

Dissertation Chapter – Introduction

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### Abstract

The purpose of this introductory chapter is to highlight test anxiety and situation-specific trait anxiety present in the literature. The chapter mainly focuses on test anxiety and its effects on performance, the studies that interpret anxiety and two dimensions of anxiety reactivity and anxiety perseverance. Basically, several studies have argued that test anxiety is dependent on the situation and the prevailing conditions. The researcher acknowledges the need for an in-depth search for certain factors that one should take into consideration whenever they conduct the test. He also examines the fact that it is possible to view trait anxiety from two angles. In this way, the study will contribute to the understanding of various dimensions of test anxiety.

*Key words:* test anxiety, anxiety reactivity, anxiety perseverance, performance

## Dissertation Chapter

### **Introduction**

Trait anxiety is a single construct that reflects personal differences in the way people experience symptoms of anxiety. It is measured through specially designed questionnaires such as Spielberger Trait Anxiety Inventory. Research on trait anxiety has revealed that one can view it from two angles (Ackerman & Heggstad, 1997). The perspectives explain independent differences in the way different persons perform the test. The first is anxiety reactivity dimension based on the assumption that chances for experiencing anxious reaction to a particular situation is dependent on the prevailing conditions in the environment. The second is anxiety perseveration that reflects anxiety symptoms that emerge once a person experiences anxiety.

As test anxiety is dependent on the situation and the prevailing conditions, it is essential to take certain factors into consideration whenever one conducts the test. Hereby, one of the considerations should be the assessment of the extent that the test score will be systematically evaluated to produce the desired results in the form of participants' ability to take the test. Moreover, there is a need for a means of correcting the test scores in case the researcher realizes there are elements that could put constraints on the proper analysis and evaluation of the results.

Research findings by Mankus, Aldao, Kerns, Mayville, and Mennin (2013) indicated that any researcher should take the validity of intelligent tests under consideration as it affects the conclusions that they make from the scores. One of the common mistakes made in anxiety tests is the assumptions that researchers make with regard to the correlation of intelligent test and the criteria used in conducting the test. In most cases, the assumptions are likely to introduce bias in making inferences from the test scores. This aspect is a point of an ongoing debate among the

researchers. Thus, in his analysis, Putwain (2008) has argued for the essence of test anxiety as an important aspect in the correlation studies that compare anxiety test results.

Bonaccio, Reeve and Winford (2012) focused on the role that test anxiety plays in the continuous latent differences in the functioning of the test items. A continuous factor is important because it allows the researcher to address similar issues and structural relationships between tests, test anxiety, and circumstantial factors during the actual testing. In fact, numerous literary works supported this approach that utilized test results from the self-reported questionnaires that included test scores, anxiety reactivity and anxiety perseverance contributors (Bonaccio et al., 2012). The model used in the research indicated that practical settings were important determinants of reactivity or perseverance of the participants when exposed to anxiety tests. Moreover, the selection process impacted on the outcome of the test as participants that were selected through a certain process were more likely to experience anxiety reactivity as opposed to anxiety perseverance; the same is true with anxiety perseverance.

According to Bar-Haim, Lamy, Pergamin, Bakermans-Kranenburg, and Van Ijzendoorn (2007), the situation and the participant in test anxiety function as the source of anxiety during the test. There are a number of important spheres due to which participants perceive the test and the situation differently. Some of the domains encourage anxiety, while others may hinder its development. Contemporary research and literature on test anxiety indicate that previous experiences of participants can significantly influence reactivity or perseverance to the anxiety test (Eysenck, Derakshan, Santos, & Calvo, 2007). The knowledge of participants of such tests, their difficulties and the intention of the test score can impact on the outcome of test anxiety. In most cases when researchers are going to use test results for making important decisions, the participants can adjust the way they perceive the test in order to suit the situation.

It is crucial to consider self-perception of the participants as an important determinant in the way the individual expects the outcomes of the test to be. For instance, the perception that one is adequately prepared for an examination can boost their self-efficacy and the competence that they put in the test. On the other hand, Mateo, Blasco-Lafarga, Mart'Inez-Navarro, Guzm'An, and Zabala (2012) observed that prediction of failure can lead to low self-esteem and hence incompetence while performing the test.

