

A Study of the Relationship Between the Big Five Personality Traits and Second Language (L2) Learning

Sunhee Choi

Department of English Education, Jeonju University, 55069 Jeonju, Korea

Abstract: The purpose of this study is to investigate the relationship between personality traits and L2 learning. Numerous studies have been conducted on this topic but the results were inconclusive partly because many of them failed to use a scientific model of personality. The present study used the Big Five Model of personality traits which has been long established to represent the most basic and independent personality traits. About 176 Korean college students learning English as a Foreign Language (EFL) completed the 44 item Big Five Inventory (BFI) and reported their preferred English skills along with English proficiency test scores. The relationship between the participant's personality traits and L2 learning variables were examined using one-way ANOVA and correlation analysis. The results show that, the mean scores of the five personality factors were around 3.0, a medium level. Furthermore, the personality traits showed no statistically significant correlation with their English proficiency test scores. In previous studies, personality traits were found to affect L2 learning either directly or indirectly through other mediating variables such as motivation and attitudes towards L2 learning and the target culture. The failure to find such meaningful relationships might have been caused by the fact that the sample size of the present study was not big enough and the measure of the participant's English proficiency was not ideal. Nevertheless, the use of the Big Five Model of personality traits have a great potential to further the field of individual differences in L2 learning with its theoretical and explanatory strength. Further research with bigger samples and sound measures of English proficiency is warranted.

Key words: Individual differences, learning English as a Foreign language, second language learning, the Big Five inventory, the Big Five Model of personality traits, Korea

INTRODUCTION

Individual differences have been the focus of second Language (L2) acquisition research for the last three decades as people wonder why different individuals achieve different levels of L2 proficiency even when they are taught by the same instructor under the exact same learning environment. A multitude of individual difference variables including various cognitive, behavioral and affective factors are believed to have a positive or negative relationship with second language learning (Dornyei, 2005). Accordingly, extensive research has been conducted to investigate how such individual difference variables affect L2 learning success or lack thereof. Among the many individual differences, learner motivation, anxiety, L2 aptitude, intelligence, learning styles and strategies and Willingness to Communicate (WTC) have received far more attention from researchers than any other factors. Yet, when asked about the importance of individual differences in learning an L2, both teachers and learners rate personality factors higher than any other factors (Griffiths, 1991).

Personality represents a set of attributes that define a unique individual (Raad, 2000) and is generally defined

as one's "psychological qualities that contribute to an individual's enduring and distinctive patterns of feeling, thinking and behaving" (Cervone and Pervin, 2010). As the term 'enduring' suggests, the key aspect of personality is consistency meaning that individuals display consistency to some extent regarding how they function under different situations. Personality traits also differentiate people from one another which is another key point denoted by the term 'distinctive'. Temperament and mood are often used interchangeably with personality. However, they are different from personality in that the former is biologically rooted emotional and behavioral characteristics while the latter refers to a changing state of mind (Strelau, 1998).

Personality traits have been approached from various theoretical perspectives that help us better understand the construct of personality. Of those perspectives, however, the Big Five framework of personality traits has been established as one of the most sound and objective models for studying the relationship between personality traits and academic variables. The Big Five Model distinguishes five different components or factors of one's personality which include Openness (O), Conscientiousness (C), Extroversion (E), Agreeableness

(A) and Neuroticism (N). These Big Five traits are somewhat more memorable due to the fact that the first letters of the Big Five traits form the word ‘OCEAN’ (John, 1990). Here, ‘Big’ means that there exist a number of more specific traits and each factor can be better understood by these specific personality facets or trait descriptors as shown in Table 1 (John and Srivastava, 1999).

