

TEST FORMAT AND GENDER DIFFERENCES IN CIVIC EDUCATION STUDENTS' TEST ANXIETY AMONG SENIOR SECONDARY SCHOOL STUDENTS IN OGUN STATE, NIGERIA

By

Olusola Akeem HASSAN¹

olusola.hassan@fuo.edu.ng

Fountain University, Osogbo, Osun state (08057410821)

&

Mariam Oluyemi ODUNAIYA²

marianyem@gmail.com

Federal College of Education (Technical), Akoka, Lagos

Abstract

While test anxiety is mostly seen as negative, a low to moderate level of test anxiety is often considered beneficial for students to put more efforts for achieving academic excellence. This study investigated how test format and gender affect Civic education students' test anxiety in senior secondary schools in Ogun state. This study adopts a descriptive research design. The population for this study consists of all Civic education students in public senior secondary schools in Ijebu North Local Government Area of Ogun State, Nigeria. The sample for this study consisted of 188 senior school II students selected through a simple random sampling technique. Three instruments were used for this research, which were (1) the Text Anxiety Questionnaire, (2) the Civic Education Objective Test, and (3) the Civic Education Essay Test. Data obtained was analysed using descriptive statistics of means, standard deviation and inferential statistics of t-test. Results showed that the majority (64.3%) of the students preferred the objective test format. It also showed that there is a significant difference between the essay and objective test group on Civic education test anxiety ($t = 1.270, P < 0.05$). It also showed no significant difference between male and female students' test anxiety in Civic education ($t = .551, P < 0.05$). The study concluded that test format matters in Civic education students' test anxiety because a significant difference was obtained with the objective test group experiencing low test anxiety compared with the essay test group. The study recommends that both objective and essay test formats should be balanced in classroom assessment practices.

Keywords: Civic Education, Essay test, Objective test, Test anxiety

Introduction

Anxiety is a general feeling of fear and apprehension that is associated with a particular person or situation. One of them is test anxiety (Sobur, 2016). Test anxiety is an undesirable reaction to the execution of the evaluation. Test anxiety is one of the most pervasive reactions that individuals have to stress (Omomesan, 2018; Udo et al., 2004). Test anxiety is a psychological condition in which students experience extreme distress

and anxiety in test situations. Test Anxiety is a cognitive, behavioral and emotional response of a student that evokes negative emotions about a test. Anxiety is a feeling of worry, apprehension, nervousness or uneasiness that occurs when a student encounters a test or examination in any form and at any level. However, it is not limited to students only, but anyone in different forms of test/examination exercises. Even though test anxiety is mostly seen as negative, a low to moderate level of test anxiety is often considered beneficial for students and serves as a positive motivator by motivating them to put more effort into achieving academic excellence. However, Elegbede et al. (2025) lamented that test anxiety level is a threat to students over all well-being. It has been identified that a minimal or moderate amount of anxiety helps the body to respond quickly and efficiently (DePhil et al., 2011).

Test anxiety reduces students' enthusiasm for learning. If students consider a test to be more frightening, the greater the increase in anxiety level before the examinations (Amiri & Ghonsooly, 2015). It could also be implied that students with test anxiety problems may have inappropriate working styles and lack test-solving techniques. Stober (2004) identified four dimensions of Test Anxiety: worry, emotionality, interference, and lack of confidence. Undoubtedly, one of the causes of test anxiety is repeated failure when the individual is given various tests (Elfiana 2005). Among other factors, Revilla (2009) triggered the test anxiety in its implementation: (1) Time constraints, (2) The level of material difficulty and (3) Test instructions and test question forms. Bolbolian et al. (2021), however, confirmed that test anxiety is a major educational problem among students across different levels of education.