However, some individuals participating in the test can draw motivation from past failures and, therefore, enhance their reactivity or perseverance of the test. Consequently, this aspect influences the test score in the anxiety test as participants adjust to the situation in line with their past experiences. Similarly, the absence of confidence, the desire to achieve perfection, maladaptive perfectionism, and emotional stability can affect the test scores in test anxiety (Mowbray, 2012). The perception of self is reflected in the belief about ones characteristics that implies the trait or state of being.

Anxiety reactivity and anxiety perseverance are closely related to the outcome of the test scores in test anxiety (Kumke, 2008).. The two are connected to gender as they start to appear among male and female students at an early age. The prevalence of anxiety disorders is considerably higher in women than in men. The level of anxiety in a group of adolescents rises significantly in female participants (Nilsson, Buchholz, & Thunberg, 2012). The level of anxiety is also linked to the social and economic conditions and the perception of individual competence triggered by the personal perception of the ability to deal with anxiety. In most cases, female participants are more prone to negative perception of their ability to deal with anxiety-causing factors and are, therefore, more likely to experience anxiety reactivity as opposed to anxiety perseverance. Reeve and Bonaccio (2008) observed that the trend is opposite in the male

participants with regard to test anxiety as they are more likely to experience the opposite side of the trend and a higher level of competence activated by the anxiety-causing factor.

### **Study Justification**

Numerous researches show that test anxiety involves many negative effects on performance tests, including poor performance, low motivation, negative self-evaluation beliefs and low concentration. It is also linked to an increase in school dropout rates and general anxiety (Hancock, 2001; Tobias, 1979, Whitaker Sena, Lowe, & Lee, 2007). However, as Reeve, Bonaccio, and Charles (2008) noted, very few studies have investigated the antecedents of TA or the mechanisms with the help of which TA affects performance. The proposed study aims to investigate the links between TA and test performance by considering a new conceptualization of general anxiety that has been under-investigated. Ziedener (1998) states that test anxiety refers to anxiety that emerges from the appraisal of being tested as menacing. Fishel (2007).), on the other hand, perceive test anxiety as a scientific construct that is essentially the set of behavioral, physiological and phenomenological responses that attend concern about probable negative outcomes of failure in an exam or similar evaluated situation.

With testing being nearly unavoidable in the current society, whether for academic advancement or personnel selection, the presence of TA is a major concern as it is likely to negatively affect individuals' performance and, perhaps, affect the validity of inferences made from test scores (Reeve & Bonaccio, 2008). Apparently, it is vital to further examine the components of TA to increase the understanding of the role of TA in test performance. Several researchers have evaluated the definitions of test anxiety. According to the research by Reeve, Bonaccio and Charles (2008), test anxiety derives from the appraisals resulting from threatening experiences and behavior. In contemporary world, where high testing has been given premium, it

is essential to have a clear understanding of the relationship between test performance and anxiety.

A number of studies have confirmed the related role of temperament and anxiety behavior among individuals. However, there are little investigations that link anxiety reactivity and anxiety perseverance to the individual vulnerability or exposure to these effects. A hierarchical model of vulnerability factors in participants of a study by Rudaizky, Basanovic and MacLeod (2014) generalized anxiety-related disorders as an agent for reactivity or perseverance of the participants. Thus, a negative belief of the participant is a factor that determines whether an individual is going to experience reactive or perseverance anxiety.

The awareness of the consequences of anxiety also indicated a mediation element between reactivity and perseverance and the overall performance of the participant. Moreover, a partial mediation effect of anxiety determined the impact that an individual experiences whenever they face a stressor. Regulative Theory of Temperament identifies six traits of the participant in test anxiety, namely perseveration, sensory sensitivity, endurance, briskness, activity and emotional reactivity (See, MacLeod, & Bridle, 2009). According to the Regulative Theory of Temperament, a person's temperament is indicative of their ability to moderate behavior that can affect reactivity or perseverance of an individual to a stressor hence the dimension to which such individual adapts when facing a stressful situation.

