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Development of the Anxiety Questionnaire (AQ): the Facilitating Anxiety Perspective

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ABSTRACT

Background: The present paper reports on the preliminary development of a self-report instrument intended to measure various aspects of anxiety. Despite the large number of anxiety measures, a large number of these instruments are limited in their scope, generalizability, and their diagnostic and research utility. **Objective:** The Anxiety Questionnaire (AQ) was developed to remedy the problems with existing scales and to identify the type and ascertain the levels of anxiety. **Results:** The instrument consists of 12 subscales assessing, for the first time, Facilitative Language Learning Anxiety, to which a subscale has been specifically devoted, and Language Learning Anxiety alongside other more widely-known anxiety categories. The scale was pilot-tested on 77 BA/BS/BE students of the UTM, Malaysia as they attended regular classes. A reliability analysis was performed among the items of each sub-scale to determine their internal consistency ($\alpha=0.83$). **Conclusion:** Reliability analyses suggested that the AQ is internally consistent, temporarily reliable and a valid measure of the severity of anxiety.

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INTRODUCTION

Anxiety has proven to be an integral part of our modern daily life. While everyone is, naturally, expected to feel anxious on some occasions, intense or extreme anxiety levels have to be studied and are not to be taken for granted. Thus, it is of crucial importance to develop instruments which can validly, reliably and practically assess and discriminate these levels. In fact, some anxiety instruments may be blamed for unclear research findings. Thus, the development of such a scale, the mission envisaged by the present paper, can be considered as a strong response to this call for clarity, precision and accuracy. DeVellis (2012) defines scales as "measurement instruments [...] intended to reveal levels of theoretical variables not readily observable by direct means" (p 8). The writer submits that constructs are more important for researchers than items or scales but the same inaccessible constructs can be assessed indirectly through items (DeVellis: 14). Spector (1992) considers scale development to be a "multi-step process" involving "the precise and clear definition of the construct", i.e. "what that scale is intended to measure", "the design of the scale" (the format, response choices, and the instructions and item stems). Accordingly, an initial item pool will be statistically analyzed, and the initial version will be pilot-tested with subjects who are required to "critique the scale" such that ambiguous or confusing items are identified (pp7-9).

The fact that the experience of anxiety is not uncommon among students coupled with the urgent need to identify and treat anxiety through reliable and valid measures underscore the development of a comprehensive scale capable of covering some hitherto-unknown or least-explored aspects of anxiety. To date, assessment of the role of anxiety in performance has been hampered by the shortcomings of existing rating scales most of which fail to take a bird's-eye view of language learning anxiety within the framework of general anxiety failing to distinguish and/or recognize the existence of facilitative anxiety, a construct as important as debilitating anxiety (Jahangiri, Sharif & Rajab, 2011). Reflecting on the-then available anxiety scales Zeidner (2011) concludes that most scales, despite some attractive psychometrics, suffer from drawbacks such as "threats to construct validity", "incomplete domain coverage", "lack of scale differentiation", not being "sufficiently relevant for clinical purposes", "insufficient attention to the extreme manifestations of anxiety" and "failure to distinguish between adaptive and maladaptive manifestations of anxiety". As a result, there is need for a scale measuring the all-inclusive levels and categories of language learning anxiety and general anxiety on a par. The absence of a universally-accepted instrument measuring the two relativistic rather than absolutistic constructs,

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facilitative and debilitating anxieties, alongside each other makes it difficult to assess the results emanating from research into this relationship.

The Anxiety Questionnaire (AQ) grew out of the recognition that new scales were required to expand the scientific knowledge base concerning the relativism of the construct of anxiety. The scale was designed to alleviate the problems associated with existing scales by providing a multi-dimensional measure of anxiety and its symptoms. It was designed to help identify the severity and the type of anxiety in general and language learning anxiety in particular. The test, employed to provide relevant information to aid in anxiety identification and diagnosis, was developed with the following objectives in mind:

- the provision of reliable, valid and practical assessments of anxiety levels and categories across various fields and disciplines
- identification of normal anxiety as opposed to anxiety problems which are to be dealt with and referred to mental health and counseling professionals.
- identification of suitable candidates for teacher-training centers, research subjects and positions requiring anxiety-management strategies.
- support for psychological/psychiatric counseling, and assist in the identification of severe cases.

