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# College Student Personality Traits Related to TOEIC and GEPT

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## **Bio Data:**

Chia-Hui Lin was born in Taiwan and currently works at Toko University.

## **Abstract**

Personality had been conceptualized from different theoretical perspectives. Many psychologists had divided language of personality as important and useful for daily interaction. Thus, personality traits seemed to be an important factor in achieving educational goals for students learning foreign languages. TOEIC and GEPT tests measured English proficiency for the international working environment and educational organizations. A number of colleges and universities also employed TOEIC and GEPT tests as tools for student placement, tracking progress, and program evaluation. This study quantitatively examined non-experimental relationships among personality traits, TOEIC, GEPT, foreign language classroom anxiety, classroom structure, and satisfaction. A total of 110 surveys were distributed, and 100 surveys were returned, with a return rate of 91%, with 9% missing data. Results showed that 3 of the 5 examined personality traits were statistically significant. Furthermore, TOEIC and GEPT tests did not influence personality traits, and GEPT participation had more statistical significance than TOEIC participation for student personality traits. The findings did not help statistical differences in foreign language classroom anxiety, and classroom structures for satisfaction and personality traits. The results of this research might influence educational organizations, government, and company decisions and strategies. Future studies should be enlarged to strengthen the generalizability of this research.

*Keywords:* personality traits, TOEIC, GEPT, foreign language classroom anxiety, classroom structure, and satisfaction.

## **Introduction**

Personality has been conceptualized from different theoretical perspectives (John, Hampson, & Goldberg, 1991; McAdams, 1995). Personality theory assumes that everyone is different and that people are uniquely characterized. Personality has been studied in various manners pertaining to different forms of processing and learning styles (Sharp, 2008). Many psychologists (Klages, 1926; Baumgarten, 1933; Allport & Odbert, 1936) have divided language of personality as important and

useful for daily interaction. Thus, personality traits seem to be an important factor in achieving educational goals for students learning foreign languages (Erton, 2010).

The Educational Testing Service (ETS) developed the Test of English for International Communication (TOEIC) in 1979 in Japan to improve international business and trade (ETS, 2008). Nearly 5 million people took the TOEIC in 2009, which is recognized by thousands of corporations as a measure of employee English proficiency (Yasuo, 2009). Another common test in Taiwan is the General English Proficiency Test (GEPT), which was developed in 1999 and commissioned by the Ministry of Education (MOE) in Taiwan. The Taiwan MOE encourages Taiwanese English proficiency (Roever & Pan, 2008). To date, approximately 2.7 million examinees have registered for all levels of the GEPT (Mouth of World, 2010). Primary schools and numerous colleges require students to take the GEPT in Taiwan (Pan, 2009). The TOEIC and GEPT now play an important role in Taiwanese society, with English learning focusing more on communication skills. The TOEIC and GEPT are thus critical to the development of performance effectiveness on the global stage (Public Relationship Department, 2005).

In addition to the relationship between personality and the TOEIC or GEPT, the purpose of this research is to investigate the relationship between college students' personality traits and how students having different personality traits may affect foreign language classroom anxiety, classroom structure, and satisfaction.

## **Literature Review and Hypothesis Development**

### **Personality Traits**

Allport (1961) defined "Personality is a dynamic organization, inside the person, of psychophysical systems that create the person's characteristic patterns of behavior, thoughts and feelings." A personality factors model was also published by Fiske (1949). During the 1960s and 1990s, many researchers (Tupes & Christal, 1961; Norman, 1963; Goldberg, 1993; Digman, 1996; John, Angleitner, & Ostendorf, 1988; McCrae, 1992) combined and supported the five factors.

The five factor model is commonly measured by Costa and McCrae (1992) who developed the NEO-PI-R personality traits inventory, which includes five factors: Neuroticism; Extraversion; Openness; Agreeableness; and Conscientiousness. Table 1 and Fig. 1 show trait facets associated with the five domains of the five-factor model of personality.

