

A Correlational Study on Openness to Experience Trait, Attitude and SLA Proficiency of Chinese Undergraduate Students Based on Socio-educational Model: A Research Proposal

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Abstract:

This study took a comprehensive approach to investigate the correlation between personality traits (openness to experience), attitudes towards second language acquisition (SLA), and SLA ability among Chinese undergraduate EFL students. The study utilized the Big-Five personality test, attitude questionnaire, and speaking interviews with 35 participants, ensuring a thorough exploration of the subject. Based on socio-educational model, the study found a strong correlation between personality trait, attitude and proficiency, emphasizing the impact of personality on attitudes in language learning.

Keywords: Second language acquisition; EFL; Big Five Personality Model; Socio-educational model

1. Introduction

1.1 Background

Many parents believe that specific personality traits can lead to better learning outcomes. For example, children who are more outgoing and adventurous can do better in second language learning. However, we want to explore this with scientifically sound research. This has led our research to include personality as one of the research object. In compulsory education as well as in high school, the spoken language of Chinese students is not a key part of their education. First of all, few schools have a separate speaking program in their curriculum. Instead, there will not be frequent speaking training until the college entrance examination. It can be said that speaking is of a test-oriented nature in Chinese education system. Secondly, the speaking test is not emphasized as much as other parts. In the unified college entrance examination, which is also known as Gaokao, speaking is independent of the written examination and accounts for a small percentage of the score. Carter and McCarthy also state the phenomenon that writing skills has been emphasized more [1].

However, speaking is quite critical in assessing the comprehensive language ability. It's critical in evaluating the students' exposure content to the target language because

in learning speaking skills, learners must know how native speakers communicate [2]. Also, speaking is one of the most important things in the process of language learning because that students will be acknowledged of their ability on language skills if they can master and demonstrate the ability to speak well and correctly in English [3]. As a result, we decided to choose speaking skill as the research object.

1.2 Literature Review

1.2.1 The influence of personality on language learning

Previously, it had been discovered that personality influences language learning by relating to different relevant factors. According to Eysenck, student's personality is important, affecting how they learn foreign languages [4]. Jenson also stated that personality is important in student's academic performance due to its effects on academic achievement [5]. In addition to these more overarching perceptions, a number of scholars have explored different perspectives on the factors that influence learning outcomes. Allport proposed that personality refers to the dynamic organization within the distinctiveness of psychological systems which can affect individuals in behavior and thinking [6]. Continually, the changes in thinking process possibly have impacts on language learning.

Allport's opinion has revealed that personality may have influence on language learning, taking behavior and thinking process as the mediations. Another researcher stated that personality is highly related to the thinking pattern, social adjustments, feelings, and behaviors [7]. Thus, it is determined that personality can be important in affecting language learning outcomes.

Many models measuring personality trait tendencies have been developed to facilitate research. In this study, the Big Five factor model of personality will be used to evaluate the personality traits of students. The model was constructed based on Goldberg's five-dimension personality model. We will utilize the dimension of openness to experience to discover that whether the differences in openness to experience will be a correlation factor in language learning outcomes. The dimension refers to the tendencies of individuals to be good at imagining, independent, in favor of diversity [6].

To draw a conclusion, the existing studies have proved that personality has impacts on language learning through different aspects, like thinking patterns, behavioral patterns etc. However, there still exists research gap that personality is barely considered as another factor which may have correlation with attitude in socio-educational model. In the research process, through the assistance of questionnaire, students' attitudes are quantified into numbers. Through subsequent correlation analysis, the correlation between personality and socio-educational model will be discovered.

1.2.2 The influence of attitude on language learning

In previous studies, it was found that attitude has relationship with second language acquisition. Abidin et al. proposed that attitudes toward learning have significant

influence on students' behaviors and then on the performance [8]. To be specific, more positive the attitude towards learning is, the more possible that the performance outcome will be.

In the context of language learning, the socio-educational model is often used to explain the learner's attitudes and judgements about the act of second language acquisition itself. According to Gardner, socio-educational model claims that learning attitude can be divided into two basic attitudes, integrativeness and attitudes toward the learning situation [9]. Integrativeness refers to the desire to acquire a second language to establish communication with members of the target community [10]. Attitudes toward the learning situation refer to the students' own evaluation of the language teacher and the course to which the acquirer is exposed. Besides the two basic dimensions, in a more formal version by Gardner, a third dimension was included. The third dimension is language anxiety, which refers to the worry about possible difficulties and negative outcomes in learning process.