Test anxiety appears as the response that one has after undergoing anxiety test. The process involves various emotions that range from being nervous to being worried and tensed. The revelation of situation-specific anxiety appears in case of the increase in blood pressure, rapid heartbeat, dryness of the mouth, and tremors, among other signs. According to the research done by Spielberger (1983), the intensity of the test defines the consequences that are revealed in

the person performing the test. In most cases, many attendants, especially students, may consider it threatening hence the effects that result from the test. In fact, some people are likely to experience different results due to a variety of factors that prevail during the testing. Among these factors are the difficulty in retrieving the information at the time of undergoing the anxiety test, challenges with the coding system, and poor study skills (Tluczek, Henriques, & Brown, 2009).

Test anxiety is a condition when an individual is in a state of agitation or distress. It is characterized by emotional reactions that some people exhibit when they are in certain conditions. Thus, the feeling affects their performance by influencing individual's progress and the ultimate outcome of the process (Zeidner, 2007). Test anxiety interferes with the ability of the person to succeed even in situations when they could perform well. Normally, anxiety is a normal experience for individuals who are preparing to face an unfamiliar situation. However, immensely high degree of anxiety is harmful as it lowers the level of performance that a person would achieve if they were not excessively anxious.

Test anxiety has different symptoms that range from emotional and mental to physical conditions that a person undergoes whenever they are about to face a certain situation. According to Dashef, Espey and Lazarus (1994), there are three levels of anxiety that a person may experience. Talking about the physical component, it is mainly characterized by excessive sweating, shortness of breath, and feeling of the faint. These physical symptoms can lead to panic attack in a manner that makes an individual have short breath or a feeling of discomfort. Among emotional symptoms, the person may have difficulty in concentrating on a particular subject and have challenges when it comes to organizing the thoughts. They may also experience



negative thoughts about themselves, be indecisive about the next step, and often experience hallucinations when being about to undergo a certain activity.

In a study to determine the causes of test anxiety and the relationship between the causes and the response mechanism, Shapiro, Schwartz and Bonner (1998) observed several elements. The first is the lack of proper preparation for the test hence the belief that performance will not be reflective of the actual status of an individual. Anxiety reactivity is an aspect of the rushed entry into a test without prior preparation. The fear of failure is another cause of anxiety resulting from excessive worry about the rest of the participants in a test. Shapiro, Shapiro & Schwartz (2000) argued that the pressure to perform well in a test is a motivator for good performance (Palan & Chandwani, 1990). Nonetheless, one should not connect this with self-worth of the participant as the only determinant of person's ability to perform. The history of test performance can also be a source of anxiety and may contribute to anxiety reactivity or anxiety perseverance in cases when the person wants to maintain or improve their performance in a test. Furthermore, previous experiences that an individual has in a test invariably impact on the preparedness and motivation that participants usually have before undergoing a test (Zeidner, 1990).

The Pielberger State-Trait Anxiety Inventory is the most widely applied tool when determining the anxiety trait (Reeve & Bonaccio, 2008). The use of the tool helps to assess the period taken by someone to experience the signs that are linked to anxiety. Researchers using the tool can evaluate the applicability of the assessment criteria to clinical anxiety of an individual. Moreover, the tool employs two dimensions, which are important when evaluating multiple levels and aspects of anxiety (Powell, 2004). Anxiety reactivity and anxiety perseverance are the two most important dimensions of anxiety that require further exploration. The latter is simply a state of anxiety that an individual can experience when they face a situation that have stressors.

Preservation of anxiety is the state with regard to which an individual experiences anxiety whenever they are exposed to stressors (Nilsson, Buchholz, & Thunberg, 2012). Since the experience of the conditions of anxiety can trigger a positive response with regard to the general assumptions made in the STAI-T, the essence of studying the two dimensions is high. The research findings indicated that cause and effect of anxiety reactivity were different from the ones that cause anxiety perseverance.

In conclusion, the study of anxiety reactivity and anxiety perseverance is an area of interest for many researchers (Rudiazky, Basanovic, & MacLeod, 2014). However, the amount of information available for the development of relationship between the two dimensions is not yet well explored in literature. The proposed study seeks to expand the amount of literary works within this domain by applying anxiety reactivity and anxiety perseverance distinctions to better understand the impact of test anxiety on test performance. Specifically, it is vital to investigate the reparability of test anxiety into two components and test the hypothesis. Furthermore, it is crucial to investigate each of the components of test anxiety's independent effects on test performance.

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