Table 1  
*Trait Facets Associated with the Five Domain Model of Personality*

Neuroticism:	Anxiety, hostility, depression, self-consciousness, impulsiveness, vulnerability
Extraversion:	Warmth, gregariousness, assertiveness, activity, excitement-seeking, positive emotions
Openness:	Fantasy, aesthetics, feelings, actions, ideas, values
Agreeableness:	Trust, straightforwardness, altruism, compliance, modesty, tender-mindedness
Conscientiousness:	Competence, order, dutifulness, achievement striving, self-discipline, deliberation

Adopted from "Personality Traits" by Matthews and Deary (1998), Cambridge, University Press.

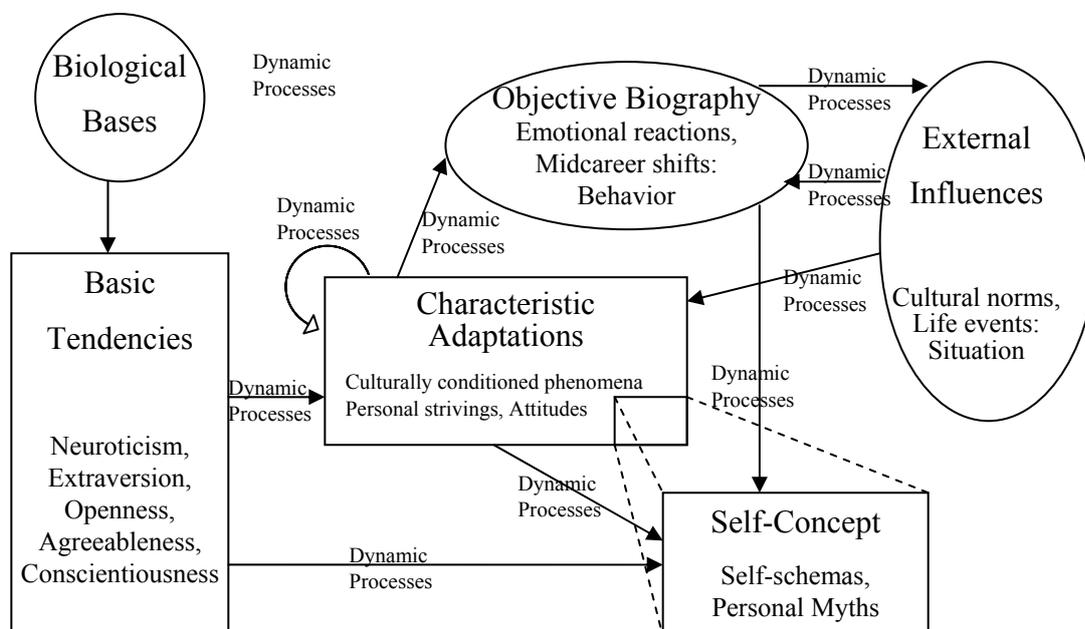


Figure 1. Operation of the FFT personality system. Adapted from "Personality in Adulthood" by McCrae and Costa (1996, 2003), 2<sup>nd</sup> Edition, New York: Guilford Press.

A number of studies have examined the effects of personality traits for students' satisfaction from academic achievement in second language learning (Kiany, 1998; Bratko, Chamorro-Premuzic, & Saks, 2006). Personality is an important factor that provides a framework of individual description and individuality. Personality can predict the likelihood of future academic success or failure (Duff, Boyle, Dunleavy, & Ferguson, 2004; Laidra, Pullmann, & Allik, 2006).

*Extroversion Preferences*: "Directing energy mainly toward the outer world of people and objects" (Myers, et al., 1998, p. 6). The opposite of introversion (Jung, 1923). *Introversion Preference*: "Directing energy mainly toward the inner world of experience and ideas" (Myers, et al., 1998, p. 6). According to personality type

classification developed by Eysenck (1990), extraverted and introverted person engaged in emotional face processing were found to show differential cortical activations (Fink, 2005).

