

TEST-TAKING ANXIETY OF UNIVERSITY OF TECHNOLOGY' STUDENTS

Ban Kadhim Abed

Department of Computer Sciences, University of Technology

Abstract:

It is to be noticed that increasing of testing in colleges, teachers and instructors need to recognize the role test anxiety plays in students' performance and implement effective strategies to assess students who are over shared this activity. Teachers are responsible to raise and measure students' learning ability within their classrooms; they are also responsible to prepare students for testing .In this respect, teachers must examine, develop and implement strategies to help students receive educational benefits that may increase their test scores (Mc Donald, 2001:90f).

Anxiety today, is a common phenomenon of every day's life. It plays an essential role in human life because all of us are the victims of anxiety in different ways.

For this, a test-taking anxiety questionnaire (Nist and Diehl, 1990:1) was used to measure the degree of test-taking anxiety of 58 B.A. of computer science students. The results show that 50% of the students are experiencing healthy test anxiety and 50% of them are experiencing unhealthy test anxiety and need some help to overcome their anxiety.

Key words: test, anxiety, students.

The purpose of the study:

The present study investigated and evaluated test anxiety of computer science students at the University of Technology and tried to shed light on test anxiety and its causes, characteristics, phases and finally some tips to the students to overcome test anxiety.

Introduction

1. Testing and Test :

The concept of testing is often used to refer to the use of tests or the study of the theory and practice of their use, development, evaluation, etc. Testing has traditionally provided a measure of growth or achievement by which the success of students' learning has been evaluated. Further, testing is viewed as the primary tool of evaluating student performance in colleges and other academic levels. It also goes through other aspects of our lives;

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such as getting a driver's license, applying for a job, or gaining certification for a skill (Mousavi, 1999:404).

Testing is, in fact, concerned with language ability or knowledge against a norm or a criterion. The norm approach requires that the individual be compared with his or her peers, while the criterion means that the individual is compared with a specified level of attainment. In both cases, the assumption is that individuals differ from one another (Davis, 2005:131).

One of the primary causes of stress among students is testing. Incorrectness of what to expect on a test and how to prepare for a test is a reason for this. Moreover, many tests do not always give an exact assessment of student ability and are not perfect. In spite of this, the main method of student evaluation will continue to be exams because they are relatively effective and objective measures of student performance (Chickering and Schlossberg, 1989:153).

The effect that taking a test has upon the positions or opinions of the test is designed to evaluate. It is a source of error in survey research, particularly where pre-tests are used which may alter attitudes independently of any experimental manipulation (Riazi, 1999:280).

A test is any procedure used to measure a factor or assess some ability. As a type of measurement, a test quantifies features of individuals according to precise procedures. In general, what separates a test from other types of measurement is that it is planned to obtain a specific sample of behavior. Often tests are used for pedagogical purposes, either as a way of motivating students to study, or as ways of reviewing the material taught, in which no evaluative decision is made on the basis of test results. Tests may also be used for descriptive purposes. The term test, measurement and evaluation are sometimes used interchangeably. However, the term test is usually considered the narrowest of the three terms (Mousavi, 1999: 394-5).

2. Anxiety and Test-Anxiety:

Anxiety is a usual phenomenon of every day's life. All of us are the victims of anxiety in different ways so it plays an important role in human life.

Brown (2007:73) said that test anxiety is "the extent to which learners may worry about themselves and self-efficacy, a person belief in his / her ability to accomplish a task."

Phillips (1992:15) defines test anxiety as the worries and concerns a person holds about taking a test. When high, such anxiety can depress scores.

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In learning , anxiety can interfere with it in a way that anxious student can easily run from study by irrelevant things that are far from study and having difficulty on focusing on subject details . The behaviour of anxious students can be viewed by some people as being afraid from the classroom or the test situation because they have experienced failure or they expected failure or they think that if they seek to gain success they will gain a negative effects. Highly anxious students as some researcher think often go in daydreaming. So we must think about ways of protecting students from that threat concerning those behaviours that may interface with their achievements and productivity. Academic achievements and anxiety have a complex relationship. On simple work, high levels of anxiety may approve performance nevertheless it may interfere with the performance on new or difficult duty assignment. Too high anxiety can stop learning generally and having high anxious students may need from their teachers to build a good relationship that let the students feel not threatened and safe in that environment.

In students' learning and academic performance it is found that anxiety plays important part (Tobias, 1979:573). Reilly and Lewis (1991:104) say that the academic achievements of young people can be handicapped by anxiety. Many things can be a hard task for students for example in case of changing schools, parents divorcing or pressure of work, exams and test. It is said that anxiety is strongly associated with emotional depression.

