

A Research on Error Correction Strategies in English Class of Senior High School from the Perspective of Gender and Personalities based on Affective Filter Hypothesis

——Taking SJZ Foreign Language School as an Example

Jiajing Wang^{1,a,†}, Ziqi ZHAI^{2,*,b,†}

¹*Faculty of Humanity, Hong Kong University of Polytechnic, Hung Hom, Hong Kong, China*

²*School of English and International Studies, Beijing Foreign Studies University, Beijing, China*

a. Gabriellewong@163.com, b. 19010149@bfsu.edu.cn

**corresponding author*

†These authors contributed equally.

Abstract: According to the Compulsory Education English Curriculum Standard (2022), senior high school students are encouraged to actively speak English in and out of the class. Teachers' inappropriate error correction methods will increase students' English-speaking anxiety and reduce their enthusiasm for oral English learning. Based on Affective Filter Hypothesis, this study uses Foreign Language Speaking Anxiety Self-Schema (FLSAS) as the measuring tool, and try to find out the attitude of students toward oral error correction in English classes and to what extent do gender and personality affect this attitude. The subjects were 130 students from ten parallel classes in senior 2 of Shijiazhuang Foreign Language School. The instruments of quantitative study consisted of one questionnaire, with a total of 17 items used to investigate students' English-speaking anxiety. 130 valid questionnaires were collected, and then the data collected from the questionnaires were further analyzed by SPSS, by which the results have shown that different personalities have relative influence on students' attitudes toward oral error correction in English classes. Discussions about error correction strategies that teachers can adopt are put forward based on the results.

Keywords: Error correction, Affective Filter Hypothesis, oral English, second language acquisition, gender, personality

1. Introduction

"Error" belongs to the category of language ability, which is due to the lack of complete declarative knowledge, which leads to learners' inability to identify and correct. "Mistakes" belongs to the category of language use, which refers to the learner's lack of complete and coherent procedural knowledge due to oral/written errors, mental state, and physiological factors [1,2]. The process of classroom teaching is the main process of discovering and correcting mistakes, especially in oral English teaching. In recent years, there has been a consensus among teachers and students about

errors and the necessity of examining the learning process, but teachers' error correction strategies are not satisfactory, thus this is why it is a heated topic.

Previous research on error correction research focus primarily on whether teachers should correct errors in students' studies and how they should proceed. According to several research looking at the consequences of error correction feedback, if the correction method is not chosen properly, it could unintentionally undermine students' self-confidence. Given that what may seem unique to one kid may be discouraging and demotivating to another, Gumbaridze contends that the corrective strategies cannot be perfect and acceptable for all types of learners[3]. Yang and Zhou argue that error correction often tends to affect learners' motivation and self-esteem[4]. According to the emotional filter hypothesis and teaching situation, five types of error correction can be summarized: teacher correction, self-correction, peer correction, group correction, and no correction. Self-correction with the help of teachers is the most effective way for students to stop making the same mistakes.

Error correction involves many aspects, among which the most important one is the study of personality. Ellis called individual personality factors "social style" and "ego centric factors"[5]. Eysenck defined it as a stable, persistent and unique organization of individual's character, temperament, intelligence and physical strength to adapt to the environment[6]. Allport defined it as the dynamic organization within an individual's physical and mental system that determines his characteristic behaviors and thoughts[7]. Griffiths interviewed 98 teachers of English as a second language or foreign language in the UK, Japan and Oman to understand how these teachers' assessed personality and two other variables (intelligence and memory) that cause individual differences[8]. Personality was slightly higher than their assessment of the learners' intelligence and slightly lower than memory. It can be seen from the survey results that teachers generally pay more attention to the different types of learners' personalities. There are two main hypotheses on the relationship between extroversion/introversion personality and second language learning[9]. First, extroverts are superior to introverts in communicative competence. Second, introverts are superior to extroverts in cognitive and academic language abilities. Brown argued that teaching methods themselves can promote or interfere with learning. The research of personality needs the support of scientific theory, of which Affective Filter Hypothesis will be mentioned as a good method[10].