### **TOEIC and GEPT**

Alderson and Wall (1993) stated that “tests are held to be powerful determiners of what happens in the classroom” (p.15). Tests such as the TOEIC and GEPT are major determiners of course curricula in Taiwan, where they are used as a graduation threshold for English language learning (Pan, 2009). The TOEIC is also commonly used in Japan as a benchmark of English proficiency when applying for employment (Sinharay et al., 2009). A large number of schools use the TOEIC to place students into English language levels and to evaluate program effectiveness (McNanara, 2000). The TOEIC is a registered trademark that concentrates on English for business purposes, and the test demonstrates how well employees speak and understand English (Lougheed, 2003).

The GEPT measures listening, reading, writing, and speaking skills on five levels: Elementary, Intermediate, High-Intermediate, Advanced, and Superior. Test-takers must pass the first stage of Listening and Reading sections before proceeding to the second stage of Writing and Speaking, prior to receiving GEPT certificates (Roever & Pan, 2008). However, many college students experience classroom anxiety and fear because of answering and practicing answers in English during class (Chuang, 2010).

### **Foreign Language Classroom Anxiety**

According to Horwitz, Horwitz, and Cope (1986), foreign language anxiety is “as a distant complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process also differs from general communication anxiety” (p.128). Other research (Chan & Wu, 2004; Crookal & Oxford, 1991) showed that anxiety can impede language learners’ productivity and achievement. Horwitz, Horwitz, and Cope (1986) identified three anxieties related to communication: (1) apprehension (fear of communicating with others); (2) test anxiety (fear of examinations and assignments evaluating student performance); and (3) fear of negative evaluation (concern with how other people view the speakers) as having an influence on language learning.

### **Classroom Structure**

Liu and Jackson (2008) identified a significant correlation between language anxiety in the classroom and language proficiency. The SPECSS structures define authority, task, grouping, reward, evaluation, and time structures as the basic building blocks of classroom and school organizations (Epstein, 1988). Squires, Huitt, and Segars (1981, 1983) proposed a model for improving classroom and school effectiveness and effecting change in educational fields. Individual perception toward the environment influences learner needs. Therefore, the classroom environment affects learners’ behavioral, affective, and cognitive patterns (Pintrich & Schunk, 2002).

### Student Satisfaction

Satisfaction is defined as the “the state of a person whose performance (or outcome) has fulfilled his or her expectations. Experiences of success provide students with more power to achieve their goals (Ebata, 2008). Satisfaction is thus a function of relative levels of expectation and perceived performance” (Hom, 2002, p.6). Language learner satisfaction can result in language learning (Beltyukova & Fox, 2002). To experience students’ learning language success with satisfaction in the classroom, it is essential to provide a relaxing learning environment that contains various materials and activities. Gradually, the classroom becomes more challenging and effective for students to achieve satisfaction (Ebata, 2008).