The AQ offers the following advantages over other Anxiety Questionnaires: Firstly, the AQ is foreign language neutral/impartial, that is, no specific reference is made to a particular foreign language. Secondly, it can be considered as the first attempt to assess Facilitative Anxiety (FA), Hidden Anxiety and Language Learning Anxiety (LLA) alongside other more extensively-explored categories. Thirdly, it measures anxiety as a multidimensional phenomenon. In other words, the stimuli, the context, the context, coping mechanisms, and the various anxiety-triggering situations are qualified and/or quantified. And fifthly, the identity-codified AQ enjoys both narrative and dichotomous formats thus allowing easy flow of information of possibly sensitive nature whose disclosure some subjects may otherwise find objectionable.

The current AQ has 132 items, 125 in Yes/No format and 7 essay-type questions taking between 20 to 30 minutes to complete depending on reading level. The AQ comprises of several subscales which are introduced to assist educational psychologists in interpreting the results and taking a bird's eye view of the phenomenon while pinpointing the details and the symptoms implicated by anxiety. These are General vs. Generalized Anxiety Disorder, Situation-Specific Anxieties, Social Anxiety, Language Learning Anxiety, Debilitating Anxiety, Facilitating Anxiety, Hidden Anxiety, Physical Indicators, Psychological Indicators, Cause & Effect, Treatments & Coping Mechanisms, and Narratives.

A Likert scale, also known as summated rating scale, is usually employed to measure endorsement of opinions on an underlying construct. In contrast to the majority of anxiety measures and in line with Edmondson's (2005) recommendations, the AQ does not rely on Likert scales for the measurement of the construct relinquishing the Likert scales in favor of the dichotomous check/uncheck format. The rationale for this choice is as follows:

1) Researchers using Likert scales all too subjectively assume equal spacings across the continuum of response items. Whilst Likert scales are truly ordinal and a mean score cannot be used they are employed as an interval scale "with which statistical properties such as the mean can be justifiably used" whose assumption is "downright incorrect" (Edmondson, 2005). In other words, a 1 to 5 ordinal Likert scale does not justify the use of the mean and one cannot argue that the difference between "strongly agree" and "agree" is the same as the difference between "agree" and "undecided". Thus, the assumption of "equal intervals" to use the mean is an "improper assumption" although it is frequently made in research (p 129). Bertram (2006) also distinguishes the following weaknesses for Likert Scales:

- 2) central tendency bias: Participants may avoid extreme response categories
- 3) acquiescence bias: Participants may agree with statements as presented in order to "please" the experimenter
- 4) social desirability bias: Participants may portray themselves in a more socially favourable light rather than being honest
- 5) lack of reproducibility: validity may be difficult to demonstrate (p. 7).

Furthermore, the adoption of the dichotomous format will lessen test time and help avoid fatigue and the consequential inaccuracy on the part of the subjects. More than that, the authors of the present paper noticed the availability of many well-known and highly-recognized scales making use of the Yes/No format including Reynolds, Richmond & Low's (2003) Adult Manifest Anxiety Scale, Watson & Friend's (1969) Fear of Negative Evaluation (FNE) and Social Avoidance and Distress Scale (SAD), and Hodgson & Rachman's (1977) MOCI.

Method:

The development, application, reliability, and the psychometric properties of the AQ are discussed herein. Item inclusion was based on an extensive overview of the literature, narratives of anxious individuals, verbal communications, and academic experience of the researcher developer who examined, inter alia, more than 200 anxiety reports from university students. Prior to the introduction of the finalized scale, several drafts were

contemplated, designed and piloted. To develop the self-report AQ, a 204-item pool was initially drawn. A series of statistical and analytical procedures was undertaken to reduce the item pool. The resulting Anxiety Questionnaire (AQ) is a 132-item scale whose pilot version showed satisfactory internal consistency ($\alpha=0.8379$) being capable of diagnosing the anxiety type and the severity with which subjects experience the phenomenon.

Ideally, the scale should be administered by trained professionals to assist in identifying anxiety types, levels, sources, and coping strategies. The answer sheets can be hand scored with template keys that fit over them. Nevertheless, the results can also be further analyzed by computers. Scoring can be performed holistically (out of 125 points) and analytically (for each subsection on the AQ thus deriving subscale "differential performance" subtotals for all the entirety of the subsections on the AQ. Thus, AQ scores range from 0 to 125 on the holistic level. Sample items include item # 3 which asks whether the individual worries under a wide range of circumstances, e.g. taking exams, driving, speaking with strangers, attending interviews or starting a new thing. The inclusion of this item is intended to specify whether the individual is confronted with the trait anxiety, Generalized Anxiety Disorder (GAD) or situation-specific anxiety). Questions 5 through 18 serve to document situation-specific anxiety categories which presently make the individual anxious such as examinations, meeting strangers, mathematics classes, speaking in public, science classes, dentist's office, and foreign language classes. Some questions pave the way for the assessment of the newly-defined construct "facilitative anxiety" measuring the individual's level of resort to this construct. Examples are: #67- I work better under some anxiety. I fight back. I never give up. I prepare myself. ; 68- It seldom happens that I postpone difficult and anxiety-provoking tasks. ; 69- If I am planning to do something difficult I visualize myself as successfully doing it; and 70- If I am planning to do something difficult or worrying I practice a lot doing it.