Sadly, past studies have shown that students with high test anxiety performed worse in evaluative situations than low-anxious students. In addition, Crowel et al. (2023) concluded that high achievers experienced less test anxiety than low achievers while Fulton (2016) found that students with high test anxiety levels often exhibit low self-assurance in their abilities to handle academic demands because they lack the necessary skills to succeed and consequently lack control over their actions or are losing control over He explained worry as a cognitive component as it is related to mental perceptions and thinking about personal academic achievements. Thus, it can be affirmed that test anxiety is a phenomenon that requires immediate attention among students. However, while studies

have identified factors like time constraints, level of material difficulty and (3) Test instructions and test question forms, Kusmawaty and Eka (2021) confirmed that the difficulty of the material under testing could make students to doubt their abilities and had feelings of fear if they failed the test, the more difficult the exam material, the higher the individual test anxiety.

A test is an instrument that is designed for objective and quantifiable sampling of the behaviour of a person. Adikwu et al. (2016) define a test as a set of questions, tasks or problems intended to measure or give a measure of the extent of knowledge, aptitude, intelligence and other mental traits possessed by the examinee. Basically, there are two types of achievement tests: the objective type and the essay type. Essay and multiple choice (form of objective) tests are the most popular item formats used in educational testing for secondary school level testing (Oosterhof 2001, Tozoglu et al., 2004). But each test required the examinee to have specific skills to obtain high scores (Nassar, 2006).

However, when candidates are tasked with choosing the correct answer from a set of alternatives in response to a test item, this type of test is referred to as a Multiple-choice test.

Experts have contended that the effectiveness of these test formats is contingent upon their reliability and validity (Ndem et al., 2000). The objective test format presents students with a highly structured task that confines their responses to providing a word, a brief phrase, a number, or a symbol, or selecting an answer from a predetermined set of alternatives. In the current context of increasing classroom populations, the adoption and utilisation of objective tests have become prevalent (Adikwu et al., 2016). Furthermore, objective test questions often necessitate the ability to recall and recognise information, with numerous answer choices serving as potential distractions. Objective tests can take various forms, including multiple-choice, alternate-response (true or false), completion tests, and matching formats, among others (Adikwu et al., 2016; Wahyuni et al., 2021).

The essay test format, on the other hand, is inherently subjective and necessitates that students recall detailed information, demonstrate memory, and exhibit a high level of creativity in their responses to questions that require analytical thinking (Wahyuni et al., 2021). This stipulation suggests that the implementation of subjective tests engages the test-takers' capacity to articulate their thoughts clearly. The essay test format is categorised

into two types: the restricted-response essay and the extended-response essay (Reynolds et al., 2009). However, in some cases, students may be able to perform better in one format or the other. Empirical evidence presented by Elfiana (2005) indicated that the level of test anxiety associated with essay tests was greater than that linked to multiple-choice tests. This finding highlights the disparity in test anxiety levels between multiple-choice formats and essay formats, suggesting that the structural differences and modes of response are too divergent to serve as a valid basis for comparison.

According to Mihretu (2017), research conducted in Ethiopian universities revealed a statistically significant negative correlation between students' academic achievement and test anxiety. In contrast, Raju et al. (2020) discovered that freshman students exhibited a higher mean level of test anxiety. Agbuya (2017) indicated that students' preferences for test formats, ranked from most to least preferred, are as follows: multiple choice, binary choice (true or false), short answer, matching type, enumeration, essay, definition, performance or practical, oral, and problem solving. The findings of the study highlighted that the most favoured test format among students was multiple choice. Furthermore, Nassar et al. (2011) examined students' preferences for essay versus multiple-choice examinations, concluding that students favoured multiple-choice exams over essay exams. Similarly, Nasser (2005) also noted a preference for multiple choice over essay formats.

However, it is important to recognise that the learning domains of these studies vary, and it is plausible that students' preferred test formats may differ across subjects due to the distinct nature and content of each subject. Oktaviani and Sastrawijaya (2017) conducted a comparison between multiple-choice formats and true-false formats. The findings of this research demonstrated that the group subjected to the multiple-choice test exhibited a higher level of anxiety compared to those taking the true-false test, as the multiple-choice format necessitates that test takers complete sentences and includes more distractors than the true-false format.