When an individual comprehends an event as being a threat to the ego or self-esteem, he will be anxious having that basic human emotion consist of fear and uncertainty (Sarason, 1988:30). Anxiety can be helpful in some situations such as avoiding dangerous situations, however it may produce insupportable results when it extremely become big. Testing today is one of the most threatening events that cause anxiety to students. When students experience test anxiety, they will develop a greatest fear of doing poorly on an examination. A variety of negative results including psychological distress, academic underachievement, academic failure, and insecurity comes from that major factor named test anxiety (Hembree, 1988:20). High levels of test anxiety make many good students that have the ability to do well on exams but may not do so. The social emphasis on testing limits the educational and vocational chances of students (Zeidner, 1990:144).

Text anxiety is widespread among students of all academic levels. It can make school very unpleasant and threatening to the self-esteem. Surely, students with severe text anxiety display a lack of self-efficacy and motivation in the classroom. Text anxiety may also cause students to avoid studying which results in poor test scores (Bembenutty, 2008:67).

In all levels of academic achievement and intellectual abilities students can be affected by test anxiety. Test anxiety is characterized by emotional feelings of worry, fear, and understanding and it occurs in different degrees. It can be displayed differently by individuals. As students' move on through their studies in the educational system with additional required testing by educational institutions, a great amount of pressures can negatively affect their performance (Mc Donald, 2001:90f).

3. Components of Test Anxiety:

Zeidner, (1998: 141–160), illustrates that test anxiety is a multi-componential so one must look at each component and how it is related to performance evaluation is more important task than investigating the relation of performance evaluation on an overall test anxiety.

Knox, Schacht and Turner (1993: 295) state that performance anxiety and content (e.g. math) anxiety both are the components of test anxiety. Those both make it hard for students to perform adequately as a consequence of good concentrations on test. Knox et al. also recognize not managing test anxiety and its consequences: “Failure to manage test anxiety can result in failing courses, dropping out of school, a negative self-concept and a low earning potential”.

4. Test Anxiety' Causes :

There are many reasons that cause test anxiety: The first one is deficiency of training and preparation as showed by (a) studying before the night of the exam (b) wrong time management, (c) failure in organizing the information and (d) poor study habits. The second one is concerned by caring about (a) past exams and their performance (b) 'the performance of other students and friends, and (c) failure negative effects .In addition, during an exam, a physical signs of test anxiety may occur to the student like he may feel having an upset stomach, sweat, rapid heartbeat, sweaty palms, headache, and tense muscles. Research has described three models of test anxiety that explain its causes.

The first model is the learning-deficit model (Kleijn et al., 1994: 75), according to it the problem lies not in taking the test but in preparing for the test. Also the student that has high test anxiety according to this model tends to use or have poor learning or study skills in the exam preparation stage (Mealey and Host, 1992: 147-150). The interference model is the second model (Kleijn, et al., 1994:75). In this model the problem of people is, during tests, test anxiety students focus on irrelevant stimuli which negatively affect their performance (Sarason, 1975: 148-152). Diversion from task attention can be classified into two areas, according to Sarason. The first distraction can be classified as physical distraction and including

an increase of awareness in the autonomic activity (e.g. sweaty palms and muscle tension). Inappropriate perception is the second type of distraction such as the student thinks that other students' finishes their work before him and this is because he doesn't know the materials, so he will not pass the exam. If one of these two task-irrelevant cognitions found so the student's performance' quality will be affected. The third model of test anxiety includes bad prepared test student but they think they are well prepared. Doubting about their abilities after the test, this will creates anxiousness during the next test.

5. Test Anxiety' Characteristics

Cognitive, affective, and behavioral are the three major components of test anxiety. From the cognitive view, students who experience test anxiety are worriers lacking self-confidence. Negative thoughts may haunt them that they may doubt about their academic ability and intellectual competence (Sarason, 1986:32).

Furthermore, possible negative results are more likely to be overemphasized and they may feel helpless in the testing situations (Zeidner, 1998:146). The need to answer every question on the test correctly is what some of students may feel. And they may think of themselves as being unqualified, when this does not happen leading them to think of negative thoughts such as, "I knew I was not going to pass this test," "I know I am going to get a poor mark," or "Everyone knows I am not smart."

Having the best chance for academic success, students' negative thinking must be minimized and controlled.