Pilot studies are often used by researchers to address a variety of relevant issues, including initial scale development in general and item difficulty, item discrimination, internal consistency, response rates, and parameter estimation in particular. Prior to the deployment of the AQ the instrument had to be pilot-tested. Pilot-testing enabled the researchers to spot flaws before the finalized scale would be conducted. It gave the researchers invaluable insights into directions, administration time, the reliability, and the general understandability of the AQ. The decision to include or exclude separate items was based on observations and/or statistical item analyses during pilot studies.

The pilot study was conducted with 77 bachelor degree students at Universiti Teknologi Malaysia (UTM) to assess the AQ as a self-report instrument to measure the level of anxiety, specify the category, and suggest coping mechanisms. The respondents were requested to answer the items and comment on every aspect of the AQ they deem necessary. This approach was adopted to elicit feedback on the language, the clarity of instructions, and the clarity of the statements. Edwards et al (1997) suggest using 8 to 12 people as research subjects in a pilot study. Therefore, the sample size in this case, $n=77$, can reasonably be thought of as being sufficiently large and representing the target population of anxious students.

Table 1: Summary of respondents' demographic data.

Pilot Study Characteristics	
Purpose(s)	Scale Development
Sampling Techniques	Convenience
Sample Characteristics	Sample size: 77, gender: 23 males & 54 females, age bracket: [21-30], level of education BE/BA/BS students, Language(s) spoken: English, Malay and Mandarin, period of foreign residence: none=60, 1-5 years=12, over 10 years=5.

Current methods of evaluating anxiety fail to adequately ascertain the existence of facilitative anxiety in motivating and challenging individuals to perform at a more optimal and competitive level. The Anxiety Questionnaire (AQ) is developed to help practitioners identify the problem areas in this part of the human affect and offer suggestions to remedy the situation accordingly. The AQ was piloted to address the following issues:

- to ensure that no questions are ambiguous, the correct wording has been used and that the instructions given to the participants are utterly comprehensible.
- to make certain that the correct item ordering has been used
- to see whether the responses provide sufficient discriminatory power to see how long it takes, on average, for the respondents to complete the scale
- to revise the AQ for possible sexually, racially, politically, and religiously biased/loaded material rendering it as balanced, neutral, and impartial as possible.

Results:

The results from student narratives suggest that the items appearing on the AQ were relevant to anxiety with the absolute majority (76 out of 77) students reporting the fact that the AQ assisted them in identifying and fighting against the debilitating effects of anxiety on the one hand and enabling them to recognize how to harness the vast amount of energy locked up in (debilitative) anxiety to their advantage in the form of studying harder, fighting the difficult task (rather than avoiding it), and being more prepared thus making the transition

from debilitating anxiety to its facilitative counterpart. Nevertheless, the students also reported difficulty with some vocabulary items (e.g. “anxious”, “tics”, “pessimistic”, “startle”, and “jaw ache”), frequencies (e.g. sometimes) and negatives (e.g. I never feel happy) requesting the researcher for further explanation. Responses supplied on the narrative subsection of the AQ also pointed out other concerns. Firstly, the students rightly claimed that the scale was too long (This was inevitable due to reliability and scope issues. Furthermore, the researcher may only be interested in a single subscale rather than the entirety of the AQ, e.g. the FA subscale which consists of 11 items.). Secondly, the students once again rightly revealed their concern and annoyance with the repetitive nature of some items which can partly be explained by the inclusion of the contemplated truthfulness assessment items within the scale. In spite of this, all the students completed the scale in less than 55 minutes with the mean time of completion being about 30 minutes with most of the time dedicated to the narrative subscale (It is reasonable to assume that the revised 132-item scale would definitely take shorter to complete than the piloted 204-item scale). This can be accounted for by the format of most items (i.e. Yes/No) which has substantially reduced the administration time. It was evident that the time taken to fill out the scale would further decrease with the omission of poor items in the finalized version (Items revealing low discriminatory power were discarded). As regards the length of the scale, the item pool was kept at a comprehensive minimum number to enhance the reliability of the scale.

