

## Research on Gender Elements of Examinees' Test Anxiety in English Tests

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### Abstract

**This research discusses whether gender is a factor that intervenes the relationship between test anxiety and test behaviors. 71 females and 98 males from Changchun University of Science and Technology are the research objects, the test anxiety scale(TAS) is adopted as the questionnaire, this paper analyzes respectively whether significant differences existed among female and male examinees with different levels of test anxiety, from which datum are collected and analyzed by means of SPSS 16.0. According to the investigation, test anxiety exerts influence on males more negatively; gender is the factor that affects the examinees' test anxiety and their test performance.**

### Keywords

**English test; test anxiety; gender element.**

### 1. Background

At this stage, people inevitably experience various types of tests, and some test results can provide objective and reliable basis for the study, selection, diagnosis, and so on. Since the 50's of last century, people have studied and pay attention to the test anxiety, and now it is a hot research topic in the field of two language acquisition. Among them, the gender of the test anxiety is also increasingly concerned by domestic and foreign people.

However, previous studies focused on the results of gender differences in the test anxiety, and focused on the correlation between the test anxiety and the test behavior, and cannot clearly reflect the causal relationship between the test anxiety and the test behavior. The different behavior can be explained that gender is one of the factors that affect the test anxiety and the relationship between the two factors, the dependent variable and the test behavior. The influencing factor is the ability to distinguish the test anxiety.

Therefore, this study mainly focuses on the gender factors in the English test anxiety, i.e. the factors affecting the test anxiety and the relationship between male and female in different levels of the test, which is based on different levels of anxiety. Research on gender factor is conducted to achieve the purpose .

### 2. Object and method

#### 2.1 Object

The subjects come from four parallel classes in the 2014 grade Photoelectric department of Changchun University of Science and Technology, and a total of 169 people, including 71 female and 98 male. The English learning background is very similar: the college entrance examination scores at the same level; has been accepted for two years in College English learning; the same teacher for College English teaching; using the same guidance materials; the same hours and teaching plan. All these similarities are the premise of the study, and the data analysis of the study will be carried out for all the homogeneity test. Subjects of the same sex were grouped according to the score of the questionnaire.

## 2.2 Tool

In this study, the Sarason Test (Anxiety Scale TAS) was used as the questionnaire to investigate the test anxiety of different gender. The scale is a common tool for the study of test anxiety at home and abroad. The 37 question, in the form of "yes", "no" as choice answer, "yes" is 1, "no" score 0; but, 3, 15, 16, 26, 27, 29, 33, six reversed score questions, namely: "yes" for 0, "no" for 1. The total score of the questionnaire was the anxiety level of the subjects, and the score was under 12 points are the low anxiety, the score between 12 to 20 is the moderate anxiety, if the score is more than 20, the subjects belong to high anxiety group.

169 subjects from grade one to present, three semesters of College English final average score as a source of research data acquisition. The average score of the three semester can be a comprehensive study of their English real level and usual performance, because the final exam content is basically the main content of each semester, and the final score is composed of two parts ; students class performance and final term test scores, according to the provisions of Changchun university of Science and technology Dean's office, the final test paper scores account for 60 - 70%, class performance is 30 - 40%. The final test and the national scale of the English proficiency test in the test content, test task, test situation, test environment, test probability and other aspects are very different, so that the anxiety of the same group of candidates in the final test performance should be weak, while in the application of English, the impact will be stronger.

169 subjects' questionnaire score, three semester final score and English proficiency test scores were analyzed using the software SPSS16.0, using the homogeneity test, mean comparison, single factor analysis of variance, Scheffe post-analysis on whether female factors, male factors have impact on the relationship between the test anxiety and test behavior are discussed and studied.

## 3. Research Process

### 3.1 Study on female factors

According to the TAS score of 71 female subjects, 24 scored between 9-12 belong to the low anxiety group, named group 1, 18 scored 13-20 are divided into moderate anxiety level, named Group 2, and 29 examinees' score higher than 21 are categorized into high anxiety group 3. . In Prior to the study of female factors, using SPSS analyzed all women's final score, Sig.value was .845 > .05, which showed that the variance hypothesis was established, and further verified the 71 female candidates from the same group, this conclusion provides the basic prerequisite for this study. In order to test the influence of test anxiety on women 's test behavior, the author makes a comparison of the final test results of three groups of women with different anxiety, as shown in table 1:

Table 1 Comparison of the female students' final term mean score

Female anxiety group	Mean	N	Std. Deviation	Minimum	Maximum
Group 1	75.71	24	8.750	61	93
Group 2	72.33	18	9.959	51	90
Group 3	70.83	29	8.544	50	86
Total	72.86	71	9.111	50	93

Table 2 Analysis of the three groups of female variance of the final scores

	Sum of Squares	df	Mean square	F	Sig.
Between Groups	319.495	2	159.784	1.978	.146
Within Groups	5491.096	68	80.751		
Total	5810.592	70			

The mean values shown in the above table show that there are differences between the three groups, and that the higher the test anxiety, the lower the test results, and that the test anxiety is the impact of the test behavior of women in the final test. In order to further reveal that there is a significant difference between the final score of the three groups, the single factor analysis of variance can be used to check whether there is a significant difference between the three groups of different levels, the significant level of difference is .05. About Single factor analysis of variance, see table 2:

The Sig. value in Table 2 shows that there is no significant difference between the final score of female candidates in the three groups of women who have different values of anxiety, and the test anxiety has a weak influence on the test of women, but the effect is not significant.

Then the three groups of female English proficiency test scores are also carried out the corresponding homogeneous test, mean comparison and single factor analysis of variance, the purpose is to explore the impact of anxiety in a stronger, larger than the formal English proficiency test, test anxiety is also affecting female test Trial behavior. Similarly, homogeneity test is the premise of all data analysis, Sig. value for  $180 > .05$  again proved that 71 female students' comprehensive English is basically in the same level. Table 3 lists three groups of women in English proficiency test scores of the mean comparison, table three of the 4 groups of women in English proficiency test scores were analyzed by single factor analysis of variance.

Table 3 Three groups of Comparison of female English proficiency test scores

Female anxiety group	Mean	N	Std. Deviation	Minimum	Maximum
Group 1	73.46	24	7.157	59	89
Group 2	67.06	18	6.092	56	80
Group 3	65.79	29	9.116	49	87
Total	68.70	71	8.429	49	89

Table 4 Analysis of the three groups of female English proficiency test scores

	Sum of Squares	df	Mean square	F	Sig.
Between Groups	837.127	2	418.564	6.882	.002
Within Groups	4135.661	68	60.819		
Total	4872.789	70			

The mean values in Table 3 show that there is a difference between the three groups of results, the high anxiety value is also demonstrated. The Sig. value in Table 4 is  $.002 < 0.5$ , which indicates that at least two groups are stored.

In order to understand the difference between the groups, utilize SPSS and Scheffe method to conduct post analysis. After several comparison, Sig. value of Group 1 and Group 2 were  $.037 > .05$ , Group 1 and Group 3 are  $.003 < .05$ , Group 2 and Group 3 is  $.865 > .05$ . This shows that there is significant in the test of English application ability between Group 1 and Group 3 female examinees, so in the high anxiety of English proficiency test, test anxiety is affecting female examinees' test behavior, and the impact is relatively large.

### 3.2 Male factor research

The total scores of 98 male subjects were divided into three groups, 34 male students scores from 8 to 12 are low anxiety group 1, 30 male students scores from 13 to 20 are moderate anxiety group 2, 34 whose scores are above 30 are high anxiety group. The three groups were named Group①, Group② and Group③, respectively. Similarly, the homogeneity test is a prerequisite for the study of male factors, so the final score of three groups of men were homogeneous test, Sig. value is  $107 > .05$  shows that the 98 men were homogeneous, to ensure that the basic premise of the study so to ensure the

validity of the research results. Table 5 and table 6 make mean comparison and single factor analysis of variance on the 3 groups of male which is shown in the following table:

Table 5 Comparison of the male students' final term mean score

Male anxiety group	Mean	N	Std. Deviation	Minimum	Maximum
Group①	73.85	34	6.214	55	82
Group ②	71.17	30	7.909	50	86
Group ③	67.44	34	9.258	51	88
Total	70.81	98	8.262	50	88

Table 6 Analysis of the three groups of male variance of the final scores

	Sum of Squares	df	Mean square	F	Sig.
Between Groups	639.124	2	319.562	5.340	.006
Within Groups	5685.049	95	59.843		
Total	6324.173	97			

The final score in Table 5 showed that there was a difference between men with different values of anxiety in the three groups. The test anxiety was significantly affected by test anxiety in the final test, and the Sig. value  $.006 < .05$  in table 6 showed that there were significant differences between at least two groups of the three groups. Scheffe method made post comparisons on male's final score, after multiple comparison, it is found Sig. $=.386 > .05$  between group 1 and group 2, group 3 and the Group2 between Sig. $=.214 > .05$ , and Group1 and Group 3 Sig. $=.006 < .05$ . It indicated that there was a significant difference between group1 and group 3. Based on this, the author can boldly speculate in the English application ability test, there is a significant difference between the three groups.