Several studies have shown that personality traits affect L2 learning. For instance, people who score high on extroversion are more eager to engage in social interaction and thus display less anxiety (MacIntyre and Noels, 1996). Helpful and gullible people with high level of agreeableness also show willingness to interact with others which increase their chance to improve communicative competence (MacIntyre and Charos, 1996). In contrast, people with high neuroticism are expected to have a higher level of foreign language anxiety (Dewaele, 2013) which is believed to have negative effect on L2 learning. Conscientious L2 learners who are organized and self-disciplined tend to be more task-oriented and learn more systematically (MacIntyre and Charos, 1996). In addition, Verhoeven and Vermeer (2002) studied correlations between the three different components of communicative competence (i.e., organizational competence, pragmatic competence and strategic competence) and the personality traits. They

found that openness to experience was positively correlated to all three competencies while extroversion was related to strategic competence and conscientiousness had a relationship with organizational competence.

Personality is usually measured using self-report questionnaires and a number of measurement instruments have been in fact used in second language acquisition research. However, many studies have resulted in somewhat inconsistent and inconclusive findings. Part of the reason for this unfortunate situation is that different instruments were used to measure the same personality constructs (Ellis, 2008). This may also have been caused by the failure to employ a clear and robust theoretical framework for explaining which personality variables are related to which aspects of L2 achievement. To counteract the problem, the present study employed the Big Five Model of personality traits, a dominant theory of personality traits in psychology in order to measure L2 learner’s personality traits. Using the model, the study first measures Korean EFL (English as a Foreign Language) learner’s personality traits and then investigates the relationship between their personality traits and English language learning. In particular, the focus is placed on the correlation between the personality traits and L2 learning achievement of Korean EFL learners, a rarely studied topic in the field of individual differences in L2 learning (Ellis, 2008).

Table 1: The Big Five factors and specific personality facets

Big Five factors	Facets or trait descriptors
Openness vs. closedness to experience	Ideas (curious)
	Fantasy (imaginative)
	Aesthetics (artistic)
	Actions (wide interests)
	Feelings (excitable)
Conscientiousness vs. lack of direction	Values (unconventional)
	Competence (efficient)
	Order (organized)
	Dutifulness (not careless)
	Achievement striving (thorough)
Extroversion vs. introversion	Self-discipline (not lazy)
	Deliberation (not impulsive)
	Gregariousness (sociable)
	Assertiveness (forceful)
	Activity (energetic)
Agreeableness vs. antagonism	Excitement-seeking (adventurous)
	Positive emotions (enthusiastic)
	Warmth (outgoing)
	Trust (forgiving)
	Straightforwardness (not demanding)
Neuroticism vs. emotional stability	Altruism (warm)
	Compliance (not stubborn)
	Modesty (not show-off)
	Tender-mindedness (sympathetic)
	Anxiety (tense)
	Angry hostility (irritable)
	Depression (not contented)
	Self-consciousness (shy)
	Impulsiveness (moody)
	Vulnerability (not self-confident)

MATERIALS AND METHODS

Participants: About 190 college EFL students participated in the current study. They were enrolled in three different universities located in Jeonbuk province in Korea at the time of the study and recruited through the help of the instructors who taught them in various general English courses. However, 14 students did not answer some of the questions in the questionnaire explained in the next study and hence, only 176 students were included in the sample. The final sample consisted of 98 female students (55.7%) and 78 male students (44.3%). The participants were from various fields of studies as displayed in Table 2 while students majoring in English education made up the biggest percentage 60.8%. They reported that they have been studying English for about 12 years on average.

Table 2: Participant’s majors

Majors	Frequency	Percentage	Cumulative (%)
English Education	107	60.8	60.8
Humanism and Social Science	13	7.4	68.2
Science and Engineering	46	26.1	94.3
Arts and Sports	10	5.7	100.0
Total	176	100.0	