The Affective Filter of Affective Filter Hypothesis which was initially proposed by Dulay and Burt is a block that prevents the entry of understandable language from reaching the mental apparatus of language acquisition, thereby preventing the acquisition of language. Krashen proposed the whole affective filtering hypothesis stating that an environment with a large amount of comprehensible input does not guarantee that students will learn the target language well[11]. The process of filtering is as follows: input - filtering – mental language organ- acquisition ability. Thus, filtering is the first obstacle for the input to reach the mental language organ. In other words, the emotional factor plays a facilitating or hindering role in SLA. Krason also identified three key variables that affect the motivation, confidence and anxiety of the Affective Filter. High motivation, high self-esteem and low anxiety could alleviate the affective filter of students that will contribute to acquisition. Conversely, it hinders student's second language acquisition. Ehrman has done research by tracking two years of 16 good language learners of extrovert/introvert as cases. Wu found that two groups have different preference on some learning strategies, which have a certain trend of change in the course of two years of college English learning, so as to find out some different characteristics of the excellent language learners with extroverted/introverted personality.

When analyzing the different performances in English learning, many studies are based on case study and the results of questionnaire. As for the processing, Hendrickson put forward four questions: whether mistakes should be corrected; who should correct mistakes; when to correct mistakes; how to correct mistakes. "A separate complex construct of self-perceptions, attitudes,

feelings, and behavior relevant to classroom language acquisition originating from the uniqueness of language learning process," is how Horwitz and Cope described FLA. The state anxiety theory was the main focus of anxiety research in the 1970s when examining how worry affects language learning. They introduced the Foreign Language Classroom Anxiety Scale (FLCAS) as a gauge of anxiety since they understood the special characteristics of foreign language anxiety. The FLCAS is a 33-statement instrument designed to measure communication anxiety, test anxiety, and fear of receiving a poor evaluation, all of which are related to language anxiety. There are significant part-whole correlations between the FLCAS and the total scale. A Likert scale of 1 (strongly disagree) to 5 (strongly agree) is used to score each item on the FLCAS (strongly agree). Our study's data have been processed as a result of the aforementioned studies.

Based on Affective Filter Hypothesis, taking Shijiazhuang foreign language school, Hebei province as an example, this research is to investigate senior two students' attitude towards oral English error correction, explore how gender and personality are related to the attitude to oral error correction and put forward some in oral error correction strategies with the hope that the research can offer certain enlightenment teaching for English teachers.

2. Methodology

This paper uses the online questionnaire method. Based on the English Classroom Anxiety Scale (FLCAS) and the English-Speaking Anxiety Scale (FLSAS), the English-Speaking Error Correction Anxiety Scale was adapted. The other questions are about the attitudes and performances toward oral correction in English class. We put the collated questionnaires on the internet, and students filled them out by scanning the QR code. This online questionnaire includes 17 questions (besides Q17 for testing). Three questions are for basic information. Two multiple choice questions are about the students' preference of choosing correction methods and subjects. After two days, the data were collected by Sojump, a professional online questionnaire, assessment and voting platform.

2.1. Features of Participants

Shijiazhuang Foreign Language School, with foreign languages focus and inclusive teaching characters, highlights foreign languages. The school employs 10 foreign teachers to teach spoken foreign languages throughout the year. Students generally do well in English and focus on all aspects of English proficiency. The participants are students from Grade 11 with an average age of 17 years old. After sampling, 130 students' data is valid. Considering the actual ratio of male to female students, the sample data also adopted a ratio of 1 to 3, which is consistent with the actual situation.

2.2. Analyzing Methods

This paper adopts a literature study, quantitative analysis, comparative study and empirical study. Using SPSS is to analyze the relationship between personality and gender and attitude toward oral error correction. Normal distribution test, correlation, linear regression, and paired t-test were mainly used for the analysis.

2.3. Research Questions

We are going to find out the answers of the following questions: 1. To what extent gender and personalities can relate to students' attitudes toward oral error correction? 2. For internal and external personality, what kind of error correction strategy can teachers take for extroverted and introverted students?

3. Results and Discussion

During data analysis, it was found that gender was not significantly related to different performances. This paper will focus on the relationship between personalities (introverted and extroverted) and their respectively different performance. After analyzing these results, we will present the targeted discussions which will be detailed in Part 4.