Test anxiety makes some students experienced physiological reactions from the affective view such as: increased sweat, increased heart rate, frequent urination, cold hands, feeling nauseated, dry mouth, and muscle spasms (ibid). Before, during, and even after the test is completed, these reactions may occur. Emotions may come along with the physiological reactions such as worry fear of failure, and therefore panic may happen. Anxiety behaviorally will be shown by test-anxious students like postponing exams and having inefficient study and test-taking skills. Zeidner,(ibid) contends that having more difficult time understanding information and organizing it into larger patterns of meaning , are the symptoms of test-anxious students. In addition to feeling physically tired or exhausted during test organization, some students may not have a healthy diet, fail to have a routinely exercises and have poor sleeping habits.

6. Phases of Test Anxiety

According to some studies, anxiety may be expressed differently during the three phases of testing (test preparation, test performance, and test reflection).

A. Test Preparation Phase

Interference in working memory's articulatory processing loop, are the consequences of high levels of test anxiety for these anxious students, making it difficult to process the information presented to them during a lecture session (Ikeda, Iwanaga, and Seiwa, 1996:162). Students with high levels of test anxiety during the test preparation phase, have a difficulty in learning the material that they will be tested on in the future and retaining it. They always do not realize that they are unprepared for the exam (Everson, Smolaka, and Tobias, 1994:85).

High test anxiety students study more than their low anxiety peers, and it is shown that the high anxiety group reported highly repetitive and less effective methods of study. Those students are more likely to postpone tests because they do not overvalue their preparation (Cassady and Johnson, 2001:270). The coming test will be viewed by the student as a stressful event that the test can cause because of the personal harm that he experienced (on grades, self-esteem, or status). A generalized low self-efficacy for testing is the students' explanation for this sensed threat are that they have (Schutz and David, 2000:295) or that they preferred a specific subject (Everson, et al., 1994:480).

B. Test Performance

Students that have test anxiety have test performance changes based on their study and coping skills (Onwuegbuzie and Daley, 1996:331). Generally, poor study skills' students or students with poor preparation processes face reduced performance no matter what type of test, deficiency of time limit, or low item difficulty (Covington and Omelich, 1987:119).

Students are supposed to come upon retrieval failures if they have enough preparation skills and this happen only in the presence of weakening contextual anxiety. We can often describe the feeling of high cognitive test anxiety students by the action of the escaped material from their minds when entering the testing room, although they know the material before the test. This motivates interference, distractibility, or ineffective usage strategies (Cassady and Johnson, 2001:270).

In addition, the test will be looked over by anxious students when it is first handed out to them, so that they measure the difficulty level of the test and whether or not they can answer, then the students begin to focus on their deficiency in knowledge and consequences of failing, and this

disturbing thought cycle actually will distract them from the task that they should accomplish (Zeidner, 1998:146).

C. Test Reflection Phase

During this phase, the experienced level of test anxiety depends on students' self-efficacy about testing. Not specifying the failure of his or her own actions, and the student continue to fail, he/she will experience higher anxiety levels (Bandalos, Yates, and Thorndike-Christ, 2003:423). Recognizing the effort they put into a task by the students is reflected in their marks that often report lower levels of anxiety.

B. Control of Test Anxiety

Test anxiety is sometime experienced during the college years by most students. It is a natural thing to be a little nervous and actually it increases your adrenaline output. However, keeping the anxiety at a minimum is done by knowing a few tricks, and it will make test-taking a more enjoyable experience.

Moreover, some physical symptoms will appear to some students like headaches, faintness, feeling too hot or too cold, etc. and some students have an emotional symptoms, such as feeling irritable, crying easily, or getting frustrated quickly. The bad effect on thinking ability is the major problem of test anxiety, students may hastening thoughts that are difficult to control or it may make them forget easily (McIntosh, and Noels, 2004:19).

Test anxiety, fortunately, is a well-recognized problem that can be controlled effectively with some tested techniques below (Carnegie Mellon University, 2010:2-4) :

A. Facing problems: when the student is less prepared, he/she will feel most anxious. For that reason, developing good study habits is an important thing. Students can work on their homework and set up times on a regular basis; or during each work session, students can plan to cover a specific quantity of homework.

Students are appropriately able to concentrate free from distraction and fatigue when they Schedule their study time. Students can learn and recognize their individual delaying habits and try to defeat them. Students can look for help if they need help to develop good study skills in a number of ways. They may ask academically successful friends for tips on how they study. In order to force themselves to be conscientious in their study, they can organize study groups with friends.

B. Knowing exams' details: additional bits of information about an exam and finding out about them, greatly help and reduce the anxiety students feel and have. What type of questions that will be on the exam,

how much time will be allotted, how many points each question will worth answering, etc. all that questions can be asked to help students.

