

LEVEL OF TEST ANXIETY ENCOUNTERED BY THE BS CRIMINOLOGY BOARD EXAMINEES: BASIS FOR A PROPOSED PSYCHOLOGICAL INTERVENTION PROGRAM

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ABSTRACT

This study determined the level of anxiety as to its physiological and psychological manifestations as encountered by BS criminology board examinees. Eighty-four (84) BS Criminology board examinees took part in this study. The Test Anxiety Questionnaire (Nist and Diehl, 1990) was utilized to ascertain the level of test anxiety in terms of its physiological manifestations and to determine the psychological manifestations of test anxiety, the Westside Test Anxiety Scale (Driscoll, (2004) was used. Descriptive method of research was utilized employing mean scores to describe the board examinees' level of test anxiety. Results revealed that majority of the participants had "little anxiety" as to the physiological manifestations of test anxiety and a "moderately high-test anxiety level" as to its psychological manifestations. A psychological intervention program was proposed geared towards the alleviation of anxiety before and during test taking.

Keywords: anxiety, physiological manifestation of test anxiety, psychological manifestations of test anxiety, test anxiety intervention program

INTRODUCTION

Test anxiety is a feeling of worry, nervousness, distress and apprehension, these refers to the affective responses that an individual experienced during exams. It is the reaction to stimuli that is linked with a person's experience of test taking (Ping, Krishnaswamy & Subramania, 2008). Our mind recognizes a nearing examination as a threat and then established a cascade of hormones that readies the body for a fast response in the face of this threat, which is the "fight" or "flight" response. Anxiety is a normal experience during examinations, it encompasses feelings of worry, tension or uneasiness that occur before, during or after an exam (Hanoski, 2002) but too much anxiety may be harmful to exam performance (Dantoft, 2014). In some ways, test takers may find the experience of test anxiety to be helpful as it can be a motivating force needed to stay focused during the exam. However, in some cases, test anxiety can become so overwhelming and extremely upsetting that leads to a negative influence on one's performance on a test (Hanoski, 2002).

The symptoms of test anxiety differ significantly and ranges from mild to severe. Mild symptoms of test anxiety make test takers still manage to do fairly well on exams while other test takers are weakened by their anxiety, thus performs poor on tests or worst may even experience panic attacks before or during exams. Sweating, shaking, rapid heartbeat, dry mouth, fainting and nausea are the physical symptoms of test anxiety. Milder cases of test anxiety can make test taker feel "butterflies" in the stomach, while a more severe case can essentially make test takers to become physically sick (Cherry, 2014). Severe cases of test

anxiety can become so intense that students will end up dropping out of school in order to avoid the source of their fear.

Psychological manifestations of test anxiety can make test taker to be mentally blocked and forgets answers to the test, even after a thorough review. Negative self-talk, trouble concentrating, not focused on the test, racing thoughts, thinking negatively, comparing oneself to others, unsure about an answer are common cognitive symptoms of test anxiety (Hanks, 2016).

Anxiety is a condition that can affect anyone from different backgrounds or social groups. A recent study conducted by the Center of Collegiate Mental Health at Penn State involving more than 100,000 students found that more than half of students who sought help pertains to issues on test anxiety (Jackson, 2015). Test anxiety is not easily documented in schools because students hardly refer themselves for emotional concerns, they suffer in silence due to not wanting to be bullied or to get public attention, hence, they under perform in school (Huberty, 2010).

The present study was conceptualized based on the concept that psychosomatic manifestations of anxiety contribute to the participants' performance in the board examination. The Criminal Justice Education Department of Isabela State University Echague Campus have included in their curriculum a subject called course audit, intended for their graduating students. The objective of the subject is to review learned theories and principles in all subject areas of the course that may likely be included in the board examination. However, despite the rigorous and regimented review, during examinations, some students may perform well despite being anxious but not to their full capability; others may perform just adequately and others eventually cannot perform. Yearly though, results of the criminology board examination ranges between 50-75% passing rate surpassing the national passing rate. Nonetheless, to aim for a 100% passing rate is not too ambitious but is attainable. Preparing students for the board examinations not only requires theoretical knowledge but the need to understand where their worries, tensions and fears are coming from is vital in making a board examinee not only imbued with knowledge and skills but also attitudes that are necessary in surpassing their anxieties before and during board examinations. It is then the aim of the present study to physically and psychologically prepare students for the board examination.

