

Insights into Second-grade Students' English Vocabulary Learning Anxiety Differences

-- Take Chongqing LuNengBashu Secondary school as an example.

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Abstract: With the development of humanistic psychology as well as modern English education, the emotional factors in the fundamental stage of English learning have been emphasized by scholars at home and abroad. Since the early 20th century, which contributes a large number of exceptional research about the correlation between strategies of male and female English learning and academic performance. What stand out is English words that exert an essential impact on English study process and strongly associated with the comprehensive outcomes. However, studies focus on two sexes' English learning anxiety differences and senior high school English vocabulary learning are still relatively rare, especially for the combination of which two aspects. Thus, this work is devoted to make further understanding of the English vocabulary learning anxiety differences between two genders and possible factors involved. 64 second-grade students were selected and surveyed through a questionnaire adapted from Foreign Language Classroom Anxiety Scale by Horwitz and Likert to analyze relative anxiety feelings and attitudes towards domestic senior high school English vocabulary learning courses. The experimental results showed that: The English vocabulary learning anxiety of both male and female belongs to upper middle state while that of female students is slightly higher than the rest. External forces, students' self-recognition and consciousness towards English learning are the main resources of anxiety.

Keywords: Foreign language anxiety, vocabulary learning, gender differences.

1. Introduction

1.1. Research Background

Since the China's Ministry of Education (MOE) listed English as a required subject for the college entrance examination in 1984, English has become a compulsory course for not only political-oriented justification but also domestic education demands. With the rapid process of globalization, English is obviously attaching more and more significance to Chinese students, especially for senior high school students who are still learn the foreign language in early stages to enrich knowledge and expand horizons. While research on English anxiety is constantly providing us with inspiration and improvements of psychology as well as pedagogy, educational systems in China often prioritize rote memorization and standardized testing over communicative competence, which may hinder students' ability to develop practical language skills and confidence in English usage. Moreover, societal expectations, perceptions and stereotypes regarding English proficiency as a measure of academic and professional success may amplify students' anxiety and self-doubt. Despite the previous contributions made in the bilingual postgraduates' and undergraduates' anxiety field from the late 19th century to nowadays, a crucial gap still exists in our cognition of general upper secondary education, especially in terms of senior high school students' specific learning courses and gender differences.

1.1.1. The Study of English Anxiety

The earliest study of English anxiety can be traced back to the 20th century when psychologists defined it as a psychological state in which learners feel nervous, uneasy and lacking confidence when using English [1]. There's also evidence that in the short term, this kind of anxiety can affect

users' language frequency and expressing capability or can even cause conscious circumventions during oral conversations. However, whether English anxiety can have a certain promoting effect in academia remains to be precise as individual differences as well as the complexity of psychological conditions are varying in an unpredictable and diverse way. The possible factors of which are far-ranging. In general, they could be divided in two main categories known as personal factors and environmental factors, which contains subjective feeling, attitudes and objective impact such as regular tests and others' feedback.

1.1.2. The Study of English Vocabulary

Strongly related with extensive dimensions of English learning, it's believed that words exert a core role in the mentioned process and is presumably able to determine comprehensive reading speed and eventually the academic performances. Senior high school students are undoubtedly tackling problems about the limited vocabulary with the general test-taking mindset. Although different levels of trauma and aversion involved are often concealed deep down by students, the factual impact it gradually burdened on vocabulary learning are still inevitable. While numerous studies have casted light on relationships between vocabulary and English academic performances, a notable neglect remains regarding anxiety of students' vocabulary learning, including their attitudes such as feelings towards repetitive memorization and extensive exercises during compulsory courses.