To improve the quality of the AQ, item analysis (item difficulty and item discrimination) and reliability analysis (Cronbach's alpha) were conducted. Statistical analysis of the AQ meant that some items had, of necessity, to be revised, discarded, or replaced. Brown (1996) considers ideal items to possess an average IF of 0.50 and to be in the range of 0.3 to 0.7. Ebel (1979) posits that an ID of larger than 0.2 is satisfactory. Resorting to these pre-established criteria the IF and ID indices were compared to arrive at the item analysis decision-making. Some items were discarded because they lacked sufficient discriminatory power or they were not fully understood by the test-takers. Some needed revision as the p-value (item difficulty) was too low. Table 2 tabulates the results of the item analysis. It depicts the items falling outside the criteria guidelines.

Table 2: Results obtained from item analysis of the AQ.

Reliability	Ave.	SD	SEM	0.3≤IF≤0.7	ID≥0.2
0.83	97.63	17.43	7.01	Items No. 5, 6, 23, 31, 36, 41, 46, 60, 71, 72, 96, 100, 101, 115, 116, 191, 192, 193, and 168.	Items No. 5, 6, 29, 39, 40, 42, 43, 44, 45, 84, 88, 99, 106, 115, and 168.

In response to the complaints/critiques made by the respondents regarding the unnecessarily repetitive nature of some items (as demonstrated through narratives and verbal communications) some items were discarded. Some were also rephrased or revised in accordance with the feedback received. The analysis of student narratives also revealed that the students had difficulty understanding some vocabulary items such as “startling” (item No. 129) and “tics” (item No. 137) which were replaced by more understandable words. Some items were also merged due to their identical/similar realm and coverage. Nevertheless, no mismatch of the scale and the items and no loaded/double-barrelled items were reported by the students. The result is a 132-item scale which is included in the appendix.

The Narratives Subscale consisted of essay-type questions 198 through 204 (the Pilot Version) and 129 through 132 (the Revised AQ). The following emerged as a result of investigating the narratives provided by students:

Anxiety types: The students reported as having suffered from a variety of anxieties including presentation anxiety (74%), speech anxiety (13%), pre-exam anxiety (34%), music performance anxiety (7%), and school/university anxiety (6%). (Percentages do not add up to 100 because some subjects experienced several anxiety categories). Thus, the majority of the subjects reported presentation anxiety as one of the most anxiety-provoking tasks facing them in the classroom.

Problems with the length of the scale: Some students complained about the length of the scale. It needs to be mentioned here that reliability could not be sacrificed in this case. DeVellis (2012) clarifies the dilemma with the length of scales stating that “choosing a questionnaire that is too brief to be reliable is a bad idea no matter how much respondents appreciate its brevity” emphasising the fact that “a reliable questionnaire [...] completed by half of the respondents yields more information than an unreliable questionnaire [...] completed by all respondents.” (DeVellis, 2012: 12-13)

Vocabulary-related problems: The subjects found some vocabulary items not understandable, ambiguous, or confusing. These include "anxious", "tic", "startle", and "pessimistic" which were replaced or rephrased in the revised version.

Task Avoidance/Quitting: As a result of analyzing responses to Question # 198 it was revealed that 10 students (13%) reported to have had the experience of quitting anxiety-provoking tasks with 14 (18.2%) not responding to the question and 53 (68.8) indicating that they have never quit tasks because of anxiety. Typical student responses to this question include: S75: "Yes, when I do the examinations", S4: "Yes, I chose not to attend an interview because of anxiety", S13: "Yes, I sometimes quit tasks when I fear something bad might happen", S16: "Yes, when I cannot understand a subject which is difficult". Whilst several subjects reported having quit tasks when they were too difficult to be understood most indicated that they never quit tasks. Consider the following: S29: "No, I just face it no matter how hard it is.", S55: "No, I just accept the task given even though I don't like it."

Reporting other symptoms: Analyzing responses to Question No. 199 we found that 66 students (85.7%) have not witnessed any other anxiety symptoms considering the scale to be exhausting the list and 11 (14.28%) stating that they have witnessed other symptoms as well ("talking fast", "lack of urinary retention", "yawning", "giggling", "sleepiness", "headaches", "cold hands and feet", and "talking and laughing too much") and 1 (1.29%) not responding to the question.

Coping Mechanisms/ Treatments: Analysis of the responses to Question # 200 revealed that some students used other coping mechanisms (e.g. "not to think about it so much", "think about something funny", "try to think about something funny", "try to think about something positive". The subjects also indicated other occasions where they might feel anxious (i.e. "having not enough money to buy something", "face to face interaction or class presentation" 59.74%, "pre-exam anxiety", "music performance anxiety", "driving", "interaction with moody/official people", "being called upon by the lecturer", and "losing something". They also reported as having resorted to the following as anxiety-coping mechanisms: "talking with the lecturer", "practice in front of the mirror", "sports", "taking deep breaths" (10.38%), "praying" (6.49%), "sharing anxiety with friends or hanging out with them", memorization, pretending not to be anxious, avoiding eye-contact, practice in front of friends, taking a nap/sleeping, dancing, singing songs, changing mindset, raising one's voice to overcome anxiety, eating, and drinking water.