Then the three groups of male English proficiency test scores were analyzed and studied. In order to ensure the effective development of the study, the test results of three groups of men were also carried out in the same test, the test results showed that the Sig. $=.152 > .05$  98 male examinees was more homogeneous, so the hypothesis was established. First of all three groups of male English proficiency test scores were compared, as shown in table 7:

Table 7 Comparison of the male students' English proficiency test scores

Male anxiety group	Mean	N	Std. Deviation	Minimum	Maximum
Group①	72.21	34	6.381	62	86
Group ②	67.10	30	6.860	54	80
Group ③	62.88	34	9.028	45	80
Total	67.40	98	8.422	45	86

On the table, there are still three groups of men, but the total score of the three groups is less than that in table 67.41. The total score of the groups is less than mean final term scores 70.81 in Table 5.

The test behavior of male candidates is different. In order to study whether there is a significant difference between the 3 groups of male English proficiency test scores, then a single factor analysis of variance was carried out, and the results were shown in table 8:

Table 8 Analysis of the three groups of male English proficiency test scores

	Sum of Squares	df	Mean square	F	Sig.
Between Groups	1481.885	2	740.943	13.040	.000
Within Groups	5397.788	95	56.819		
Total	6879.673	97			

The Sig.=.000 in Table 8 is far less than .05, and it shows that there are significant differences between the three groups. Comparison analysis of Scheffe method indicates the Sig.=.030<.05 between group1 and group2, Group1 and group 3 Sig.=.000<.05, Group 3 and group 2 Sig.=.088>.05, respectively, and the difference is significant between the three groups, and group2 and group 3 is not in significant difference. This conclusion is verified by the author of the above conjecture. Therefore, in the anxiety of English application ability test, the test anxiety is more affected in the test behavior for male candidates, and compared with the final test, the influence of the male candidates is more extensive, the impact is more intense, the gap is more significant.

#### 4. Conclusion

Based on the study of the relationship between the two factors of the test anxiety and the test behavior, the relationship between the two factors of female and male is discussed and studied. From the research data, it can be concluded: Test anxiety has hindered the test behavior of male and female examinees, whether in the final test which is influenced relatively low by anxiety or in the English proficiency test which is greatly affected by anxiety, Test anxiety is an obstacle to the test of male and female. The higher the anxiety, the lower the test results. In the three term, the mean value of the average score and the English proficiency test scores of male and female were compared, and the mean values of the girls were higher than boys in the two tests. Therefore, test anxiety for male candidates should have more obstacles, the impact of the examination on the female candidates is relatively low. Female students in the three groups of test anxiety level showed a difference in the mean score of the final exams in the three semesters, but the difference is not significant; they showed a significant difference in the sense of anxiety in English proficiency test. This shows that women are the factors that affect the relationship between test anxiety and test behavior. For men, the three groups of anxiety level of men in the two categories of tests have shown a significant difference, but in the stronger, more formal English proficiency test, the difference is particularly significant. Therefore, male factor affects the relationship between test anxiety and test behavior. All in all, gender is the factor that affects the relationship between test anxiety and test behavior.

#### Acknowledgment

This thesis is supported by Jilin Provincial Department of Education Project "English Test Anxiety under the Network Environment and the Impact on English Learning Research" No. KYC-SH-XM-2014-005

#### Reference

- [1] Aida. Examination of Horwitz, Horwitz and Cope's construct of foreign language anxiety: the ease of students of Japanese [J]. *The Modern Language Journal*, 1994
- [2] Kleijn, W. C., Van der Ploeg, H. M. & Topman, R. M., 1994. Cognition, Study Habits, Test Anxiety, and Academic Performance. *Psychological Reports*
- [3] Knox, D., Schacht, C. & Turner, J., 1993. Virtual Reality: A Proposal for Treating Test Anxiety in College Students. *College Student Journal*
- [4] Lahey, B. B., 1995. Analysis on the Relationship among Test Anxiety, Self-concept and Academic Competency. In: Lange, M., Connors, S., Fuerste, A., Huinker-Timp, K. M. & Fuller, L., eds. *Psychology: An introduction*. Dubuque, IA: Brown & Benchmark