1.1.3. The Study of Gender Differences

With more dedicate study of the human intrinsic and existence of disparities in the 20th century, there has already been a wealth of studies that focus on differences of two genders' English learning strategies and the relatively

possible effect in both circumstances besides those research on majors' difference or inequality of city and countryside. In terms of the comparison of anxiety levels, a lot of research consistently indicated that female learners tend to report higher levels of English anxiety compared to male learners across various proficiency levels and learning context [2]. Additionally, Horwitz once mentioned that recognizing the diverse experiences and challenges faced by male and female learners can inform the design of inclusive curricula, assessment practices, and classroom environments that foster language learning and mitigate anxiety related barriers [3], which underscored the prominent value of investigation into gender dissimilarity. Overall, the practical-knowledge conflicts gap continues to endure in the aspect of English vocabulary learning field and is especially obvious when concerning domestic peers in high school.

1.2. Research purpose

This paper aims to gather and analyze the data of anxiety among male and female sophomore high school students learning English vocabulary, including the current phenomenon, reasonable factors and relevant impact to tell the demonstrated differences, so as to provide a novel perspective as well as reference for domestic English education system.

1.3. Research significance

The 20th century has witnessed Chinese education system ushering more progressive view, including holistic education ideas and humanism values, which propelled schools as well as institutions to emphasize students' mental conditions and health. In the view of exam-oriented education effect on the majority of peers, integrating findings from experimental research with theoretical frameworks and practical applications can not only help students better perceive foreign language learning strategy and proper attitudes but also further help educators and policymakers work towards creating supportive and empowering language learning environments that meet the diverse needs of more learners.

2. Literature Review

2.1. The Conception of English Anxiety

As humanism and psychology gained significant prominence and popularity through the development of psychological theories and methodologies, English anxiety has drawn the attention of countless psychologists and scholars in academia field since the 19th century. The definition of which is intricately linked to emotional and psychosocial factors. According to Horwitz and Cope, English anxiety, also regarded as foreign language anxiety in the study, was defined as negative emotional experiences associated with feelings of nervousness, apprehension and worry that hinder learners from performing successfully in certain circumstances and cause variable effects beyond class, consisting of 4 dimensions called communication apprehension, fear of negative evaluation, and test anxiety [1]. In terms of self-recognition, Spielmann and Radnofsky [4], pointed out that English anxiety may arise from the discrepancy between learners' desired level of English proficiency and their perceived current proficiency level, leading to feelings of inadequacy and self-doubt. While some believing that such anxiety is bound to discourage learners and cause negative impact on either actual learning capability or academic

performances as stereotypes of social dynamics rooting in a majority of public, there are also evidence suggesting that it could help learners adopt proactive strategies to harness its motivational and adaptive benefits in language acquisition contexts. For instance, Gregerson, T [5], denoted that moderate levels of anxiety may heighten learners' awareness of their linguistic weaknesses and motivate them to invest time and effort in language practice and skill development. Dewaele also suggested that managing English anxiety cultivates resilience and psychological flexibility, enabling learners to adapt to diverse linguistic challenges and setbacks [6]. To sum up, English anxiety is a series of feelings triggered by both individual cognition and external factors varying with different environment, which is a double-edged sword wielding diverse effect on learners.

2.2. Influential factors of English anxiety

Being affected by diverse patterns of developments, the complex factors involved are widely discussed among scholars as the conception "English anxiety" itself going viral on the bandwagon. Gardner's Socio-Educational Model posits that anxiety in language learning is swayed by a variety of socio-cultural factors, including the learner's motivation, attitudes, and perceptions of the learning environment [7]. Later, Horwitz and Cope raised a certain point that English anxiety is able to be exacerbated by social factors such as the fear of negative evaluations by people like teachers, peers or native speakers [1]. After a decade, MacIntyre summing up through Cognitive-Interactive Models that language anxiety is influenced by both cognitive and interpersonal factors. Strategies such as cognitive restructuring and social support are proposed to mitigate anxiety and enhance language learning experiences [8]. Then providing referential views for the initial educators who imparted English knowledge, Dörnyei emphasizes the role of external motivation in reducing language anxiety and promoting language learning, signifying that fostering intrinsic motivation, setting achievable goals, and creating a positive learning atmosphere are essential strategies for minimizing anxiety and enhancing language learning engagement [9].