Civic education serves as the primary vehicle for citizens to understand their rights, responsibilities, and the mechanisms of governance. It is a critical vehicle for instilling democratic values, social norms, and concepts of gender equality among students. Hence, students need to be academically sound in the field, but this can be possible without interference from test anxiety. It is important to reiterate that most of the past studies used

quasi experimental design to address the problem of the study. One of the contributing factors to the selection of multiple-choice test formats and essay test formats as the foundation of this research is the relative scarcity of studies regarding Test Anxiety associated with these two test formats.

Purpose of the study

The study investigated how test format and gender affect Civic education students' test anxiety in senior secondary school, Ogun state.

Research Questions

1. What is the civic education students' test format preference?
2. Will there be a difference in secondary school students' test anxiety according to test format?
3. How will students' gender respond to test anxiety?

Methodology

This study adopts a descriptive research design of a survey type. The population for this study consists of all senior secondary school students in the Ijebu North Local Government Area of Ogun State, Nigeria. The sample for this study consisted of 188 senior school II students. A simple random sampling technique was used to select four senior secondary schools from the available sixteen public senior secondary schools in the local government. Also, a simple random sampling technique was used to select 20% of the total number of students from each of the selected schools. Three instruments were used for this research, which were (1) the Text anxiety questionnaire, (2) Objective test score, and (3) Essay test score.

The Test Anxiety Questionnaire (TAQ) developed by Nist and Diehi (1990) was used to measure students' test anxiety. It is five points modified Likert questionnaire psychological assessment tool designed to measure the extent of anxiety students experience. It is a 10-item questionnaire with Never, rarely, Sometimes, Often and Always as response modes. Civic education Objective test: This was a performance test based on an objective test format. It contained 30 items selected from SS 2, the students' scheme of work on civic education. (importance of citizenship education, Duties and obligations of citizens, National consciousness).

Civic education essay test: cognitive, emotional, and physiological responses associated with test-taking. This was a performance test based on an essay test format set of questions. It contained 10 items selected from SS 2, the students' scheme of work on civic education. (importance of citizenship education, Duties and obligations of citizens, National consciousness). The test is equivalent to the objective test (parallel). To ascertain the content and face validity of these instruments, the researchers gave a copy of the instruments (the questionnaire & performance tests) to test and measurement experts in Civic education.

Their suggestions were incorporated into the instrument for accurate validation. Also, the two tests and the questionnaires' reliability were established using split half method for the objective test, k-r 20 for the essay test and Cronbach's alpha for the questionnaire (0.78, 0.72 and 0.67, respectively). Nunnally (1978) indicated that a reliability index between 0.60 and 0.70 is acceptable. Spilt half method was used to assess the internal consistency of the test. In spilt half method, the test is administered once, and test items are further divided into two equal subsets, mostly along odd and even. After scoring, the scores are then correlated. For data collection, students were not conditioned to a particular test format; the test was administered to students based on their test preference. Also, ethical integrity was maintained in the study because the 20% selected from each school were among those who volunteered with informed consent. It must also be mentioned that the research conducted does not constitute a threat to the participants in any form. Data obtained was analysed using descriptive statistics of means, standard deviation and inferential statistics of t-test.

Results

1. What is the Civic education students' test format preference?

Table 1: *Distribution of Civic education student Test format Preference*

Test Format	Frequency	Percentage %
Essay	67	35.6
Objective	121	64.3
Total	188	100

The result in Table 1 showed the distribution of students' preferences for test formats. The result in the table showed that 67, representing 35.6%, preferred the essay test format, while 121, representing 64.3%, preferred the objective test format. This implied that the majority (64.3%) of the students prefers objective test format.

2. Will there be a difference in secondary school students' civic education test anxiety according to the test format?

Table 2: *Difference in civic education students' test anxiety based on Test format*

Test format	Frequency	Mean	SD	Std Error	df.	T	Sig. of t
Essay	89	16.56	3.29	.331	186	1.270	.002
Objective	99	15.88	4.01	.425			

Table 2 shows the results of difference in test anxiety of students based on the test format. The result showed a significant difference in test anxiety between scores obtained in the essay test and scores obtained in the objective test ($t = 1.270, P < 0.05$). The table showed that students who essay test ($N=89$) had a mean score of 15.88 with a 4.01 standard deviation, while students who took the objective test ($N=99$) had a 16.56 mean score with a 3.29 standard deviation. This implies that there is a significant difference between the essay and objective test groups on Civic education test anxiety.