The whole model basically explains the relationship between the three dimensions and language learning outcome. To be specific, the three dimensions form the second language learning attitude, which affects the learning motivation. Subsequently, the motivation will shape the language learning outcomes. The outcomes can be shown in different aspects, including speaking ability, writing ability, reading ability in second language etc.

Motivation in the model acts as the mediator between the three influences and achievement in the language [11]. The key trait is that the three key factors (i.e. integrativeness, attitudes toward the learning situation and language anxiety) do not directly affect the learning outcomes.

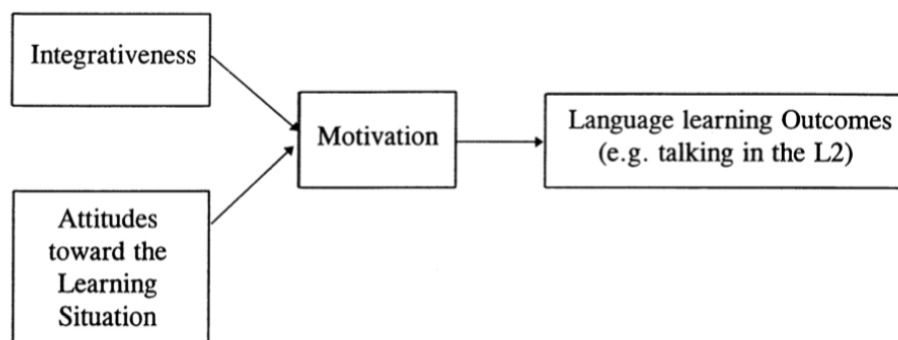


Figure 1. Portion of Gardner's (1985) socio-educational model [10]

The previous studies have studied that attitude acts as a key factor in affecting language learning outcome, but there still are some gaps that needs to be filled. In terms of modelling, we wanted to extend on Gardner's socio-educational model.

That is, to use the whole model as a mediator to explore the role of personality traits on socio-educational and ultimately for language learning outcomes.

1.2.3 The factors that could influence speaking proficiency for Chinese students

This research will be based on Chinese college students taking English as second language. In addition, the final assessment will be made on the students' speaking ability. So, the factors influencing speaking proficiency will be taken into consideration, such as performance environment, emotive aspects and listening ability [12].

Firstly, performance environment (both on-campus and off-campus) for Chinese students would influence the amount of daily verbal output of the second language they learn, and ultimately impact on their practice result. For instance, if the student only speaks English in their English class and did not use English outside of class to communicate with people, their use of language would be mostly based on the textbook and exam-requisite materials, which would be different from what the language would be used in a more casual and daily life circumstances.

Moreover, emotive aspects including motivations and emotions toward the target language could influence speaking proficiency for Chinese students. According to past researches on correlation between nervousness, relation of self and speaking performance on Korean learners, the conclusion is that there's a negative correlation between stress and oral performances [13].

Last, be able to listen and understand others speech could influence speaking proficiency for Chinese student since improvements for speaking skills highly depend on the learning of listening skills. By listening to others and learn their way of communication, it could eventually promote the efficient and accurate transfer of information by speech. [14]

1.3 Research Question

Research Questions are stated below:

RQ1: Does there exist correlation between Openness to Experience trait and attitudes toward foreign language learning?

RQ2: Is attitude the mediation between personality and speaking outcome or would personality have direct correlation with proficiency without the presence of attitude?

1.4 Prediction

The results can be predicted that there is a positive correlation between [personality with attitude] and proficiency, personality and attitude, attitude and proficiency, and personality and proficiency. Individuals with a higher or a more positive attitude correlate to higher second language proficiency in English, and individuals who score higher in "openness" in the big-five personality trait test would achieve higher proficiency. As the correlation for all four

groups is positive, the attitude would be the mediation in the personality and second language acquisition process.