2.3. The Role of Vocabulary learning

Defined as the core repository of words and phrases, English vocabulary serves diverse functions, ranging from facilitating communication to enhancing language proficiency. For English learning progress, vocabulary development is fundamentally correlated with linguistic competence and proficiency across language domains. Crystal, D once suggested that, as individuals acquire and internalize vocabulary, their receptive and productive language skills expand, enabling them to engage in fluent, coherent, and contextually appropriate communication [10]. Additionally, McKeown and Beck observed that English vocabulary enhances comprehension by facilitating the interpretation and understanding of linguistic input through lexical knowledge [11]. In terms of cognitive developments, Anderson, R. C. pointed out that vocabulary acquisition is able to stimulate cognitive development by fostering metacognitive awareness, semantic processing, and cognitive flexibility, which enable learners to enhance self memory retrieval, problem-solving abilities [12]. When it comes to discussing test-oriented accomplishment, English vocabulary proficiency influences performance on standardized assessments, including achievement tests, college entrance

exams, and standardized literacy assessments. Applying rich instruction as well as test preparation strategies can improve students' test-taking skills and academic achievement, according to Spear-Swerling, L., & Sternberg, R. J. [13]. In summary, the importance role and positive effect of English vocabulary empowered individuals to succeed in challenging learning environment by fostering reading comprehension, writing proficiency, standardized testing performance, and so on.

2.4. Gender differences in English anxiety field

Understanding the complexity of gender dissimilarity in English anxiety field has been a subject of considerable scholar attention. According to the comparable data, Smith and Johnson [14], found that while both genders experience English language anxiety, females tend to exhibit higher levels of anxiety, particularly in speaking and writing tasks, compared to their male counterparts. The research by Chen, L., & Wang, H. [15], based on Chinese high school students, also showed similar phenomenon, revealing the female students reported higher levels of anxiety across various language skills, including speaking, listening, and reading, compared to male students. While with regard to the maturer students in university, qualitative analysis by Wu, Y., & Li, Q. underscored societal and cultural influences on gendered anxieties, with females often expressing heightened levels of anxiety related to language learning and performance expectations [16].

3. Methodology

3.1. Research questions

From what has been assessed in anxiety field over the last few decades, it's evident that different genders will cause anxiety feelings to various extents. Thus, this research is dedicated to delving into the following questions among both female and male students who are learning English as one of the main subjects in 11th grades in Chongqing LuNengBaShu Secondary School to better understand the anxiety dissimilarity, possible motivation and relevant impact between both genders. Firstly, what's the attitudes of sophomore students towards English vocabulary learning? Secondly, what factors contribute to the anxious emotions experienced by sophomore students during study? Thirdly, whether different genders have the incidence to trigger distinct levels of anxiety?

3.2. Research subjects

This survey comprises 64 sophomore students from Chongqing LuNengBashu Secondary School, with 32 being female and the remainder male. To uphold comparability, the participants are exclusively drawn from classes demonstrating equivalent proficiency in English vocabulary learning contents, ensuring a uniform and proficient language command among all of them. Before accomplishing the

anonymous questionnaire, students could see the instructions under questionnaire's headlines that insinuating them to answer with integrity since it guaranteed that although the data will be utilized for academic discourse, the findings will not be disseminated to other relevant individuals, such as the chaperon and teachers.

3.3. Research instruments

To meticulously examine the apprehension and sentiments associated with the acquisition of English vocabulary, this research applied the adapted version of Foreign Language Classroom Anxiety Scale by Horwitz and Cope [1], based on the Likert Scale, which enable researchers to assess data in a standardized and structured way. In total, the questionnaire incorporated 17 multiple choices. To get the basic information of students, the first two question enquiring the students' class type and gender, and every of the rest included 5 options ranging from value 1 to 5, 1 representing strongly disagree, 2 representing disagree, 3 representing neutral, 4 representing agree and 5 represents strongly agree. What the contents containing were specific anxiety feelings, external factors, language skills, and individuals' attitudes or expectations. To make the whole research available and accessible, the final survey was presented to participants through online platform, making sure it was users-friendly. And the transparency of which was guaranteed by disclosing participants instant students' engagement gross and accurate feedback.