3. How will students' gender respond to civic education test anxiety?

Table 3: *Difference in Civic education students' test anxiety based on gender*

Gender	Frequency	Mean	SD	Std Error	df.	t	Sig. of t
Male	103	16.37	3.56	.351	186	.551	.582
Female	85	16.08	3.78	.410			

Table 3 shows the results of difference in students' test anxiety based on gender. This result indicates no statistically significant gender difference in test anxiety ($t = .551, P > 0.05$). The table showed that male students ($N=103$) had a mean score of 16.37 with a 3.56 standard deviation, while female students ($N = 85$) had a 16.08 mean score with a 3.78

standard deviation. This implied that there was no significant difference between male and female students' test anxiety in Civic education.

Discussion

The results indicated that the majority of students prefer objective test formats. Various reasons may have contributed to this conclusion. This preference may stem from students' unfounded belief that objective tests are generally less expensive to undertake than essay-format assessments. However, this assumption may not always hold true, considering the stress involved in creating objective tests. Another potential reason could be that students perceive the grading of objective tests to be less biased in comparison to other evaluation methods. Consequently, this finding aligns with a previous study of Agbuya (2017), which revealed that students exhibited positive attitudes towards multiple-choice assessments. Additionally, the results corroborate the findings of Holzinger et al. (2020), demonstrating that students generally favour multiple-choice tests due to their perceived objectivity. Furthermore, multiple-choice tests were regarded as less challenging than essay assessments. This observation is consistent with existing literature suggesting that multiple-choice tests are easier to complete (Holzinger et al., 2020; Traub & McRury, 1990).

The study also revealed a distinction in Civic education test anxiety between the essay and objective test groups. This finding suggests that civic education students who prefer objective tests experience less anxiety compared to those who favour essay-format assessments. Previous literature has indicated that students exhibiting high levels of test anxiety tend to prefer objective tests over modified essays (Fortun & Tempest, 2020). Zhang (2024) noted that the structured nature of objective questions, which provide selectable options, may alleviate anxiety for these students by minimising cognitive load and offering cues for information recognition. This aligns with the research conducted by Gijbels et al. (2008), which found no significant difference between students' perceptions of assessment and their corresponding assessment scores.

However, this finding contrasts with that of Thawabieh (2017), who identified a correlation between students' performance and their preferred test format. Additionally, it was determined that test anxiety was not influenced by gender. This outcome is consistent with the findings of Nassar et al. (2011), who reported no impact of gender on the choice

of test format among Jordanian secondary school students. Notably, girls consistently exhibited higher levels of test anxiety compared to boys (Unal-Karaguvan, 2015). Conversely, Paul (2013) found that the test anxiety levels of males and females indicated that females scored higher than their male counterparts.

Conclusion and Recommendations

The study investigated test format and gender differences in Civic Education students' test anxiety among senior secondary school students in Ogun State, Nigeria. The study concludes that the majority of students prefer objective test formats. It was also concluded that there is a distinction in Civic education test anxiety between the essay and objective test groups, while gender does not. Objective test formats were associated with lower anxiety levels. The study recommended that equal priority should be given to the objective and essay test format (50-50%) as against the present 60%- 40% composition (objective-Essay respectively). Also, teachers should take time to set quality objective tests with appreciable difficulty and a discriminating index with good distracters, which will assist students' critical thinking.