2. Method

2.1 Participants

36 participants will be involved in the present study. The sampling method of participants in this study is convenience sampling, in which the authors sampled undergraduate students who are accessible around them. The educational background of the participants was set as undergraduate students in mainland China. Age corresponds to the stage of education. Subjects will be students enrolled in their senior year in the English Department. These students have experienced at least two years of study in an English major with similar academic accumulations. To ensure that the participants' speaking level can be effectively examined through the speaking test, the sample obtained after the test should be a complete and valid speaking corpus, the subjects needed to have the ability to complete the test in its entirety. Therefore, the background of the participants was further restricted to English majors. Besides, the present study is a correlation study between the personality and participants' speaking level. Therefore, whether the participants' speaking has been trained outside the higher education classroom or not will be used as a control variable to be restricted in the test. Students who have received professional training in IELTS and TOEFL speaking programs will not be considered when screening subjects.

In terms of gender, we set a standard of half female and generally male for the 36 subjects. The ratio of females to males was 50 per cent. This minimizes the impact that gender differences may have on the study. In terms of visual acuity, we were less demanding. Subjects should have normal vision and be able to read the questionnaire instructions, test instructions and other information.

2.2 Material

The experiment will be conducted through three separate assignments: (1) Big Five Personality trait test, (2) Questionnaire, and (3) Interview.

2.2.1 Big Five Personality Trait Test

The present study focuses on the Openness to Experience dimension among the Big Five Personality Types to fill a gap in previous research. However, there is no separate personality trait corresponding to each question in the test. The five personality traits are reflected by all the questions combined. Therefore, subjects must complete the full Big Five Personality test. For the creation of the questionnaire, we chose to select the questionnaire from the website big-five-test.com.

The whole questionnaire includes 120 items, which takes approximately 10 minutes to complete. For each item, there are five options to choose from. The options correspond to five levels of agreement with the description of the item, which are “Very Inaccurate”, “Moderately Inaccurate”, “Neither Accurate nor Inaccurate”, “Moderately Accurate” and “Very Accurate”. After completing the questionnaire with 120 questions, a bar chart will be shown. Each bar shows the value of one trait. Also, for each dimension there will be specific instructions explaining the qualities of certain dimension and the way in which it is manifested. Values range from 0 to 120. The value of Openness to Experience will be selected.

In the study, we will collect the value of Openness to Experience as well as the percentage (ratio of numerical value to 120) to experience in the five dimensions for subsequent calculations and research.

2.2.2 The Attitude Motivation Test Battery (AMTB)

In the present research, the questionnaire to evaluate the students’ attitude towards English learning will be adapted based on the Attitude Motivation Battery (AMTB) questionnaire. The validity was shown by Gardner that the bulk of their research on second language acquisition was

based on the questionnaire [11].

To assess the level of attitude and learning motivation of participants, AMTB is chosen in the research which was based on socio-educational model. For English acquisition, for studies conducted in early 2000s, an AMTB version for English learners was developed [11]. 104 likert items with 12 scales, among which 8 had equal number of positively and negatively keyed items. The manuscript with item keys showed the numbers of items which are positive or negative in different scales (e.g., Interest in Foreign Languages, Parental Encouragement). The test and item keys can be found on Gardner’s own web page: <http://publish.uwo.ca/~gardner/>.

The AMTB test questionnaire consists of two parts. The first part concludes 104 questions. These 104 questions focus on the feelings and motivation of participants on English acquisition. The second part concludes 12 questions. These 12 questions focus on the participants’ favorability or unfavorability of English acquisition.

Four classes, Integrativeness, Attitudes toward the Learning Situation, Language Anxiety, Motivation are included in the test. The table below shows the scales by which the four classes will be assessed.

Class of complex variables	Scales
Integrativeness	Integrative Orientation (IO) Attitudes toward the Language Community (ALC) Interest in Foreign Languages (IFL)
Attitudes toward the Learning Situation	Teacher Evaluation Course Evaluation
Language Anxiety	Language Class Anxiety Language Use Anxiety
Motivation	Motivational Intensity (MI) Desire to Learn the Language (D) Attitudes toward Learning the Language (ALL)

Figure 2. Affective Scales in the Socio-Educational Model [11]

According to Gardner, the items are answered on seven-point Likert scales [11]. While scoring individual scales, “use is made of item mean scoring” so that scale scores are also on 1-7 points scales. The quantitative analysis method is to compare mean and standard deviation of each scale to obtain general impression of attribute in sample group.