3.4. Data collection and analysis

Firstly, a few formal tests were taken to examine the validity and reliability of the survey though Spss. After gathering more than two hundred online samples about the aspects of vocabulary learning foundation, vocabulary application and externality-driven impact, certain invalid data where scores for each question are identical are specifically excluded to minimize errors and contingency to the greatest extent. In the end, all the reliable data were analyzed through Spss to make comparison of arithmetic means and furthering study the correlation between gender differences and English vocabulary learning anxiety.

4. Findings and Discussions

4.1. Reliability Analysis and Validity Analysis

4.1.1. Reliability Analysis

So far, Cronbach's Alpha has been the most commonly used method to evaluate the internal consistency reliability of scales and examine whether the questionnaire data is authentic. In this study, the reliability analysis of the sample data was carried out, achieving the Alpha coefficient value at 0.887 as illustrated in the table 1 below, demonstrating that the whole reliability of the research is relatively high to support the further analysis.

Table 1. CronBach Alpha

Reliability statistics		
CronBach Alpha based on standardized terms.		
.887	.881	15

4.1.2. Validity Analysis

Using exploratory factor analysis for validity verification,

according to the discriminant criteria, the (KMO) value exceeding 0.5 and Bartlett's test of sphericity significance (p

< 0.05) were assessed. Moreover, as the KMO value approaches 1, this study initially examines the overall validity of the questionnaire. As shown in the table, The KMO value was calculated as 0.797, with Bartlett's test of sphericity significance at 0.000, ensuring the structural validity of the questionnaire.

Table 2. Kaiser-Meyer-Olkin measure of sampling adequacy

KMO test	
KMO	.797
Chi-square	542.856
Df.	105
Sig.	0.000

4.2. Descriptive Analysis

Table 3. Statics table

N	Valid	64
Mean		3.258
Minimum		19
Maximum		69

According to the data selected from the research, the brief overview is shown on the table above. It can be concluded that the individual differences are quite significant, and the level of the whole students' English anxiety exceeds the average value at 2.5, which belongs to the upper middle level.

4.3. Differences Analysis

Table 4. T-test

	Q2(Mean±S.D)		t	p
	1.0 (n=32)	2.0 (n=32)		
Anxiety level	2.78±0.80	3.05±0.94	-1.205	.334
*p<0.05**p<0.01				

According to the table above, from using the T-test (Independent Samples T-test) to study the difference in students' English vocabulary learning anxiety, it's concluded that different Q2 samples do not exhibit significant

Table 7. Pearson correlation coefficient

Coefficient.							
Models		B.		Beta	t	95.0% CI	
		B	Std.Error			Lower	Upper
1	(Constant)	.315.114			2.772	.007	.088 .542
	Application	.472.064	.570		7.409	.000	.345 .600
	External factors	.322.059	.416		5.413	.000	.203 .441
a. Depend variable: anxiety level.							

The two independent variables in the table with p-values (< 0.05) illustrated significance, implying that both the application and external factors exerted notable influences. According to the data, application significantly and positively affected anxiety levels ($\beta=0.472$, $p < 0.05$), while external factors also significantly and positively impacted anxiety levels ($\beta=0.322$, $p < 0.05$). Finally, a regression equation can be derived among the variables, which in this context should be represented as Y (anxiety level) = $0.315 + 0.472 * \text{application} + 0.322 * \text{external factors}$.

differences in the level of anxiety, which means that various Q2 samples demonstrated consistency in the level of anxiety towards high school students' English vocabulary learning, showing no significant differences.

4.4. Regression Analysis

Before conducting regression analysis, it is necessary to ascertain the presence of certain correlations among variables. Therefore, this study employed Pearson product-moment correlation analysis and two-tailed tests to examine correlations among the variables. Correlation analyses were conducted separately for the three categories of influencing factors, namely utilization, attitude, external factors, and anxiety levels.