Theoretical Explanation of Anxiety

The origin of the theories of anxiety lies in the learning area derived originally from Pavlov and Watson. The main function is to explain and avoid punishment in any form. An individual learns to avoid harmful stimuli through mediating mechanisms. This mediating mechanism is normally called fear or anxiety. Since fear becomes attached to some previously neutral stimuli, hence, it can motivate or reinforce.

The test anxiety paradigm goes beyond worry and emotionality (Lawson, 2006). It encompasses four factors known as tension, apprehension, worry, physiological symptoms, and thoughts that are test irrelevant. Tension expressed by a test taker experienced prior to or during an exam is manifested as distress, uneasiness, anxiety and feeling jittery. Worry are thoughts relative to exam performance particularly thoughts of potential failure, poor performance and consequence of the test. Test - irrelevant thinking are thoughts and concerns that disturbs the test taker's attention and concentration away from the exam. It includes irrelevant information that comes to mind especially unrelated to the exam. Bodily reactions are physiological symptoms before and during an exam. Physiological manifestations of headache, upset stomach, increased heart rate, somatization, sweating is

felt. Psychosomatic manifestations of test anxiety are considered a part of emotionality while worry and test - irrelevant thoughts are part of cognitive processes.

The related study mentioned above provided the overview of the current study. This study will give the Criminal Justice Education Department of Isabela State University Echague Campus a broader understanding on the concept of test anxiety, that way they can incorporate simple exercises to reduce or relieve test anxiety during their course audit and in-house reviews. A psychological intervention program will also be proposed geared towards the reduction of anxiety prior and during examinations.

OBJECTIVES OF THE STUDY

This study aimed to find out the participants' level of test anxiety specifically its physiological and psychological manifestations as reported by the BS Criminology board examinees of Isabela State University Echague Campus. It further aimed at proposing a psychological intervention program based on the board examinees' level of test anxiety.

MATERIALS AND METHODS

Participants

A total of eighty-six (86) BS Criminology graduates batch 2015-2016 of Isabela State University Echague Campus were expected to take the Licensure Board Examination last October 28-30, 2016 but only eighty-four (84) BS criminology graduates came to the Professional Regulatory Commission (PRC) to apply for the board examination and they were identified as participants of the study.

were male dominated with 61.9% and 38.1% are female. With the highest percentage of 34.5% from the participants are 20 years old. Fifty-four (54) participants took their in-house review at Isabela State University Echague Campus, eleven (11) participants from Isabela State University Cauayan City, eleven (11) from Saint Mary's University, Bayombong Nueva Vizcaya, six (6) participants from Baguio City, one (1) participants from Metro Manila, and one (1) participant had self-review.

Research Design

The present study described the level of test anxiety of the BS Criminology Board Examinees as basis for the design of a proposed psychological intervention program. To answer the objective posted, the study utilized a descriptive research design where it aimed to describe systematically a situation, a condition or area of interest factually and accurately (Salmorin, 2006). Hence, it is concerned with collection of data in order to describe the nature of the variables as it exists during the time of investigation.

Research Instrument

To attain the objectives of the study, two sets of survey questionnaire were used to gather the needed information. To measure the level of test anxiety specifically its physiological manifestation, the Test Anxiety Questionnaire which was developed by Nist and Diehl (1990) was used. The short questionnaire aims to determine if a test taker may feel mild or severe case of test anxiety anchored through a 5 - point likert scale of never to always. A scale of .90 describes the reliability coefficient (Chronbach's alpha) of the Test Anxiety Questionnaire (Ogundokun, 2011). For the level of anxiety, add all the answers of each participant and group them according to which ranges they belong. For overall score of participants' level of test anxiety, the following ranges and descriptive equivalent as indicated in the test scoring were followed:

Scoring	Descriptive Equivalent
10 – 19	No test anxiety
20-35	Little anxiety
36 and above	Unhealthy level of test anxiety

To ascertain participants' level of test anxiety as to its psychological manifestations, the Westside Test Anxiety Scale by Richard Driscoll was used. It emphasizes strongly on test impairments. It measures worry, which impairs performance. Responses are placed on a likert scale from extremely high anxiety to comfortably low-test anxiety.