Measures and procedures: To measure the participant’s personality traits, a paper-pencil version of the Big Five Inventory (BFI) was employed. A copy of the BFI is available in the public domain (the Berkeley Personality Lab. website) with scoring instructions and permission is not required to use it for non-commercial research purposes. The inventory is a 44 item self-report measure which asks respondents to indicate the extent of their agreement with each statement on a 5-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). The 44 statements included in the scale were translated by the researcher from English to Korean in a verbatim fashion first and then, modified to reflect the cultural appropriateness of item content in the Korean culture and its social norms (Hambleton, 2001). Table 3 presents the sample questions for each domain of the Big Five personality traits included in the BFI. The BFI is designed to assess the five big personality dimensions of OCEAN and an impressive amount of cross-cultural empirical data has proven that the measure has good validity and reliability (Schmitt *et al.*, 2007). In the present study, the Cronbach alpha values for each sub-scale’s internal consistency are as follows: 0.77 for both openness and conscientiousness, 0.86 for extroversion, 0.67 for agreeableness and 0.64 for neuroticism. Participants were also asked to report their preferred English skills along with authorized English proficiency test scores such as TOEIC (Test of English for International Communication), TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System) in order to measure their L2

learning achievement. However, all those who reported their proficiency test scores provided the TOEIC scores only.

Data analysis: First of all, descriptive statistics including frequencies, percentages and means were undertaken to study the participant’s personality traits, preferred English skills and English proficiency test scores using the SPSS 18 statistical package. In addition, one-way ANOVA and Pearson product-moment correlational analysis were conducted at the 0.05 level of significance to examine the relation between the participant’s personality traits and their English learning.

RESULTS AND DISCUSSION

Simple statistical analysis was performed to find out the participant’s preferred English skills and the levels of their Big Five personality traits. As Table 4 illustrate, 31.8 and 37.5% of the participants selected speaking and reading, respectively as their favorite English skills while only 12% of the students chose writing as their preferred skill. The results probably reflect the current English teaching practice easily found in Korean high school and college EFL classes where students are not usually required to write in English. One thing interesting about the results is that the participants still like speaking which is also not the focus of many English classes. This may imply that many Korean students are passionate about communicating with people from different cultures and eager to learn to speak English.

With regard to the Big Five personality traits, it was found that the participants scored highest on agreeableness (M = 3.55, SD = 0.44) followed by conscientiousness (M = 3.29, SD = 0.52), openness (M = 3.23, SD = 0.52), extroversion (M = 3.19, SD = 0.67) and neuroticism (M = 3.03, SD = 0.59) as shown in Table 5. These findings suggest that Korean college EFL students are more cooperative, trusting and helpful and at

Table 3: Sample questions of the Big Five inventory

Five Dimensions	Questions
Openness vs. closedness to experience	I am original, come up with new ideas
	I am curious about many different things
	I prefer work that is routine (R)*
Conscientiousness vs. lack of direction	I like to reflect, play with ideas
	I do a thorough job
	I can be somewhat careless (R)*
Extroversion vs. introversion	I tend to be disorganized (R)*
	I persevere until the task is finished
	I am talkative
Agreeableness vs. antagonism	I am reserved (R)*
	I generate a lot of enthusiasm
	I am sometimes shy, inhibited (R)*
Neuroticism vs. emotional stability	I tend to find fault with others (R)*
	I am helpful and unselfish with others
	I can be cold and aloof (R)*
	I am considerate and kind to almost everyone
	I am depressed, blue
	I am relaxed, handle stress well (R)*
	I am emotionally stable not easily upset (R)*
	I can be moody

*The statements with ‘R’ were Reverse-coded before performing the statistical analyses

Table 4: Descriptive statistics for participant’s preferred English skills

Majors	Frequency	Percentage	Cumulative (%)
Speaking	56	31.80	31.8
Listening	42	23.90	55.7
Reading	66	37.50	93.2
Writing	12	6.80	100.0
Total	176	100.00	

Table 5: Descriptive statistics for participant’s Big Five personality traits

Traits	N	M	SD
Openness	176	3.23	0.52
Conscientiousness	176	3.29	0.52
Extroversion	176	3.19	0.67
Agreeableness	176	3.55	0.44
Neuroticism	176	3.03	0.59