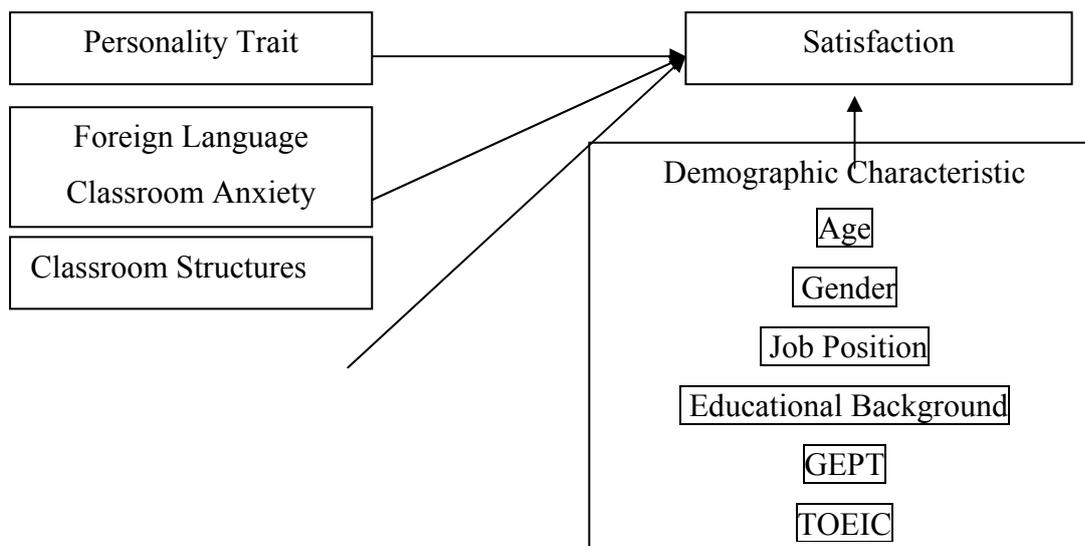


Figure 2. Theoretical framework

### Hypotheses

H1: The TOEIC and GEPT have statistical significance for personality traits.

H2: The TOEIC has more statistical significance than the GEPT for personality traits.

H3: Student satisfaction (interaction, structure, and support) has statistically significant explanatory variables of perceived personality traits (conscientiousness, extraversion, agreeableness, openness, and neuroticism).

H3a: Student satisfaction (interaction, structure, and support) has statistically significant explanatory variables of perceived personality traits with *conscientiousness*.

H3b: Student satisfaction (interaction, structure, and support) has statistically significant explanatory variables of perceived personality traits with *extraversion*.

H3c: Student satisfaction (interaction, structure, and support) has statistically significant explanatory variables of perceived personality traits with *agreeableness*.

H3d: Student satisfaction (interaction, structure, and support) has statistically significant explanatory variables of perceived personality traits with *openness*.

H3e: Student satisfaction (interaction, structure, and support) has statistically significant explanatory variables of perceived personality traits with *neuroticism*.

H4: Foreign language classroom anxiety and classroom structures have statistically significant explanatory variables for satisfaction (interaction, structure, and support) and personality traits (conscientiousness, extraversion, agreeableness, openness, and neuroticism).

## Research Methodology

### Research Design

The research design in this study used non-experimental, quantitative, SPSS 17.0 multiple regression analysis, ANOVA, two-way ANOVA, and MANOVA to explore the relationship of personality traits, foreign language classroom anxiety scales, classroom structure, and satisfaction. The five questionnaires included (1) *Background Demographic Characteristics* developed by the researchers, (2) personality traits measurement by items from *NEO-PI-R* developed by Costa and McCrae (1992), (3) foreign language classroom anxiety measurements by items from the *Foreign Language Classroom Anxiety Scale (FLCAS)* developed by Horwitz, Horwitz, and Cope (1986), (4) classroom structure measurements by items from *Students' Perceptions of Classroom Structure Scale (SPECSS)* developed by Church, Elliot, and Gable (2001), and (5) satisfaction measurements by items from *Course Interaction, Structure, and Support (CISS)* developed by Johnson, Shaik, and Palma-Rivas (2000).

The *Background Demographic Characteristics* are age, gender, work-related questions, educational level, GEPT test-taking experience, and TOEIC test-taking experience. The *NEO-PI-R* explores five factors: (a) Neuroticism, (b) Extraversion, (c) Openness, (d) Agreeableness, and (e) Conscientiousness. The *SPECSS* explores six factors: (a) task, (b) authority, (c) reward, (d) grouping, (e) evaluation, and (f) time. The *CISS* consists of three subscales: (a) interaction, (b) structure, and (c) support. The study used 110 responses randomly selected from college students in Taiwan. The design focused on quantitative methods with close-ended questions on the survey.