- C. Trying to think positively:** Students must try consciously to stop thinking negatively. Students can encourage themselves and think of bright things instead of bad ones. For example students can give themselves a positive encouragement: "things like good attendance, good reading and preparing", those positive thoughts will help the students to bring good feeling and they may say those thoughts aloud to themselves. Repeating encouraging even if the students first don't believe in them, by time it will help them gain confidence.
- D. Dream of success:** a powerful tool for success is Visualization. The student can think of the pages he read and remember them when he is in the exam situation. By this way students can go through the questions confidently, answering each one; turn the exam in; and, finally, receive a good grades. Expecting good things that are going to happen will help the students to face any problem.
- E. Divert from anxiety:** When the students feel that there is an amount of anxiety, they can help and calm themselves by diverting their thinking to something else, for example concentrate on the noise of a fan. If students fill their attention so completely on something else, this will leaves no room for anxious thoughts about the exam.
- F. Breathing exercises:** To fight nervousness and anxiety, deep-breathing exercises are a well-known technique. In exam situation when students feel their hearts rushing or their foreheads sweating, they can force themselves to slow down and take deep, calm breaths. Students can concentrate on the air flowing in and out of their nose and lungs. They can do this for four or five minutes and they may feel much more relaxed.
- G. Imagine the worst:** students can imagine before the exam begins, the worst things that can happen if it goes wrong with them. They can ask themselves the consequences of not passing exams. Those things are not the end of the world. Our fears usually are far more troubling than reality. Students can explore their fears to the point of silliness and they'll seem far less frightening.
- H. The last minute before the exam is not for studying:** it is found that studying right up until the last minute damages student' thoughts more than it helps. Anxiety and confusion will happen to students when they study till the last minutes before the exam. They thinks that they can find a missing points but they can relax and give themselves a calm, positive messages before the exam.

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- I. When the exam is going to begin, enter the classroom:** brainstorming with others is a good study strategy but it is only good before the day of exam. When students enter the classroom before the exam they will overhear other students guessing about what questions might be coming in the exam and at this point listening to all these guesses may weaken their confidence only. So they do not have to enter the classroom until the exam begin and they may trust their will and knowledge and preparation for the exam and it's a good one, no matter how much it differs from others'.
- J. Students must take care of themselves:** poor eating habits, Poor sleep, and deficient exercise are destructive the student' mind as well as to body. Students can eat healthy foods or otherwise bad food make them dull like foods that have high sugar and fat content. They may make some exercises even if only by taking short walks. Doing so helps students to energize their mind and body.
- K. Expect setbacks:** whenever students try to change their behavior, they may always experience setbacks. Students can simply try again with a strong resolution to make things better; if they do, finally they will be better. Students can never let those setbacks defeat them. Bad experience that a student may have will not affect the rest of his studying.

Research Methodology

This study adapted test anxiety questionnaire (Nist and Diehl, 1990:1) to measure the degree of test-taking anxiety of 58 B.A. students / male and female of computer science at the University of Technology. The students' ages ranged from 18 to 20 years, and they are the students of the first stage.

Test anxiety questionnaire: The Test Anxiety Scale (TAS) (Nist and Diehl, 1990:1) was used to measure students' degree of test-taking anxiety. It contains 10 items, indicated whether the student suffer from test anxiety or not and whether the level of anxiety in the student is healthy or not. This questionnaire was checked by four professional ELT professors. This questionnaire originally included a 5-point scale (1= never, 2= rarely, 3= sometimes, 4= often, 5= always).

To ensure the face validity of the questionnaire, it was exposed to jury members who are asked to give their agreement, modification or any additional points concerning the questionnaire. It is necessary to note that the checklist is also judged valid by all of the experts, which means 100% agreement (see table 1).

The students were asked to fill in the questionnaire right after the exam and before they left the examination room. To start with the type of the questions used in our questionnaire, these can be described as

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behaviour/experience questions since they aimed at exploring how the students claim to behave or how they believe they respond to the test tasks. It took the students a maximum of 10 minutes to answer the test-taking anxiety questionnaire (see the items below).

- I have visible signs of nervousness such as shaky hands, sweaty palms, etc. before a test.
- before a test, my stomach is not well.
- I feel nauseated before a test.
- I feel that I do not know any of the answers when I read through the test.
- I panic before and during a test.
- My mind become blank during a test and can't remember anything.
- I remember the information that I forget once I get out of the testing situation.
- I have trouble sleeping the night before a test.
- I put answers in the wrong places or make mistakes on easy questions.
- I have difficulty in choosing answers.

A low score (10-19 points) indicates that the student do not suffer from test anxiety.

Scores between 20 and 30 indicate that, the level of stress and tension is probably healthy, although the student exhibit some of the characteristics of test anxiety.