Facilitative Anxiety Experience: Despite the theoretical importance of assessing facilitative anxiety, few studies have focused on developing instruments in this context. In this arena the AQ has devoted separate subscales to facilitative and debilitating anxieties. Analysing the students' responses to Question No. 202 it was found that 71 students (92.2%) have experienced useful/facilitative aspects of anxiety with 6 students (7.79%) assuming either no positive roles for anxiety or failing to comment at all. Among the negative responses one can refer to the following: "No, when you feel anxious you forget everything", and "No, anxiety just does not allow me to do the task perfectly." The majority of the subjects supported the view that some levels of anxiety can be useful as the driving force motivating them in difficult tasks. The following comments were made by the subjects in support of what is better to be called "facilitative anxiety": S62: "Yes, sometimes, anxiety is needed, because the feeling of anxiety makes me to carefully do the job.", S24: "I think anxiety can motivate me to take the task more seriously especially when I am completing an assignment and the lecturer asks me to submit the assignment on time.", S77: "Yes, anxiety helps me concentrate more", S46: "The pressure that I get from anxiety makes me focus more on the situation so that I finish the task completely.", S61: "Yes, in competitions, I try to improve my performance to beat the competitor.", S63: "Anxiety makes me complete the tasks perfectly."

Comments on the integrity of the AQ (Items 203 through 204): Analysis of responses to Question No. 203 revealed that 15 students (19.48%) complained about the fact that there were too many items on the AQ, 30 students (39.96%) approved of the entirety of the AQ, 7 (9.09%) experienced difficulty with vocabulary items such as "pessimistic", "tics", and "startle", 2 (2.59%) pointed to the existence of repeated questions, and 25 (32.4%) did not make any comments (Percentages do not add up to 100 as some students included two comments). Analysis of responses to Question No. 204 revealed that 72 students (93.5%) found that the AQ truly represented their anxiety, 3 failed to comment, 2 (2.59%) not approving of its representativeness. Thus, it can be concluded that the subjects unanimously approved of the AQ as being representative of their anxiety. This is demonstrated by the following comments: S23: "Yes, the AQ helped me identify my anxiety problems so that I can solve them in future." S26: "Yes, absolutely. It was 100% relevant to my anxiety problems." S31: "Yes, the questions are quite relevant." The majority of the subjects pointed to the comprehensive coverage of the anxiety symptoms on the AQ as demonstrated by the following comments (albeit some going overboard in doing so): S29: "No, most of the anxious people I have seen have shown the anxiety scales indicated in the AQ", S46: "The AQ has got everything to solve and cope with my anxiety problems.", S59: "No, all the anxiety symptoms were stated."

Diagnostic/Remedial Power: The subjects unanimously approved of the diagnostic/remedial power of the AQ as demonstrated by the following comments: S26: "I think this survey can give very positive results to people who want to know about themselves and their anxiety.", S29 "The AQ is a good way to know ourselves.

It is easy to understand and interesting to read. I get to know my anxiety better and learn how to control it in the future.", S44 "I enjoyed completing the scale. I think all UTM students should take the AQ to investigate their stress problem.", S76 "...It's a good scale for students like us."

AQ Administration Time: The Mean Time for the completion of the draft 204-item AQ was 35 minutes, which is lower than what the researcher had expected considering the length of the scale. This can be explained by the dichotomous nature of most items which makes responding much easier (it is reasonable to expect the mean completion time to be much shorter for the revised 132-item version of the scale). Furthermore, students reported to have spent most of the time on the narrative subscale.

Hidden Anxiety: Some subjects (4 in number) reported as having tried not to show that they are stressed/anxious thus suggesting the existence of hidden anxiety. S74: "I try very hard not to show that I am nervous but deep inside I worry too much."

According to the narratives, subjects unanimously believed the AQ to be a valuable source of insight shedding light on their anxiety problems. Most students contributed important insights and reacted very positively to being part of this project. The subjects seemed to recognize and lay emphasis on the bearing that the AQ might have on some aspects of their academic career or everyday life.