2.2.3 Speaking Test

The speaking test will be conducted with the speech topic “My Campus Daily Life”. The participants will have to give a speech for 3 minutes under the topic. Before giving

speech, the participants will be given 1 minute to think about the topic and prepare for the whole speech.

All the participants will be acknowledged of the fact that the whole speech will be recorded by sound recorders without video recording. We will not begin the test without the participant’s permission. For those who refuse to be recorded, the assessment of the speech will be done on the spot by two researchers together.

The assessing method is based on the Practical Rating Rubric of Speaking Test (P2RST) constructed by Latifa et al. [15]. In the research by Latifa et al., there are different

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scales corresponding to the different performances of the subjects.

Scales	Descriptors:
0	The speaker is not able to use the rule of (vocabulary competence, syntactic competence, pronunciation, discourse competence, strategic competence) on his or her utterances at all .
1	The speaker is able to perform (vocabulary competence, syntactic competence, pronunciation, discourse competence, strategic competence)but The speaker still makes many (approximately 57% to 75 %) ungrammatical production The speaker Only produced the related vocabulary (approximately 25% to 49%) The speaker still makes mispronunciation approximately 66-86 % Speaker disconnected discourse (approximately 67 to 83.3% disconnected meaning)hesitation in utterance
2	The speaker is able to perform (vocabulary competence, syntactic competence, pronunciation, discourse competence, strategic competence) even he or she still makes some ungrammatical production/ unrelated vocabulary/mispronunciation/ disconnected discourse/ hesitation in utterance Even, he or she still makes some lacks of formality (approximately 50 % to 60%) The speaker only produced 38% to 50% words still employ a number of times to recall the words. Still makes some mispronunciation (approximately 50% to 62%) The speaker still produces some unconnected utterances (approximately 50% to 66%) The speaker still has some problems to communicate his/her meaning (approximately 50%).
3	This level describes that the speaker is able to perform (vocabulary competence, syntactic competence, pronunciation, discourse competence, strategic competence)in (he or she still makes few ungrammatical production/unrelated vocabulary/mispronunciation/ disconnected discourse/hesitation in utterance The speaker still makes few lacks of formality (approximately 10-30%) The speaker is able to produce approximately 67-90% the related words but still employ few times to recall the words. The speaker still makes few mispronunciations (approximately 10-33%) The speaker still making few unconnected meaning in communication (approximately 33%) The speaker still has problem to communicate his/ her meaning (approximately 16.7%)
4	This level describes that the speaker is able to perform (vocabulary competence; syntactic competence, pronunciation, discourse competence, strategic competence) no mistake . Seems there is no mistake in grammar Very fluent & seems there is no difficulty to produce words. Utter the words, phrases, sentences close to native ‘ pronunciation The speaker is fluently uttered the language which seems there is no problem in communication.

Figure 3. Descriptors and the Corresponding Scales [15]

After the assessment of different competences, the P2RST has a systematical scoring process. The figure is stated below [15].

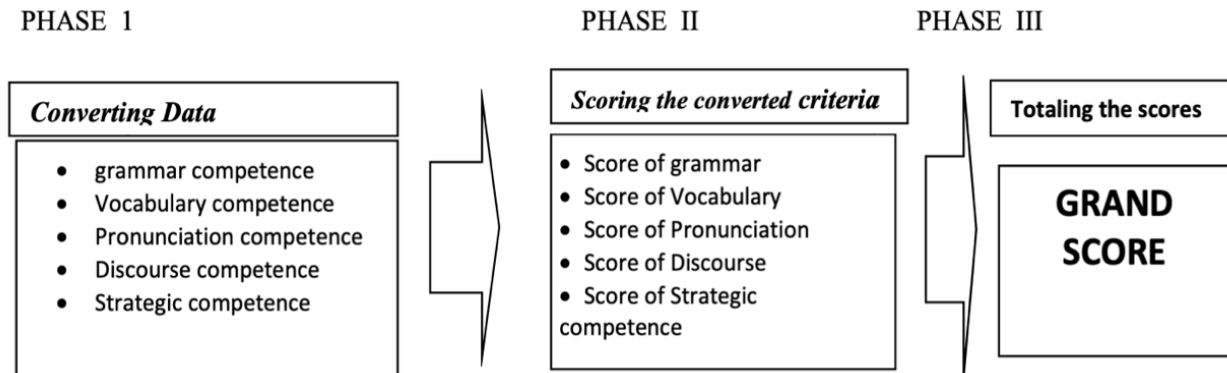


Figure 4. The illustration of mechanical scoring or P2RST [15]

Based on the assessment system, our present research will obtain the grand scores of participants. Subsequently, the scores will be used in the correlation analysis.