The validation criteria for the Westside anxiety questionnaire used correlations between anxiety-reduction as measured by the scale and improvements in test performance. The questionnaire validation involves subjects from two distinct samples: 25 anxious college students who are on academic probation, and 34 anxious fifth grade students. They were divided into Intervention and Control groups, with the Intervention groups receiving an anxiety-reduction training. Students' anxiety scores and test scores were determined prior to the study and after the test-reduction interventions. Anxiety reduction benefits as measured by the Westside scale correlated .49 and .40. This indicate that the Westside scale is a reliable and valid measure of test - anxiety impairment and can be considered by intervention programs to screen for test - anxiety impairments. For use in the present study, the overall interpretation of scores, the following ranges and descriptive equivalent were used:

1.0-1.49	Normal or average test anxiety/Comfortably low-test anxiety
1.5 – 2.49	Slight normal test anxiety
2.5 - 3.49	Moderately high-test anxiety
3.5 – 4.4.9	High test anxiety
4.5 - 5.0	Extremely high anxiety

Research Procedure

There were various steps followed in conducting the study. It underwent several phases of data gathering procedures. These procedures guided the researcher to achieve the objectives of the study. The researcher coordinated with the participants of the study through social media and phone calls as to their availability. The survey questionnaire was administered a week before the day of the board examination. This is intentionally done to get a true measure of test anxiety. For those who had their review in Manila, Baguio City, Bayombong Nueva Vizcaya and Cauayan City, they were personally visited by the researchers to gather data necessary for the present study.

Statistical Treatment

Descriptive analysis employing frequency counts and weighted mean were used to describe the level of test anxiety among BS Criminology board examinees.

RESULTS AND DISCUSSIONS

Table 1. Physiological Manifestations of Test Anxiety

S. No.	Items	Mean	Descriptive Equivalent
1	I have visible signs of nervousness such as sweaty palms, shaky hands, etc., before a test.	3.1	Sometimes
2	I have “butterflies” in my stomach	2.65	Sometimes
3	I feel nauseated before a test.	2.58	Sometimes
4	I read through the test and feel that I do not know any of the answers.	2.96	Sometimes
5	I panic before and during a test.	3.11	Sometimes
6	My mind goes blank during a test.	2.88	Sometimes
7	I remember the information that I blanked on once I get out of the testing situation.	3.13	Sometimes
8	I have trouble sleeping the night before a test.	3.17	Sometimes
9	I make mistakes on easy questions or put answers in the wrong place.	3.25	Sometimes
10	I have trouble choosing answers.	3.35	Sometimes

Table 2. Participants’ Level of Test Anxiety as to its Physiological Manifestations

Level of Test Anxiety as to its Physiological Manifestations	f n=84	Mean Score
No test anxiety	3	17.3
Little anxiety	69	29.8
Unhealthy anxiety	12	38.5

The physiological manifestations of test anxiety revealed that participants’ “sometimes” “have troubles choosing answers” with highest mean of 3.35; followed by “I make mistakes on easy questions or put answers in the wrong place” with a mean of 3.25 and “I have trouble sleeping the night before a test with a mean of 3.17. These findings mean that majority of the participants had shown “little test anxiety” level specifically sixty-nine (69) of the participants were experiencing little anxiety; followed by twelve (12) participants with unhealthy level of anxiety and three (3) participants with no test anxiety with mean scores of 29.8, 38.5 and 17.3 respectively.

The “little anxiety” reported by the participants imply that the physiological manifestation of test anxiety is typical and can aid in sharpening their mind and focus their attention to the test (Kader, 2016). A little anxiety can give a test taker just the right amount of energy needed for optimum performance. It can intensify one’s consciousness and refine reflexes, which allows to accomplish a test more quickly and can even help remember information already studied. A little worry is usually good for test takers for it keeps them alert, attentive, focused and task-oriented (Nentwig, 2016).

However, insomnia, loss of appetite, and sometimes even hair loss are consequences of high level of test anxiety, this in turn may lead to poor test performance. (Nentwig, 2016). Furthermore, excessive worry can be very weakening and devastating that leads to mental block and other physiological problems.

Table 2. Psychological Manifestations of Test Anxiety

S.No.	Items	Mean	Descriptive Equivalent
1	The closer I am to a major exam, the harder it is for me to concentrate on the material.	3.2	Moderately high-test anxiety
2	When I study, I worry that I will not remember the material on the exam.	3.3	Moderately high-test anxiety
3	During important exams, I think that I am doing awful or that I may fail.	3.0	Moderately high-test anxiety
4	I lose focus on important exams, and I cannot remember material that I knew before the exam.	3.0	Moderately high-test anxiety
5	I finally remember the answer to exam questions after the exam is already over.	3.2	Moderately high-test anxiety
6	I worry so much before a major exam that I am to worn out to do my best on the exam.	3.5	Moderately high-test anxiety
7	I feel out of sorts or not really myself when I take important exams.	3.0	Moderately high-test anxiety
8	I find that my mind sometimes wanders when I am taking important exams.	3.2	Moderately high-test anxiety
9	After an exam, I worry about whether I did well enough.	3.3	Moderately high-test anxiety
10	I struggle with writing assignments or avoid them as long as I can. I feel that whatever I do will not be good enough.	3.0	Moderately high-test anxiety