Conclusion:

The development of the AQ came, in part, as a reaction against the inadequacies, shortcomings, and inconsistencies of existing scales. Firstly, the mostly DA-oriented scores obtained from existing scales cannot be resolved into various aspects of anxiety. Secondly, due to the increasing use of the Likert scale most anxiety instruments are relatively cumbersome to administer and score. Thirdly, to date, no instrument has been designed to measure facilitative and debilitative language learning anxieties alongside other relevant anxiety types. Fourthly, most self-report scales fail to systematically provide feedback to learners whereby they can improve their performance. In this regard, the relatively easy self-scoring procedure makes it possible for the research participants to assess the severity and the category of anxiety they are experiencing. The authors of this paper believe that the likelihood of providing truthful responses will be higher if feedback is deemed useful by the participants. In sum, the present paper can be considered as a response to the daunting challenges that lie ahead for the measurement of the relativistic notion of anxiety and a remedy for the lack of scales capturing this relativistic construct in its entirety. It is hoped that the scale, with the passage of time, proves to both practitioners and target test-takers that it meets the requirements for ease of administration, realm of coverage, and use.

REFERENCES

- Bertram, D., 2006. Likert scales. CPSC 781-Topic Report, pp: 1-10, retrieved from <http://poincare.matf.bg.ac.rs/.../topic-dane-likert.pdf>. Accessed March 8, 2012.
- Brown, J.D., 1996. Testing in language programs. Upper Saddle River, NJ: Prentice Hall.
- DeVellis, R.F., 2012. Scale development: Theory and applications (Third Edition). Thousand Oaks, CA: Sage Publications.
- Ebel, R.L., 1979. Essentials of educational measurement (3rd ed.). Englewood Cliffs, NJ : Prentice Hall.
- Edmondson, D.R., 2005. Likert scales: a history, retrieved from CHARM database.
- Edwards, J.E., M.D. Thomas, P. Rosenfeld, S. Booth-Kemley, 1997. How to conduct organizational surveys: a step-by-step guide. Thousand Oaks, CA: SAGE Publications, Inc.
- Hodgson, R.J., S. Rachman, 1977. Obsessional-compulsive complaints. Behavior Research and Therapy, 15: 389-395.
- Jahangiri, M., H.R. Sharif, A.B. Rajab, 2011. Language Learning Anxiety (LLA): the division between the debilitative and the facilitative, Proceedings of the 2nd International Conference On Behavioral, Cognitive and Psychological Sciences (BCPS 2011), Nov. 25-26, Maldives: 121-126.
- Reynolds, C.R., B.O. Richmond, P.A. Lowe, 2003. The Adult Manifest Anxiety Scale: Manual. Los Angeles: Western Psychological Services.
- Spector, P.E., 1992. Summated rating scale construction, Sage Publications.
- Watson, D., R. Friend, 1969. Measurement of social-evaluative anxiety. Journal of Consulting and Clinical Psychology, 33: 448-457.
- Zeidner, M., G. Matthews, 2011. Anxiety 101, New York, Springer Publishing Company.

APPENDIX:

AQ (Anxiety Questionnaire)

Test Developer: M. Jahangiri

Objective: To identify and assess, quantitatively and qualitatively, the levels, the severity, and the categories of anxiety among individuals.

Target Age Bracket: Adults

Estimated Administration Time: 30 minutes

Format: 125 yes/no and 7 essay-type questions totaling 132 items

Scoring: handscored with online versions having automatic data analysis and scoring under consideration

Date:.....

Disclaimer: The data obtained from the AQ are confidential and intended solely for research and education purposes. While the developer of the AQ has used his best efforts in preparing and keeping the scale up to date, the developer makes no representations or warranties of any kind, express or implied, with respect to the accuracy or completeness of this scale. The recommendations, which might be stated herein, are not guaranteed or warranted to produce any particular results, and they may not be suitable for every individual. Therefore, any reliance you place on such information is strictly at your own risk. The developer of the AQ accepts no liability for the content and functionality of the scale, or for the consequences of any actions taken on the basis of the recommendations provided. AQ users are directed to countercheck the advice/recommendations when considering their use in everyday life. In no event shall the AQ developer be liable for any loss or any other commercial, psychological or social damages including, but not limited to, special, incidental, indirect, consequential, or other damage(s) whatsoever arising from the use of the AQ. By continuing/responding to the scale you agree to the conditions mentioned in the disclaimer.

Your Demographics:

Your Name/Pseudonym: (Your anonymity is assured. A secret code will be assigned after you choose your pseudonym)

Gender (Male Female), Age: 16-20 21-30 31-40 41-50 51-over 51

Date of Birth:, Nationality:.....

Level of Education (Last Level Achieved Successfully):

High School, BA/BS, MA/MS, PhD None other...

Language(s) Spoken:.....