References

- Adeniji, S. A., Rasaan, T. & Ameen., S.A & Medinat F. S. (2020). Senior school students' preference for test format and their academic performance in Mathematics. *Ilorin Journal of Education*, 40, 48-60
- Adikwu, O., Aduloju, M. O., & Agi, C. I., (2016). *Measurement and Evaluation in Education: Makurdi*: Shibbolleth Prints Ltd.
- Agbuya. J. V. (2017). Test preference of University science high school students. *Research. Journal of English Language and Literature*. 5 (4) 2321-3108
- Ali, M.S., Awan, A.S., Batool, & Muhammad, N.O.O.R. (2021). Secondary school students' test anxiety and achievement in English. *International Journal of English and Literature*, 15 (2), 131-138.
- Amiri, M., & Ghonsooly, B. (2015). The relationship between English learning anxiety and the students' achievement on examinations. *Journal of Language Teaching and Research*, 6 (9), 855–865.
- Amsalework, L. (2014). *The relationship between TA and academic performance at Addis Ababa University Institute of Technology*. Doctoral dissertation, Addis Ababa University.
- Bolbolian, M., Asgari, S., Sefidi, F. & Zadeh, A.S. (2021). The relationship between TA and academic procrastination among dental students. *Journal of Education and Health Promotion*, 10, 1-6.
- DePhil, M.B., Brilot, B., & Nettle, D. (2011). Anxiety: An evolutionary approach. *Canadian Journal of Psychiatry*, 56, 707–715.

- Eitle, T. M. (2005). Do gender and race matter? Explaining the relationship between sports participation and achievement. *Sociological Spectrum* 25(2), 177-195.
- Elegbede, C. B., Adedotun, K. O., & Udofia, I. G. (2025). Assessment of test anxiety scale on academic performance of undergraduates in tertiary institutions in Lagos state, *Journal of Educational Foundations*, 14, (1), 217-226
- Elfiana, S. (2005). *Perbedaan kecemasan tes antara tes berbentuk pilihan ganda dan tes berbentuk esai*. Jakarta: Fakultas Psikologi, Universitas Katolik Atma Jaya Jakarta
- Fortun, J., & Tempest, H. (2020). A case for written examinations in undergraduate medical education: experiences with modified essay examinations. *Assessment and Evaluation in Higher Education/Assessment & Evaluation in Higher Education*, 45(7), 926–939. <https://doi.org/10.1080/02602938.2020.1714543>
- Gijbels, V., Dochy F. & Van-der. J. (2008). Students' assessment preferences and perceptions. *Higher Education*, 645-658.
- Giunchiglia, F. Z, Mattia, G, E., Bignotti, E, & Bison, I. (2020). Mobile social media usage and academic performance. *Computers in Human Behaviour* 82. 177-185. <https://doi.org/10.1016/j.chb.2017.12.041>
- Holzinger, A., Lettner, S., Steiner-Hofbauer, V., & Melser, M. C. (2020). How to assess? Perceptions and preferences of undergraduate medical students concerning traditional assessment methods. *BMC Medical Education*, 20(1). <https://doi.org/10.1186/s12909-020-02239-6>
- Joshua. M. T. (2005). *Fundamentals of tests and measurement in Education*, Calabar, The University of Calabar Press.
- Jumaeda, S. T. (2016). Komparasi bentuk tes pilihan ganda dengan tes menjodohkan (matching test) ditinjau dari tingkat kesukaran pada mata pelajaran bahasa Arab di MAN Waimital Kabupaten Seram bagian barat. *Keguruan Institut Agama Islam Negeri Ambon*.1, (1) 55- 71. STAIN Samarinda.
- Karjanto, N., & Yong, S. T. (2015). *Test anxiety in mathematics among early undergraduate students in a British university in Malaysia*. *European Journal of Engineering Education*, 38(1): 11-37, 2013. <https://doi.org/10.1080/03043797.2012.742867>
- Malespina, A., Seifollahi, F., & Singh, C. (2025). Bioscience Students in Physics Courses With Higher Test Anxiety Have Lower Grades on High-Stakes Assessments, and Women Report More Test Anxiety Than Men. *Educ. Sci.*, 14(10), 1092. <https://doi.org/10.3390/educsci14101092>
- Mavilidi, M., Hoogerheide, V., & Paas, F. (2013). A quick and easy strategy to reduce test anxiety and enhance test performance. *Applied Cognitive Psychology*, 2(8), 72-726.
- Mihretu, S. (2017). Impacts of Test Anxiety on Students' academic achievement the case of Tabor Secondary and Preparatory School, Ethiopia. Master's Thesis. Hawassa University, Ethiopia
- Ndem, U. D, Udoh, A. O., & Joseph, E. U. (2000). *Tests and Measurement for Teachers and Students*. Uyo: Dorand Publisher.
- Nassar, Y. H. (2006). The effect of training the Hashemite University students on some skills of dealing with some item formats on their academic achievement. *The Educational Journal*, 20 (79), 69-119