Table 3.1 shows that all the data related to personalities is basically accepted as normal distribution on the basis of a sample size of 130 for all. (The absolute value of kurtosis is less than 10 and the absolute value of skewness is less than 3.)

Table1: The Results of Normal Distribution Test

Questions	Average	Standard Deviation	Skewness	Kurtosis	Kolmogorov-Smirnov Test		Shapiro-Wilk Test	
					D Value	<i>p</i>	<i>W</i> Value	<i>p</i>
3	1.746	0.819	0.502	-1.331	0.311	0.000''	0.753	0.000' ,
4	4.369	0.818	-1.729	3.981	0.295	0.000''	0.711	0.000' ,
5	4.438	0.817	-2.098	5.871	0.323	0.000''	0.662	0.000' ,
6	3.185	1.268	-0.354	-0.972	0.232	0.000''	0.890	0.000' ,
7	2.685	1.093	0.078	-0.919	0.196	0.000''	0.902	0.000' ,
8	4.046	0.963	-1.150	1.441	0.258	0.000''	0.811	0.000' ,
9	2.985	1.181	-0.113	-0.875	0.174	0.000''	0.912	0.000' ,
10	2.246	1.072	0.759	0.014	0.260	0.000''	0.864	0.000' ,
11	3.354	1.167	-0.101	-1.064	0.187	0.000''	0.897	0.000' ,
12	4.085	0.957	-1.142	1.242	0.257	0.000''	0.808	0.000' ,
13	2.454	1.072	0.429	-0.582	0.241	0.000''	0.891	0.000' ,

Table1: (continued)

3. Personality	4. Oral error correction is necessary in English classroom.
5. Oral error correction in English class is helpful for learning English.	
6. I am not afraid of making speaking mistakes in English class.	
7. I will feel embarrassed if the teacher points out my speaking problems in English class.	
8. I will correct my speaking mistakes in English class by myself.	
9. I will feel uncomfortable if I don't understand the English teacher's correction of speaking errors in class.	
10. I will be afraid when the teacher corrects my speaking mistakes in English class.	
11. I feel that other students speak English better than I do.	
12. I hope my classmates who speak English well to help me correct my speaking mistakes.	
13. I worry about being teased by other students when my mistakes corrected by the teacher in class.	

To verify the relationship of regression, we need to qualify the personalities to analyze their correlation. Considering realism, we focus on the relationship between introverts and extroverts on the attitude of oral error correction. So, the data of extrovert students is qualified to 100 and conversely the data of introvert students is 0.

Table 3.2 shows that there is a significant negative relationship between personalities and Q4, Q5, Q8, Q12, Q11 has a positive relationship with personalities. (p: -0.13, -0.15, -0.17, 0.05, -0.18)

Table2: The Results of Correlation Analysis

Pearson Correlation - Standard Format										
	4	5	6	7	8	9	10	11	12	13
3	-0.125	-0.145	0.135	0.126	-0.172	0.188*	0.195*	0.046	-0.180*	0.070
* $p < 0.05$ ** $p < 0.01$										
3. Personalities 4. Oral error correction is necessary in English classroom 5. Oral error correction in English class is helpful for learning English. 6. I am not afraid of making speaking mistakes in English class. 7. I will feel embarrassed if the teacher points out my speaking problems in English class. 8. I will correct my speaking mistakes in English class by myself. 9. I will feel uncomfortable if I don't understand the English teachers correction of speaking errors in class. 10. I will be afraid when the teacher corrects my speaking mistakes in English class. 11. I feel that other students speak English better than I do. 12. I hope my classmates who speak English well to help me correct my speaking mistakes 13. I wrong about being teased by other students when my mistakes corrected by the teacher in class.										

Among all the related questions, Table 3.3 shows that only Q12 has both correlations and linear regressions, negative correlation and negative impact, with personalities.