Scores over 30 suggest that the student is experiencing and have an unhealthy level of test anxiety.

Table 1 (names and positions of jury members)

No.	Academic rank	Name	College
1	Professor	Al-Rifia , Fatin	College of Education/Ibn Rushd/ University of Baghdad, Ph.D.in ELT
2	Assistant Professor	Al-Noori , Bushra	College of Education/Ibn Rushd/ University of Baghdad, Ph.D.in ELT
3	Instructor	Mizher, Dhea'	College of Education/Ibn Rushd/ University of Baghdad, Ph.D.in ELT
4	Instructor	Arif , Ali	College of Education/Ibn Rushd/ University of Baghdad, Ph.D.in ELT

Results and Discussion

The present study investigated and evaluated test anxiety of computer science students at University of Technology. The study concerned with the degree of the general test-taking anxiety of computer science students. Overall results show that just 2 students do not suffer from test anxiety and 30 students exhibit some of the characteristics of test anxiety and finally 26 students is experiencing an unhealthy level of test anxiety(see table2).

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Table 2

Number of students who opted for each choice in the questionnaire N = never, R = rarely, S = sometimes, O = often, A = always

No.	Items	N	R	S	O	A
1	I have visible signs of nervousness such as shaky hands, sweaty palms, etc. before a test	11	14	13	9	11
2	Before a test, my stomach is not well.	9	12	11	12	14
3	I feel nauseated before a test.	16	11	7	11	13
4	I feel that I do not know any of the answers when I read through the test.	4	7	12	11	24
5	I panic before and during a test.	5	13	18	12	10
6	My mind become blank during a test and can't remember anything.	7	14	9	10	18
7	I remember the information that I forget once I get out of the testing situation.	6	10	10	19	13
8	I have trouble sleeping the night before a test.	22	9	12	9	6
9	I put answers in the wrong places or make mistakes on easy questions.	26	12	6	9	6
10	I have difficulty in choosing answers.	6	22	15	10	5

Conclusion

In our competitive society, tests have become a powerful tool for decision making with individuals of all ages that are being evaluated frequently with respect to their achievement and abilities. Consequently, doing better on tests and how to do so has become of a big concern for students and teachers in almost all areas.

It is to be found that the growing of assessment in schools make teachers and instructors need to understand the function anxiety play in student's performance and execute a successful strategies to evaluate students who are around shared this task.

Test anxiety is a matter that affects students from all cultural backgrounds and grade levels. Helping students to learn effectively to manage such anxiety that may occurs is a job that require a full use of your abilities or resources that this requires a true team effort. We must all find actively involved ways in reducing test anxiety , students, parents, teachers, collage counselors, and collage administrators all must work and find solutions to this problem . We live in a test-taking society and students are less likely to perform up and reach to the best accomplishment when they are anxious during tests.

The present study investigated and evaluated test anxiety of computer science students at University of Technology and the results from the questionnaire which was exposed to them to calculate the degree of test anxiety and how those students can overcome test-anxiety and to shed some light on test anxiety and its causes, characteristics and phases.

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القلق من الاختبار لطلاب الجامعة التكنولوجية

الخلاصة

لقد لوحظ انه مع زيادة الاختبارات في الكليات فان المدرسين والمدرسين بحاجة الى التعرف الى الدور الذي يلعبه قلق الامتحان في اداء الطلاب وتطبيق ستراتيجيات فعالة لتقييم اداء الطلاب الذين اشتركوا في هذا النشاط . ان المدرسون هم المسؤولون عن رفع قدرة الطلاب وقياس تعلم الطلاب داخل فصولهم الدراسية . بل هم ايضا مسؤولون عن اعداد الطلبة للاختبار لذلك يجب على المدرسين دراسة وتطوير وتنفيذ ستراتيجيات تساعد الطلاب للحصول على الفوائد التعليمية التي من الممكن ان تزيد من درجاتهم في الاختبار (ماك دونالد 2001: ص 90) اليوم القلق هو ظاهرة شائعة في الحياة وانه يلعب دور اساسي في حياة الانسان لاننا كلنا ضحايا القلق بطرق مختلفة . لذلك تم استخدام استبيان لقياس قلق الاختبار (نست وديل 1990: 1) لقياس درجة قلق الاختبار ل 58 طالب وطالبة من مرحلة البكالوريوس من طلاب قسم علوم الحاسوب . وقد اظهرت النتائج ان 50% من الطلاب يعانون من قلق اختبار صحي وجيد و 50% اخرين يعانون من قلق اختبار غير صحي ويحتاجون بعض المساعدة للتغلب على ذلك القلق .