Period of Foreign Residence: 1-5 years 5-10 years over 10 years

Your Email:.....

Please, check the items applying to you.

Subscale A: Categories

GA (General Anxiety) vs. GAD (Generalized Anxiety Disorder): Items 1 through 6

- 1-I expect the worst thing(s) to happen to me or my family.
- 2-I am pessimistic about everything and everybody.
- 3-I always worry no matter what the task is. (e.g. taking exams, driving, speaking with strangers, attending interviews or starting a new thing.)
- 4- I worry too much about my future.

SSA (Situation-Specific Anxiety): Items 5 through 18

I worry under the following circumstances:

- 5- examinations
- 6-meeting strangers
- 7- mathematics classes
- 8- speaking in public
- 9- science classes
- 10- dentist's office
- 11- computer classes/working with computers
- 12- statistics classes
- 13- foreign language classes
- 14- libraries
- 15- medical laboratories
- 16- school/university
- 17- driving
- 18- public places

SA (Social Anxiety): Items 19 through 28

- 19- I avoid participating in discussions and/or group sports.
- 20- I feel shy in parties.
- 21- I avoid eye-contact/face to face interactions with strangers.
- 22- I avoid speaking with strangers/in public.
- 23- I seldom/never complain even though someone is unfair to me.
- 24- I find fault with everything/everybody when I become anxious.
- 25- I become oversensitive when I feel anxious.

- 26- I do not trust anybody when I become anxious.
- 27- I avoid competitions.
- 28- I feel lonely.

LLA (Language Learning Anxiety): Items 29 through 47

- 29- I do not feel confident in language classes but I feel confident in most other situations.
- 30- I get distracted in language classes but I can concentrate in most other situations.
- 31- I worry when I speak a foreign language.
- 32- I worry when I write in a foreign language.
- 33- I worry when I read a text in a foreign language.
- 34- I worry when I listen to a foreign language.
- 35- I worry when I speak a foreign language because I do not know if I am speaking correctly.
- 36- I worry when I write in a foreign language because I do not know if I am writing correctly.
- 37- I worry when I read a text in a foreign language because I do not know if I read correctly.
- 38- I worry when I listen to a foreign language because I am not sure if I understand it.
- 39- I think the language instructor/teaching styles play a part in my language anxiety.
- 40- I think my classmates cause my language anxiety (as they may laugh at my mistakes).
- 41- I think the language textbooks play a part in my language anxiety.
- 42- I worry when I attend language classes.
- 43- I feel bad when I make mistakes in the language class.
- 44- I worry when the language teacher asks me a question.
- 45- I know the answers before the exam but I forget almost everything at the exam.
- 46- I worry if I do not understand what my teacher/classmates say in the language class.
- 47- I prefer taking other courses than the language course.

DA (Debilitating Anxiety): Items 48 through 62

- 48- I do not worry that much but I am not successful either.
- 49- When I speak in class, anxiety makes me lose my self-confidence.
- 50- I have no control over my anxiety. I do not know how to stop my anxiety.
- 51- I am too worried. I fear I may fail some subjects/tasks although I know enough to pass.
- 52- I feel I cannot compete against other classmates/people/workmates.
- 53- I worry when I have to speak in front of my classmates and try to avoid this situation.
- 54- I have avoided many tasks (e.g. interviews, exams, etc) because of my anxiety.
- 55- I worry when I compare myself with others (more fluent/social/successful people).
- 56- I have been absent from classes/exams/interviews making excuses or pretending to be ill.
- 57- I sometimes pretend to be ill to avoid difficult or anxiety-generating tasks such as exams.
- 58- I prefer remaining silent in class rather than volunteering to participate.
- 59- I always think what can go wrong before a difficult task.
- 60- I remember my previous bad experience before a difficult task.
- 61- I experience anxiety because I fear failure.
- 62- I worry too much and I am not successful at all.

FA (Facilitating Anxiety): Items 63 through 73

- 63- I do not worry that much and I am successful too.
- 64- Initially I worry but I summon up courage, maintain self-confidence and I succeed.
- 65- When I worry I turn my anxiety into motivation for further work/study/practice.
- 66- I welcome competitions although they make me anxious/nervous/agitated/uneasy.
- 67- I work better under some anxiety. I fight back. I never give up. I prepare myself.
- 68- It seldom happens that I postpone difficult and anxiety-provoking tasks.
- 69- If I am planning to do something difficult I visualize myself as successfully doing it.
- 70- If I am planning to do something difficult or worrying I practice a lot doing it.
- 71- I always think that everything is going to be fine and I will succeed.
- 72- I try not to think of my previous bad experience.
- 73- I worry too much but I am successful too.