All of the parameters under the psychological manifestations of test anxiety were reported by the participants to be “moderately high level of test anxiety” topped by “I worry so much before a major exam that I am to worn out to do my best on the exam” with a highest mean of 3.35; followed by “When I study, I worry that I will not remember the material on the exam” and “After an exam, I worry about whether I did well enough” both with mean scores of 3.3; “The closer I am to a major exam, the harder it is for me to concentrate on the material”, “I finally remember the answer to exam questions after the exam is already over” and “I find that my mind sometimes wanders when I am taking important exams” all three parameters with mean scores of 3.2.

A certain level of anxiety is required for good performance, it can serve as a motivating factor but when anxiety increases beyond the normal level it brings in a negative influence leading to low performance. When students underperform due to high levels of anxiety, then test anxiety is indeed potentially serious. The tensions, worries, apprehensions, nervousness and self-doubt felt before a test becomes so overwhelming and intense that it impacts attention and concentration on the exam. Hence, high anxious individuals are vulnerable to distraction which will not give students optimal testing results (Lawson, 2006).

Based on the findings of the present study, THE PSYCHOLOGICAL INTERVENTION PROGRAM is hereby proposed.

Rationale

Taking the board examination entails psychosomatic manifestations of anxiety with which every examinee need to conquer to perform at their best during the board examinations. These examination places a lot of pressure for any student and it can be downright disabling. During exam, most students experience some level of anxiety which a psychologist must take action to help these board examinees conquer their fears, worries and apprehensions. With so doing, their sense of well-being and their self-confidence to perform better during the board exam may be established.

The Psychological Intervention Program

This program is designed and proposed primarily to take an initial step to help board examinees alleviate test anxiety and to perform at their best despite the anxiety felt. This intervention program is proposed to be conducted twice a week. Each activity to be conducted following time frame of 10-15 minutes presentation of the overview of the activity; 10-15 minutes administration of the activity and 10-20 minutes processing of the activity.

The intervention program will specifically follow three main phases of a Psychological skills program: a). the educational phase- developing the understanding and importance of the intervention program; b). the acquisition phase- participants learn how to use Psychological skills and methods and how best to implement them. This aspect of the test anxiety intervention program is designed tailored-fit to the needs of board examinees and; c). the practice phase- this phase consists of the hand-over of psychological skill from practice and simulated situations to actual test taking (Horn, 2002).

The two types of anxieties that are significant to any performance are cognitive anxiety and somatic anxiety. The cognitive anxiety refers to the mental factor of anxiety caused by negative anticipations about success or by negative self-evaluation, worry about performance, inability to concentrate and disrupted attention. In other words, cognitive anxiety is characterized by apprehension and worry or the fear from anticipated consequences of failure. The somatic anxiety refers to the physiological factor of anxiety triggered by stimulation of the autonomic systems. It is manifested as dry throat, muscular tension, rapid heart rate, nervousness, rapid breathing (Craft et al., 2003). It is the factor of test anxiety that embodies the perceptions of the psychological stress to the physiological response (Mizuguchi et al., 2012).

The test anxiety intervention program proposed here incorporated controlling negative thoughts, building self-confidence, and the ability to focus and pay attention:

1. A positive attitude towards a test can be worked out through visualization and imagery. Visualization and imagery has been described utilizing a wide range of terms which include mental rehearsal, mental practice, movement imagery, motor

imagery, kinesthetic imagery, visuomotor imagery and internal imagery (MacAvinue & Robertson, 2018; Morris, Spittle & Watt, 2005). It provides an experience which is purposely created or re-created by using and relating all the senses (visual, kinesthetic, auditory, and olfactory) within the mind without external stimuli (Callow, Hardy & Hall, 2001; Vealey & Greenleaf, 2006). Various types of brain imaging and reported that mental imagery uses much of the same portion of the brain as the same manner during actual sensory and motor experience (Kosslyn, Ganis, Thompson, 2001). In other words, visual imagery utilizes the same neuronal substrates as actual seeing, hearing, tasting, smelling and feeling; also, the same areas used in memory, emotion and motor control are activated by imagery as by actual experience (Munzert, Lorey & Zentgraf, 2009). Hence, even though the entire experience happens cognitively, the formation or re-formation of an experience in the mind is similar to actual sensory experience which confirms the effectiveness and efficacy of visualization and imagery.