- Nassar, Y. H., Qaraeen, K. & Abu Naba'ah, A. (2011). *Secondary school students' perceptions of essay and multiple-choice type examination*. Dirassa, Educational Science 38
- Omomesan, M.B. (2018). *Effect of cognitive behaviour and self-control therapies on stress management among counsellors in Lagos State Public Secondary Schools*. An unpublished PhD thesis of Lagos State University,
- Onyeizugbo, E.U. (2010). Self-efficacy and test anxiety as correlates of academic performance. *Educational Research*, 1, (10) 477–480.
- Oosterhof, A. (2001). *Classroom applications of educational measurement*. Upper Saddle River, New Jersey, Columbus, Ohio: Merrill Prentice Hall, Inc.
- Paul, A. M. (2013). Relax, it's only a test. *Time*, 1(81), 42 – 45.
- Putwain, D., & Daly, A. L. (2014). Test Anxiety Prevalence and Gender Differences in a Sample of English Secondary School Students. *Educational Studies*, 40(5), 554-570.
- Saputra, D. N., & Widayanti, C. G. (2014). Perbedaan Kecemasan Akademis ditinjau dari Jenis Kelamin pada Kelas X. *SMA Negeri Ungaran. Empati*, 3(3), 1-10
- Schuch, J. J., Roest, A. M., Nolen, W. A., Penninx, B. W., & Jonge, P. D. (2014). Gender Differences in Major Depressive Disorder: Results from the Netherlands Study of Depression and Anxiety. *Journal of Affective Disorders*, 156, 156-163.
- Stöber, J. (2004). Dimensions of test anxiety: Relations to ways of coping with pre-exam anxiety and uncertainty. *Anxiety, Stress & Coping*, 17(3), 213-226. <https://doi.org/10.1080/10615800412331292615>
- Thawabieh, D. A. (2016). A comparison between two test item formats: multiple choice and completion items. *British Journal of Education*, 8(2), 32-43.
- Tozoglu, D., Tozoglu, M. D., Gurses, A. & Dogar, C. (2004). The students' perceptions: Essay versus multiple-choice type exams. *Journal of Baltic Science Education*, 2 (6), 52-59.
- Traub, R. E., & MacRury, K. (1990). Multiple choice vs. free response in the testing of 33 scholastic achievement. In K. Ingenkamp & R. S. Jager (Eds.), *Tests und Trends 8: Jahrbuch der Pädagogischen Diagnostik* (pp. 128–159). Weinheim und Basel: Beltz.
- Unal-Karagüven, M. H. (2015). Demographic factors and communal mastery as predictors of academic motivation and test anxiety. *Journal of Education and Training Studies*, 3(5), 1–12.
- Wahyuni, L.D., Citraini, R., Hutomo, B.A., & Rakhman. G.F. (2021). Anxiety and Test Form: The Differences in Test Anxiety Levels in Terms of Test Form. *Jurnal Pengukuran Psikologi dan Pendidikan Indonesia*, 10(2), 184-192 DOI: <http://dx.doi.org/10.15408/jp3i.v10i2.17974>.
- Yao, H, L., Defu, C, Y., Wu, Y., & Zhou, T. (2019). *Predicting Academic Performance for College Students: A Campus Behaviour Perspective*. 1 (1)1-22. <https://arxiv.org/pdf/1903.06726v1>