Table 6: Group means by participant's preferred English skill

Traits/Preferred skills groups	Groups							
	Speaking (N = 56)		Listening (N = 42)		Reading (N = 66)		Writing (N = 12)	
	M	SD	M	SD	M	SD	M	SD
Openness	3.39	0.52	3.14	0.47	3.18	0.48	3.02	0.73
Conscientiousness	3.30	0.53	3.16	0.47	3.36	0.54	3.31	0.54
Extroversion	3.25	0.63	3.23	0.61	3.10	0.73	3.36	0.73
Agreeableness	3.62	0.49	3.52	0.42	3.48	0.38	3.71	0.46
Neuroticism	2.97	0.59	3.27	0.55	2.96	0.53	2.85	0.81

the same time they are quite emotionally stable and less anxious. On one hand, the results look promising, since, people who are conscientious, extrovert and open to new experiences are generally better at learning an L2 as discussed earlier in the introduction. Nevertheless, the means of all five traits are centered around 3.0 meaning that the participants of the present study do not fall on either end of each trait continuum. In other words, the participants do not have strong tendency in any of the traits. This is probably the reason for the lack of a strong relationship between personality traits and English learning which will be discussed later.

In order to find out whether the participant's preferred English skills were related to their personality traits, the participants were first divided into four groups according to their preferred skills. Then, the mean for each personality factor was calculated. As Table 6 demonstrates, the participants who prefer speaking to other skills tend to be more open to new experiences (M = 3.39) while those who prefer listening show more anxiety (M = 3.27). It was also found that people who are less extroverted prefer receptive skills such as listening and reading for which they do not have to interact with other people.

The results of one-way ANOVA also, determined that there were statistically significant difference among the groups with regard to openness (F = 3.04, p = 0.030) and neuroticism (F = 3.24, p = 0.024). However, no statistically meaningful differences were found among the groups when it comes to the other personality traits. The results imply that when people are eager to experience new things, they are more likely to communicate with other people and thus improve their speaking skills which corroborate the existing research (Oz, 2014). On the contrary, those who are shy and self-conscious tend to prefer receptive skills such as listening that do not require direct engagement with others.

Finally, correlation analysis was undertaken in an attempt to understand the relationship between the personality traits and English learning achievement. Unfortunately, however, not every participant reported their English proficiency test scores and their data were

Table 7: Correlations between the big five personality traits and L2 learning achievement

Variables	1	2	3	4	5	6
TOEIC scores	1.000					
Openness	0.032	1.000				
Conscientiousness	0.183	0.048	1.000			
Extroversion	0.048	0.397**	0.329**	1.000		
Agreeableness	0.184	-0.010	0.161	0.178	1.000	
Neuroticism	-0.227	-0.083	-0.387**	-0.160	-0.068	1

dropped from the analysis. Out of 176, only 64 participants reported their TOEIC scores (M = 742.23, SD = 196.24, min. = 130, max. = 950) which were fed into the analysis. The results of Pearson correlation analysis revealed that the participant's TOEIC scores were not correlated significantly with the personality traits as seen in Table 7. These somewhat disappointing results may be due to the fact that there were not enough samples given that correlation coefficients are affected by the sample size to a great extent. Or it could be possible that there is in fact no significant relationship between personality traits and TOEIC scores. Currently, the TOEIC test consists of only listening and reading questions presented in fixed formats which does not necessarily require higher levels of openness and extroversion, two most important traits for oral communication. Furthermore, the TOEIC test scores have a bit higher levels of correlation with conscientiousness (r = 0.183) and agreeableness (r = 0.184) than the other traits. This might reflect the fact the in order to get higher TOEIC test scores, one needs intensive practice and use of test-taking skills which involves carefulness, thoroughness and organization.