The activity: conceptualize a script that will boost a positive attitude towards test taking.

2. In enhancing board examinees' self-confidence, the power of positive self-talk and positive self-affirmations are proposed. Documented literatures (Hardy, Gammage & Hall, 2001; Fletcher & Hanton, 2001) revealed the influence of positive self-talk in enhancing self-confidence as a motivational strategy to augment acquisition of skill and be able to put attention and focus on the task at hand. Self-talk has been illustrated as a mental conversation (St. Clair Gibson & Foster, 2007). Several other descriptions emerge, defining self-talk as a personal speech, inner discourse, egocentric talk, self-communicative dialogue and self-verbalization speech (Morin, 2005; Binkofski, Amunts & Stephan, 2005). In other words, self-talk is multidimensional and a dynamic phenomenon that deals with the verbalization of what is in the mind as they address themselves. The technique of positive self-talk intentionally implants specific thoughts into the brain, thus, positive self-talk acts as a motivating force. Positive or negative thoughts or beliefs are engraved into our brain in neural pathways. Incoming information pass through on these neural pathways for interpretation in the brain, therefore, if one desires to change irrational thoughts into an empowering thought, he must rewire the negative track created in the brain (Yantis, 2008).

The activity: Instruct students to work in pairs; give each pair a list of negative statements. One student will be tasked to read the negative statement to his/her partner. Instruct the other student to re-word/re-state the negative statements into a positive statement and to say it out loud. For example: if the statement read "you are a loser"; the other student will re-word it into "I am a winner!". After the pair had completed the entire list, they will be asked to switch roles.

3. Another psychological skill proposed is the ability to pay attention. Attention was originally defined by psychologist, William James as the taking control of the mind, in a well-defined form where a simultaneous train of thoughts take place. It signifies disengagement from some things in order to manage other thoughts productively. To illustrate this, consider attention as a highlighter. When a section of a book is highlighted, it stands out making you to focus your interest on that area. Hence, through proper attention, it allows you to ignore information, sensations and perceptions that are not significant at the moment and instead focus your energy on the information that is important, that is, the highlighted information. To elaborate

further, the human brain comprises billions of neurons and trillions of synapses, making up a system of indescribable intricate networks (Yantis, 2008) this indicates the capacity of the human brain to process several pieces of information simultaneously. During a test, a board examinee is overwhelmed with multifarious stimuli both internal and external that are linked to the disruption of attention.

The activity: students will be asked to examine an object while being presented with a set of distractions. Students will work in pairs. Student #1 will be given a piece of paper with a single dot in the center, while student #2 will have a list of negative statements that will serve as distractions. Instruct student #1 to maintain his/her focus on the dot throughout the exercise and try to disregard the distracting statements. If distracting thoughts enter the student's consciousness, the thoughts should be redirected back to the object. While student #2 is instructed to read aloud the list of negative statements (as a distraction). This exercise can successfully train students to refocus their attention toward proper cues.

CONCLUSIONS AND RECOMMENDATIONS

Board examinees do experience psychosomatic manifestations of test anxieties but level of anxieties may change from time to time depending on prevailing circumstances. Although a certain amount of anxiety is required as a force towards positive action, an excess of it could be detrimental to their well-being and may greatly contribute to their performance in the test.

Board examinees or even students who are to take major examinations will be benefited in knowing and understanding the influence of anxiety on test performance, hence, be able to respond to their anxiety positively. From this perspective, anxiety is therefore learned and once learned, motivates adaptive behaviors (Strongman, 1995).

The "little anxiety" physiologically manifested by the participants are typical manifestations when one is anxious, however, the psychological manifestations reported as "moderately high" test anxiety can lead into a conclusion of the need to emotionally and psychologically prepare them for the board examination. Hence, this should be dealt with.

The present findings were based mainly on the reported level of test anxiety of the BS criminology board examinees as manifested physiologically and psychologically. A psychological intervention program particularly a test anxiety reduction program was not yet administered. It is then recommended that the proposed test anxiety intervention program be tried out with the help of a psychologist. A follow up research may be carried out to assess the effectiveness of the intervention program in reducing test anxiety.

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