy. The results have implications for educational policymakers and practitioners. If the

strategies are indeed equally effective, it provides flexibility in choosing and implementing interventions based on available resources and contextual factors. The lack of significant differences in this study may prompt further research to explore why certain strategies might be equally effective or whether specific subgroups of pre-service teachers respond differently to different interventions (Onyeizugbo, 2010). Thus, while the absence of a significant difference in mean scores suggests a level playing field among the intervention strategies, it's essential to approach these findings with a nuanced perspective. Consideration of individual needs, ongoing evaluation, and contextual factors will help ensure the continued effectiveness of interventions aimed at reducing test and mathematics anxiety among early childhood care education pre-service teachers in Imo State.

Conclusion

The study comes to the conclusion that interventional strategies for lowering test and mathematics anxiety among pre-service teachers of early childhood care education include test anxiety awareness, activity-based learning, peer group learning, one-on-one support, low-stakes testing, feedback, relevance, systematic desensitization technique, writing about anxiety, self–management technique, and cognitive restructuring technique.

Recommendations

i.   Workshops should be organized for Mathematics and teacher educators to known interventional   strategies for reducing test and mathematics anxiety among pre-service teachers.

ii. It is highly recommended that the teacher educators should continue pursue further studies for professional growth in order to become more effective and efficient especially those in the field of education to enable them handle students with anxiety.

iii. An Anxiety rating scale exam must be conducted every semester by teacher educators to determine and monitor the anxiety of the students.

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