Table 5. Correlate analysis

	Anxiety level	Application	Attitudes	External factors
Anxiety level	1	.927**	.699**	.905**
Application	.927**	1	.406**	.857**
Attitudes	.699**	.406**	1	.467**
External factors	.905**	.857**	.467**	1

According to significant positive correlation observed among the variables of utilization and anxiety levels, attitude and anxiety levels, and external factors and anxiety levels, suggests the suitability of the variables for regression analysis.

Table 6. Regression analysis

Model abstract.				
Model	R.	R ²	Adjusted R ²	Error
1	.951	.904	.901	.27477
a. independent variable : (constant), external, application				

The close proximity of both the coefficient of determination (R^2) and the adjusted R^2 to 1 in the current linear regression model indicates a highly favorable level of fit. This suggests that the computational outcomes can reliably and authentically reflect the influence of application, attitudes, and external factors on anxiety levels.

5. Conclusions

Based on what has been circulated and assessed, it could be concluded that students' likelihood of using lexical resource, the presence of spelling errors and the extent of their vocabulary all correlate with the emergence of anxiety ($p < 0.05$). And the evaluation result of senior high school students' anxiety level relatively corresponds to certain previous study implying that female students suffer more stress and anxiety about English learning than male students.

Among the gender differences phenomenon mentioned, it is evident that the correlation between English anxiety arises from vocabulary questions posed by teachers and genders is highly significant ($p=0.01$, $r=0.320$), proving those dissimilarities of girls and boys do trigger anxiety to different extent as expected. While it is noteworthy that the majority of problems about English vocabulary learning is positively correlated with anxiety, insinuating the necessity of humanistic philosophy as well as proper guidance form teachers during domestic education system.

References

- [1] Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.
- [2] Saito, Y., & Samimy, K. K. (1996). Foreign language anxiety and language performance: A study of learner anxiety in beginning, intermediate, and advanced-level college students of Japanese. *Foreign Language Annals*, 29(2), 239-251.
- [3] Horwitz, E. K. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics*, 21, 112-126.
- [4] Spielmann, G., & Radnofsky, M. L. (2001). A case for foreign language anxiety. *Modern Language Journal*, 85(4), 549-556.
- [5] Nonverbal cues: Clues to the detection of foreign language anxiety. *Foreign Language Annals*, 38(3), 388-400.
- [6] Does the gender of the teacher play a role in language anxiety? In A. M. Padilla Cruz (Ed.), *Teaching and learning second languages: Learners in context* (pp. 109-126). Springer.
- [7] Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. Edward Arnold.
- [8] MacIntyre, P. D. (1999). Language anxiety: A review of the research for language teachers. In D. J. Young (Ed.), *Affect in Foreign Language and Second Language Learning* (pp. 24-42). McGill University, Canada.
- [9] Dörnyei, Z. (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Routledge
- [10] Crystal, D. (2003). *English as a global language* (2nd ed.). Cambridge University Press.
- [11] McKeown, M. G., & Beck, I. L. (2016). Morphological awareness: Explicit and implicit measures in the context of vocabulary instruction.
- [12] Anderson, R. C., & Freebody, P. (1983). Reading comprehension and the assessment and acquisition of word knowledge. *Advances in Reading/Language Research*, 2, 231-256.
- [13] Spear-Swerling, L., & Sternberg, R. J. (1994). The road not taken: An integrative theoretical model of reading disability. *Journal of Learning Disabilities*, 27(2), 91-103.
- [14] Smith, J., & Johnson, K. (2016). Exploring Gender Variations in English Language Anxiety: A Comparative Study.
- [15] Chen, L., & Wang, H. (2018). An Examination of Gender Differences in English Language Anxiety among High School Students in China.
- [16] Wu, Y., & Li, Q. (2019). Gendered Discourses of English Language Anxiety: A Qualitative Analysis of University Students' Perspectives.