### Population and Sampling Plan

**Target population.** According to the Taiwan Ministry of Education Department of Statistics (2010), nine colleges and universities are in Taichung City and County, and three colleges and universities are in Chiayi City and County. Target populations were 110 college students in Taiwan. The students' age of 18 to 41 were tested, students' parents educational background from middle school to PhD were also tested in the study.

**Accessible population.** The convenience sample included students enrolled in Asia University and Toko University. Asia University is a newly established private school in Taichung County, and is recognized for research and teaching in health care, computer science, and management. ToKo University was established in 2001, and became a practical university in 2010.

**Sampling plan.** The entire accessible population was invited to participate in the study. However, the final data-producing sample was self-selected depending on those who agreed to participate in the study.

### Instrumentation

The study survey consisted of five parts: (1) *Background Demographic Characteristics*, developed by the researchers, (2) *NEO-PI-R*, developed by Costa and McCrae (1992), (3) *Foreign Language Classroom Anxiety Scale (FLCAS)*, developed by Horwitz, Horwitz, and Cope (1986), (4) *Students' Perceptions of Classroom Structure Scale (SPECSS)*, developed by Church, Elliot, and Gable (2001), and (5) *Course Interaction, Structure, and Support (CISS)*, developed by Johnson, Shaik, and Palma-Rivas (2000).

### Results

This study examined relationships among TOEIC, GEPT, foreign language classroom anxiety, perceptions of classroom structures, satisfaction, and personality trait variables. Of the 110 surveys, 100 were returned, with a return rate of 91% and missing data of 9%.

### Hypotheses

H1: TOEIC and GEPT had no statistical significance for personality traits,  $p = .114 > .05$ . Hypothesis 1 was not supported.

Table 2

*ANOVA Analysis of TOEIC, GEPT and Personality Traits*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	162.822	1	162.822	734.339	.000
GEPT * TOEIC	1.362	3	.454	2.047	.114
Error	17.738	80	.222		
Total	1055.000	90			
Corrected Total	21.389	89			

a. R Squared = .171 (Adjusted R Squared = .077)

H2: Table 2 shows that the *R Square* value of the model accounted for 4.2% of the variation in TOEIC and personality traits, and 7.1% with GEPT and personality traits. Research Hypothesis 2 was not supported.

Table 3

*Multiple Regression R Square Analyses of TOEIC, GEOT, and Personality Traits*

	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
TOEIC	1	.204(a)	.042	.031	.483
GEPT	2	.266(a)	.071	.060	.475

H3a: There was statistical significance with satisfaction (interaction, structure, and support) and personality traits with *conscientiousness*,  $p = .032 < .05$ .

Table 4  
ANOVA of Satisfaction and Personality Traits with Conscientiousness

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.221	3	1.407	3.076	.032 <sup>a</sup>
	Residual	39.335	86	.457		
	Total	43.556	89			

a. Predictors: (Constant), SupportAVG, InteractionAVG, StructureAVG

b. Dependent Variable: ConscientiousnessAVG

H3b: There was statistical significance with satisfaction (interaction, structure, support) and personality traits with *extraversion*,  $p = .004 < .05$ .

Table 5  
ANOVA of Satisfaction and Personality Traits with Extraversion

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.253	3	1.751	4.720	.004 <sup>a</sup>
	Residual	31.903	86	.371		
	Total	37.156	89			

a. Predictors: (Constant), SupportAVG, InteractionAVG, StructureAVG

b. Dependent Variable: ExtraversionAVG

H3c: There was statistical significance with satisfaction (interaction, structure, support) and personality traits with *agreeableness*,  $p = .006 < .05$ .

Table 6  
ANOVA of Satisfaction and Personality Traits with Agreeableness

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.475	3	1.158	4.465	.006 <sup>a</sup>
	Residual	22.313	86	.259		
	Total	25.789	89			

a. Predictors: (Constant), SupportAVG, InteractionAVG, StructureAVG

b. Dependent Variable: AgreeablenessAVG

H3d: There was no statistical significance with satisfaction (interaction, structure, and support) and personality traits with *openness*,  $p = .117 > .05$ .