Table3: The Results of Linear Regression

n=130									
	Non-standardized coefficients		Standardization coefficient	<i>t</i>	<i>p</i>	VIF	<i>R</i> ²	Adjusted <i>R</i> ²	<i>F</i>
	<i>B</i>	Standard Deviation	<i>Beta</i>						
Constants	4.452	0.196	-	22.752	0.000**	-	0.032	0.025	<i>F</i> (1.128)=4.288, p=0.040
3.Personality	-0.210	0.102	-0.180	-2.071	0.040*	1.000			
Dependent Variable: 12.I hope my classmates who speak English well to help me correct my speaking mistakes. D-W Value: 2.042 * <i>p</i> <0.05 ** <i>p</i> <0.01									

Furthermore, in order to have deeper research on the different manifestations of introversion and extroversion, questions are divided into two groups (introverted students v.s. extroverted students) to be compared. This paper uses the method of paired t-test to analyze.

Table 3.4 shows that to some extent introverted students were different from extroverted students in their opinions on the subject of oral error correction in class. When the paired-samples t-test uses Cohen's d value to represent the effect size, the critical points for relatively small, medium and large effect sizes are: 0.20, 0.50 and 0.80. (T2 & T3: relatively small degree of difference T1: moderate degree)

Table4: The Results of Paired T-Test

Paired T-Test	p	Cohen's d
Test 1: Oral error correction in English classroom is necessary. Introverted Ss V.S. Extroverted Ss	0.006<0.05	0.495<0.5
Test 2: Oral error correction in English class is helpful for learning English. Introverted Ss V.S. Extroverted Ss	0.001<0.05	0.594>0.5
Test 3: I will correct my speaking mistakes in English class by myself Introverted Ss V.S. Extroverted Ss:	0.009<0.05	0.470>0.5

There are other corresponding results which are as follows: 90.7% of students think that classroom oral correction is necessary. 92.2% of students think that classroom oral correction is helpful for English learning. About 49.1% of students are afraid of making mistakes in English oral class. Nearly 66.8% of students do not feel sacred when the teacher corrects their oral mistakes in class. While correcting, more students don't feel embarrassed when the English teacher points out speaking problems in class but they will feel uncomfortable when they don't understand what the teacher wants to correct. Over 70% of students choose pronunciation and grammar correction. Most students choose teacher as their subject of correction. No matter what kind of personalities the students are, they prefer the combination of class and after class.

After performing the data analysis and combining all the results feedback, we can find the following relevant points that English teachers can pay attention to when choosing error correction strategies.

3.1. Learners' Personalities Should Be Fully Considered in Oral Error Correction

Teachers should fully consider the different personalities of learners when implementing error correction in class. According to research results, direct error correction and explicit error correction are adopted for extroverted learners. Such learners feel a sense of accomplishment as long as they successfully express themselves in a foreign language, even if their expressions are incorrect. Extroverted students tend to be more confident and less susceptible to environmental influences, so direct error correction is both necessary and beneficial. For the introverted learner, they are often very careful when expressing in the second language, which is determined by their personality. According to Eysenck's theory, introverts are easily influenced by their environment and respond easily to stimuli. Such learners tend to be shy and we can classify them as the careful type. In terms of personality, introverts tend to be emotionally stable, quiet, not good at social interaction, and like to think. According to Waldemar Marten, introverted learners are generally reluctant to take risks with language and are afraid of losing face by making mistakes when expressing in a foreign language. Such learners are extremely reluctant to speak in a foreign language that is grammatically incorrect and full of mistakes. They prefer to remain silent. They like to rehearse before they speak. Because introverted students are very demanding of themselves with a low self-esteem and less tolerance of oral errors, teachers should avoid direct error correction. No matter what kind of personality students, the following specific methods can be used to alleviate students' anxiety about oral error correction:

Firstly, learners' anxiety about foreign languages can be lessened by the relaxed and enjoyable in-class environment, in which it encourages learners to communicate and provide positive reinforcement to students' correct linguistic expression. It also allows students to put on a show or performance to get them involved in the classroom. Leave some time for students to absorb what they have learned. At the same time, teachers should not excessively correct students' oral errors in class. Because frequent error correction will make students become anxious and the classroom atmosphere becomes tense, which will eventually make students no longer participate in class activities.

Second, for students who are anxious, implicit error correction feedback strategies should be used as much as possible instead of explicit correction methods, which will make students feel nervous and depressed, as well as hurt their self-esteem, reducing their willingness to communicate and their ability to adjust their language output.