2.3 Procedure

The whole procedure consists of four main parts: Personality Trait Test, Attitude Test, Speaking Test, Correlation Analysis of Data.

In Personality Trait Test, according to the pilot test, the personality test takes up to 15 minutes to complete, and the test will be done on separate occasions in the participants' own time. After the test, the score of Openness to Experience will be collected. The data will come in as scores.

In Attitude Test, the participants will spend about 20 minutes to complete the AMTB test. After the test, the data will be collected to evaluate what the attitude tendency is (i.e. positive or negative). The data will come in as scores. In Speaking Test, the test will be restricted to 4 minutes, including 1 minute for them to prepare and another 3 minutes for them to speak. After the test, the recorded material will be collected. Based on the scale-assessment method proposed by Latifa et al., the grand score will be obtained for correlation analysis. The data will come in as scores.

In correlation, after the scores been collected and averages been calculated, a Pearson correlation coefficient will be calculated for the following four groups:

1. [personality with attitude] and proficiency
2. personality and attitude
3. attitude and proficiency
4. personality and proficiency

By calculating the scores for each subsection, and the correlation between two scores in one group, this comprehensive assessment will enable us to determine the relationship and correlation between personality, attitude, and speaking proficiency. Moreover, it allows us to testify the impact of whether attitude pose as a moderator or insignificant toward the relationship.

3. Conclusion

3.1 Data Pattern

As hypothesized, attitude as a moderator, attitude would have a positive correlation between personality trait (scores), as high score in openness trait correlate to positive attitude then ultimately result in higher proficiency of second language acquisition.

According to statistics, if $p < 0.05$, it means the result would be statistically significant at the 95% confidence interval. The moderating effect of attitude on the relationship of openness personality trait and second language proficiency is significant and not a one-time occasion. At the same time, as $0 < r < 1$, it indicates that personality trait and second language proficiency have a positive correlation, and attitude reinforced this positivity.

At the other hand, if $p > 0.05$ and $r < 0$, this shows that the relationship between personality trait and second language proficiency have a negative correlation and it is also statistically not significant. Meanwhile, attitude did not influence this relationship of personality trait and second language proficiency as expected. This means there's more samples and procedures required to make new hypothesis.

3.2 Implications

This study explored several sets of correlations: between personality and attitudes, between attitudes and learning outcomes, between personality and learning outcomes, and the plausibility of the entire three-loop correlation chain. The aim of this study was to investigate the role of personality on the basis of socio-education model. Therefore, the outcome of this study is to enhance the expandability of putting socio-education. This study will also be able to extend more possibilities in favour of the scientific development of second language education.

3.3 Limitations

The research still has limitations in different aspects. Firstly, the sample size is still limited. The sample was

limited to Tongji University in Shanghai. The findings can be difficult to generalize. Secondly, the two questionnaires are demanded to finish by participants themselves at home. The environmental conditions cannot be controlled. It cannot be guaranteed that participants will finish the questionnaires conscientiously. Thirdly, the evaluation of speaking ability has shortcomings. Some errors made in speaking test do not necessarily reflect the deficiency in speaking ability. The method can be further improved for future studies.

3.4 Further Study

The innovation of this study is the addition of personality to the first link in the chain of influence based on the socio-educational model. Based on this, the present study explored the correlation between openness to experience via the role of attitude in speaking achievement. At the same time, context was placed in the context of EFL college students in China, filling the current research gap. This study explores more possibilities of influencing the socio-educational model and brings more research bases for more studies in the future.

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Xinyi Pan, Yilin Fang contributed equally to this work and should be considered co-first authors.

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