Table 7

*ANOVA of Satisfaction and Personality Traits with Openness*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.420	3	.473	2.017	.117 <sup>a</sup>
	Residual	20.180	86	.235		
	Total	21.600	89			

a. Predictors: (Constant), SupportAVG, InteractionAVG, StructureAVG

b. Dependent Variable: OpennessAVG

H3e: There was no statistical significance with satisfaction (interaction, structure, and support) and personality traits with *neuroticism*,  $p = .352 > .05$

Table 8

*ANOVA of Satisfaction and Personality Traits with Neuroticism*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.955	3	1.318	1.104	.352 <sup>a</sup>
	Residual	102.668	86	1.194		
	Total	106.622	89			

a. Predictors: (Constant), SupportAVG, InteractionAVG, StructureAVG

b. Dependent Variable: NeuroticismAVG

H4: There was no statistical difference in foreign language classroom anxiety, and classroom structures for satisfaction and personality traits.

Table 9

*MANOVA of Foreign Language Classroom Anxiety, and Classroom Structures for Satisfaction and Personality Traits*

Variables	df	SSCP	Value	F Value Personality Trait	F Value Satisfaction	Sig.
FLCAS	2	[.019 .003] [.003 .2.865]	.876			.962 .008
Classroom Structure	3	[.574 1.270 ] [1.270 3.202]	.873			.512 .103
FLCAS* Classroom Structure	2	[.274 .083] [.083 1.957]	.897	.553**	3.490***	.577 .035
Error	82	[20.302 7.148] [7.148 22.991]				

**Reliability Analysis**

To estimate the reliability of foreign language classroom anxiety, classroom structures, satisfaction, and personality traits, Cronbach's alphas and item analyses were conducted on all variables: alphas=.613.

Table 10

*Cronbach's Alpha Coefficients of Foreign Language Classroom Anxiety, Classroom Structures, Satisfaction, and Personality Traits*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items		N of Items
.613	.618		11

### Conclusion

Personality is a critical psychological mechanism leading a person's behavior to satisfaction (Kwon & Song, 2011). Personality was examined to understand students' foreign language anxiety, classroom structures, and satisfaction from this study.

This research shows that the personality traits *conscientiousness*, *extraversion*, and *agreeableness* influence student satisfaction. However, this study uncovered the personality traits *openness* and *neuroticism*. Furthermore, the TOEIC and GEPT do not influence personality traits, and the GEPT has more statistical significance than the TOEIC for student personality traits. The finding does not help statistical difference in foreign language classroom anxiety and classroom structures for satisfaction and personality traits.

### Practical Implications

The Taiwan MOE is focused on improving English ability. The TOEIC and GEPT are two tests of language learning effectiveness to present and prove Taiwanese English ability in society. The research findings are important to educational organizations, the Taiwanese government, companies, TOEIC and GEPT test-takers, and researchers. The results may influence educational organizations, government, and company decisions and strategies. Other researchers can benefit by duplicating or modifying this study. The Taiwanese government or companies could support more funding to all Taiwanese schools to enhance the quality of the TOEIC and GEPT.

### Limitations

This study has limitations. First, the number of participants was too small to compare with the 5 million test takers of the TOEIC and GEPT per year worldwide. Furthermore, the respondents might also be biased to answer the questions because of the small number of participants in the colleges. Finally, the estimated time for completing this survey was ten minutes, and the participants may have been impatient and may not have answered the questions carefully and accurately.

### Recommendations for Future Study

Future studies might adopt a qualitative design by interviewing participants and eliciting respondents' opinions. Future studies should explore more factors and include other cultures or countries to explore the difference between TOEIC and GEPT for personality traits. Future studies should also use Multidimensional Scaling (MDS) and AMOS 18.0 to facilitate data reading and to test more dependent variables. The accessible population should also be enlarged to strengthen the generalizability of the study.

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