Subscale B: Symptoms

HA (Hidden Anxiety): Items 74 through 75

- 74- I conceal my anxiety problem but deep inside I worry too much.
- 75- I conceal my anxiety. I try to avoid/ postpone anxiety-provoking tasks altogether (e.g. I try to avoid interviews, difficult people, difficult teachers, driving tests, or exams).

Physical Indicators: Items 76 through 94

When you experience anxiety which of the following do you feel?

- 76- tapping your feet or fingers or kicking your foot
- 77- clenching one's teeth or grinding them
- 78- biting one's nails
- 79- tense muscles/jaw aches/tics
- 80- faster breathing/having tightness in your chest/shortness of breath/respiratory problems
- 81- increased heart rate/cardiovascular problems
- 82- sweating
- 83- shakiness (hand or head shaking or trembling)
- 84- picking at things such as hair/pen
- 85- stammering/other speaking problems
- 86- weakness/faintness
- 87- gastrointestinal upset /diarrhoea/stomach pain /vomiting/nausea
- 88- clumsiness/moving awkwardly or bumping into things/people
- 89- headaches
- 90- eating problems
- 91- dry mouth
- 92- going to the toilet very often
- 93- blushing
- 94- walking/running all around the place aimlessly

Psychological Indicators: Items 95 through 102

When you experience anxiety which of the following do you feel?

- 95- racing thoughts
- 96- lack of concentration
- 97- feeling like fleeing
- 98- feeling being away from the place/people there
- 99- being oversensitive to every movement in the environment
- 100- checking things again and again
- 101- forgetfulness
- 102- inability to sleep/insomnia/bad dreams/nightmares/déjà vu

Subscale C: Cause & Effect (Items 103 through 116)

- 103- I have failed some courses/exams/tasks just because of my anxiety.
- 104- I think I become forgetful when I experience feelings of anxiety.
- 105- I have lost my interest in some tasks (e.g. my job/studies/sports) because of anxiety.
- 106- I have become anxious because of my lack of interest in some tasks.
- 107- I have lost my interest in living.
- 108- I speak when I should not and I do not speak when I should.
- 109- I am overly cautious because of my anxiety.
- 110- I have become very pessimistic because of my anxiety.
- 111- I have become fussy because of my anxiety.
- 112- I quit some tasks because of my anxiety.
- 113- I think my poor performance in some tasks is the main reason for my anxiety.
- 114- I have lost my interest in language classes because of anxiety.
- 115- I have lost my interest in foods/eating.
- 116- I feel my personality changes when I worry I become a different person, altogether.

Subscale D: Treatments & Coping Mechanisms (Items 117 through 125)

- 117- I do not know how to solve my anxiety problems.
- 118- I take medication for my anxiety.
- 119- I am taking/seeking psychiatric counseling for my anxiety.
- 120- I work better individually because it is less stressful.
- 121- I work better on a team because it is less stressful.
- 122- I normally take deep breaths when I am stressed.
- 123- In coping with anxiety, I concentrate on my emotions.
- 124- In coping with anxiety, I concentrate on the difficult task.
- 125- In coping with anxiety, I concentrate on how to avoid the difficult task.

Subscale E: Narratives (Items 126 through 132)

126- Have you ever quit some tasks because of anxiety? Please, describe your experience.

127- Have you witnessed anxiety symptoms other than the ones mentioned in this scale? Please specify.

128- Can you describe some instances or occasions in your life in general and language classes in particular

when you felt anxious? What strategies did you use to cope with your anxiety problem? Please provide a detailed description of how, when, where, and why it happened.

129- You can take the scale as many times as you wish. Anxiety is an ongoing, dynamic, and ever-changing process. Have you taken the scale/test before? When was the last time you took the AQ? Have you witnessed any positive results/improvement as a result of the application of the suggestions and recommendations?

130- Have you ever found out that anxiety can, in certain ways, be useful? Has it ever motivated you to take the task more seriously and to apply yourself to the task? To study harder? or to become more prepared? To practice harder? Please, share your experience.

131- Would you like to comment on the items appearing on the AQ? Do you wish to suggest the inclusion or omission of some items? Were the items understandable? Did any of the items sound offensive or insulting to you? Please, elaborate.

132- Does this scale truly represent your anxiety? Are the questions relevant? Did this scale help you identify some of your anxiety problems so that you can solve them in future?

Feedback

Do you wish to be supplied with some recommendations and/or more information on anxiety? If so please provide your email here:

In the end, I wish to thank you, most sincerely, for taking the trouble to respond to this scale wishing you the best in your future endeavors.

M.J.