CONCLUSION

The present study aimed at examining relationship between personality traits and English language learning. To achieve this goal, 176 Korean college EFL learners were recruited to participate in the study. They answered a 44 item personality inventory (the BFI) and several questions regarding their English learning experiences. It was found that the mean scores of the personality factors were centered on the medium level which indicates that the participants did not show strong tendencies in any of the Big Five personality traits. The results also revealed that people with higher levels of agreeableness and openness towards new experiences prefer speaking skills whereas those with higher levels of anxiety prefer listening skills. Furthermore, the personality traits had no statistically significant correlation with their TOEIC scores. In previous studies, personality traits have been shown to affect L2 learning either directly or indirectly through other mediating variables such as motivation and

attitudes towards L2 learning and target culture. The results might have been caused by several factors including the small sample size and the inadequate measure of the participant's English proficiency. Nevertheless, the present study warrants some credit for its attempt to apply the Big Five framework of personality, a widely accepted model for studying the relationship between personality traits and academic variables.

SUGGESTION

Further research should be conducted with bigger sample sizes and better measures of participant's English proficiency.

ACKNOWLEDGEMENT

This research was funded by Jeonju University under the faculty research support program.

REFERENCES

- Cervone, D. and L.A. Pervin, 2010. *Personality: Theory and Research*. 11th Edn., John Wiley & Sons, Hoboken, New Jersey, USA.
- Dewaele, J.M., 2013. The link between foreign language classroom anxiety and psychoticism, extraversion and neuroticism among adult Bi-and multilinguals. *Mod. Lang. J.*, 97: 670-684.
- Dornyei, Z., 2005. *The Psychology of the Language Learner: Individual Differences in Second Language Learning*. Lawrence Erlbaum Associates, New Jersey, USA., ISBN:9780805847291, Pages: 270.
- Ellis, R., 2008. *The Study of Second Language Acquisition*. 2nd Edn., Oxford University Press, Oxford, UK., ISBN-13:9780194422574, Pages: 1170.
- Griffiths, R., 1991. Personality and Second Language Learning: Theory, Research and Practice. In: *Language Acquisition and the Second-Foreign Language Classroom*, Sadtano, E. (Ed.). SEAMEO Publisher, Singapore, pp: 1-35.
- Hambleton, R.K., 2001. The next generation of the ITC test translation and adaptation guidelines. *Eur. J. Psychol. Assess.*, 17: 164-172.
- John, O.P. and S. Srivastava, 1999. The Big-Five Trait Taxonomy: History, Measurement and Theoretical Perspectives. In: *Handbook of Personality: Theory and Research*, Pervin, L.A. and O.P. John (Eds.). Guilford Press, New York, USA., pp: 102-138.
- John, O.P., 1990. The Big Five Factor Taxonomy: Dimensions of Personality in the Natural Language and in Questionnaires. In: *Handbook of Personality: Theory and Research*, Pervin, L.A. (Ed.). Guilford Press, New York, USA., pp: 66-100.
- MacIntyre, P.D. and C. Charos, 1996. Personality, attitudes and affect as predictors of second language communication. *J. Lang. Social Psychol.*, 15: 3-26.
- MacIntyre, P.D. and K.A. Noels, 1996. Using psychosocial variables to predict the use of language learning strategies. *Foreign Lang. Ann.*, 29: 373-386.
- Oz, H., 2014. Big Five personality traits and willingness to communicate among foreign language learners in Turkey. *Social Behav. Pers. Intl. J.*, 42: 1473-1482.
- Raad, B.D., 2000. *Differential Psychology*. In: *Encyclopedia of Psychology*, Kazdin, E.A. (Ed.). American Psychological Association Publisher, London, England, UK., ISBN:9781557981875, pp: 168-184.
- Schmitt, D.P., J. Allik, R.R. McCrae and V.B. Martinez, 2007. The geographic distribution of Big Five personality traits: Patterns and profiles of human self-description across 56 nations. *J. Cross Cult. Psychol.*, 38: 173-212.
- Strelau, J., 1998. *Temperament: A Psychological Perspective*. Plenum Press, New York, USA.
- Verhoeven, L. and A. Vermeer, 2002. Communicative competence and personality dimensions in first and second language learners. *Appl. Psycholinguistics*, 23: 361-374.