3.2. The Alternate Use of Teacher Correction, Peer Correction and Self-correction

First of all, the results of the questionnaire showed that most students preferred to be corrected by teachers and believed that teachers were more qualified and capable than students to correct errors. Under the premise of respecting the student's attitude to oral error correction, recast, as a kind of recessive oral correction strategy, does not interrupt the flow of communication with features of timing saving, protecting students' self-esteem, focusing on the meaning and easy to control.[12] Teachers should focus on meaning and communication during oral error correction, and mainly use metalinguistic feedback, induction and other prominent methods for oral error correction, which not only focus on the meaning but also attract learners' attention to the language form, so as to foster a balance between the linguistic form and the expression of meaning.

One of the principles of the in-class error remediation strategy is to encourage learners to correct themselves[13]. Therefore, teachers should encourage students to self-discover and correct mistakes. By using this method, teachers can attract students' attention and deepen their learning impression. In many cases, the effect is better than teachers' correction.

In addition, when students can't correct their own mistakes, teachers can give some time to guide students to correct each other's mistakes. The collective scaffolding aids in the development of second language proficiency. Swain also mentioned that cooperative dialogue among learners' aids in second language acquisition. When learners provide error correction feedback to one another, they are not only the recipients of error correction feedback, but also the providers of error correction feedback. This dual identity helps them develop their second language skills. Not only do students have the opportunity to focus on their own language errors in interactions, but they also can pay attention to the language errors expressed by their peers. This kind of error correction method not only protects students' self-esteem but also won't hurt students' enthusiasm to participate in class. Mutual error correction can give students time to think and listen, and cultivate the quality of cooperative learning and communication and inquiry.

3.3. Employ Various Verbal Error Correction Strategies for Various Forms of Language

The difference in the effect of error correction on the acquisition of different language forms is primarily due to two factors: one is related to the saliency of language forms themselves, and the other is related to learners' cognitive processes on various language rules. Correction of errors has a significant impact on pronunciation, vocabulary, and grammar acquisition. Because the salience and complexity of language form affect the effect of error correction feedback, the recast method has a better effect on language structures with high salience like pronunciation and vocabulary. However, cognitive perception and processing of grammar by learners involves more complex and time-consuming processes, while cognitive vocabulary processing is relatively easy and quickly finds the

right responses. The significance of the metalinguistic cues is strong, and the effect is better for the language forms with poor communication and insignificant pronunciation. It not only helps to pay attention to the differences between the two languages, but also the language knowledge contained in the metalinguistic cues further strengthens the language understanding [14]. Therefore, for relatively complex grammatical forms, explicit error correction strategies such as metalanguage cues are more effective.

3.4. Balance between In-class Immediate Error Correction and Out-of-class Delayed Error Correction

Immediate error correction feedback and delayed error correction feedback have different contributions to the improvement of students' oral English. The immediate error correction feedback is more conducive to the learning of procedural knowledge, while the delayed feedback is more likely to promote learners' understanding of the metalinguistic knowledge under the condition that learners reflect on the correction they have received. the former will promote the learning of tacit knowledge, while the latter will strengthen the learning of explicit knowledge. For example, in the interaction between teachers and students in an English classroom, the teacher should use an immediate error correction strategy to allow learners to immediately notice the gap between their interlanguage and the target language, and provide the opportunity to immediately adjust the language output to promote the development of recessive knowledge learning and communication skills. In terms of homework and after-class activities, delayed error correction feedback should be used without interfering with learners' communication flow. Typical language errors should be summarized and analyzed after students have completed their oral expression in order to improve their metalinguistic awareness and enhance the understanding and acquisition of explicit knowledge. An extra line space should be added above and below the equation.

4. Conclusion

This paper focuses on studying the attitude of students toward oral English correction during English classes and to what extent the indicators of gender and personality can relate to such attitude. Correcting oral errors is not only an important second-language learning mechanism, but also a common teaching method. In-class education is a combination of science and art. Although theories and research on second language acquisition show that correcting errors is advantageous to the development of second language proficiency overall, the impact of correcting errors in the classroom will be influenced by the language form, the teaching environment, individual learner differences and other corresponding factors. As Brown points out that for correct verbal errors, it is a must for teachers to develop the insight acquired through teaching practice and theoretical study to choose appropriate error correction strategy at any given time. Future studies are suggested to provide more information of this issue.

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