

# Personality Type and Performance on Listening Tests: A Study of Correlation between Personality Traits and Performance on “Listening for Gist” and “Minimal Pairs”

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**Abstract** This study aimed to investigate the relationship between personality traits and performance on two types of listening test. Participants of the study were 60 advanced L2 learners in two branches of ILI in Tehran. Myers-Briggs personality questionnaire, a test of listening for gist, and a test of minimal pairs were used. Pearson coefficients were calculated to find any significant correlation between personality traits and participants' scores on these two listening tests. The obtained results indicated that degree of thinking / feeling is significantly correlated with performance on both listening tests. Also, degree of judging / perceiving had a relatively significant correlation with performance on minimal pairs test. Being good at analytical and objective mode of processing is suggested to be the key feature that might help thinking people to perform successfully in listening for gist test. On the other hand, degree of thinking had a significant negative correlation with performance on minimal pairs test. Finally, degree of judging / perceiving had a significant correlation with participants' scores on minimal pairs test. Being flexible, adaptive, and receptive to open options are suggested to be the main characteristics that help perceiving people to perform successfully in minimal pairs test.

**Keywords** Personality traits, Myers-Briggs questionnaire, Listening test

## 1. Introduction

The relationship between personality and performance on various linguistic and cognitive tasks has been the subject of a large body of research in recent years. Some of these studies have suggested that certain personality groups might perform relatively well in particular activities. Any cognitive or linguistic activity involves a set of resources and influential factors. The manner in which elements interact with each other can be extremely complex. The first thing that must be done is to identify all resources and factors that are involved in an activity. Then, their roles must be closely examined to find which ones play more significant roles in a given activity.

The goal of this study was to examine any possible relationship between personality types and performance of Iranian L2 learners on two types of listening task. The first test was listening for gist, in which the listener had to try to extract the general idea of a listening clip even if s/he could not understand every phrase or sentence. The second test was listening to minimal pairs, in which the listener had to distinguish among words that were different in only one

phoneme. The main subject with which this study dealt was the existence of any significant correlation between personality traits and degree of success on these two types of listening test. If such a relationship exists, we have to try to find an explanation for it. In other words, we have to explain which features are facilitative and why they are facilitative. At this stage, the only thing about which we can be sure is that the types of facilitative features are highly reliant on the nature of the test and the cognitive processes involved in it.

A personality test is a questionnaire whose aim is to measure people's personality traits and their psychological makeup. Throughout the past decades, various personality questionnaires have been employed by researchers in psychology and language studies. The first personality questionnaires were developed in 1920s (Kaplan & Saccuzzo, 2008). Among a number of questionnaires employed by researchers, Myers-Briggs Type Indicator (Myers, 1962) has been one of the mostly-used tests. This questionnaire was inspired by Jung's (1923) ideas about personality. Based on this questionnaire, people's personalities are grouped into four pairs of opposite types: extroversion / introversion, sensing / intuition, thinking / feeling, and judging / perceiving.

The existence of possible links between personality traits and degree of success in L2 learning has been examined in a number of studies (for example, Carrell, Prince, & Astika,

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1996; Ehrman & Oxford, 1995, 1989; Ehrman, 1990, 1989; Moody, 1988; Oxford & Ehrman, 1988). Ehrman and Oxford (1990) found that extrovert L2 learners are more successful in employing social strategies in the process of language learning. Results of another study conducted by Wakamoto (2000) indicated that sensing learners tend to use memory strategies; on the other hand, intuitive learners displayed a higher tendency to use compensation strategies. In a study conducted on Iranian L2 learners, Yazdani Fazlabadi and Khatin- Zadeh (2016) found that sensing and thinking learners were relatively more successful in cloze passage tasks.

Using Myers-Briggs personality questionnaire and two listening tests, this study tried to answer the following questions:

1. Is there any relationship between personality traits and degree of success on listening tests?
2. If the answer to the above question is “Yes”, how can the superior performance of a particular personality type in a listening task be explained?

## 2. Method

### 2.1. Participants

Participants of this study were selected from L2 learners in two branches of ILI in Tehran. They consisted of 60 advanced learners, 36 of whom were females and 24 were males. They were between 16 and 22 years old.

### 2.2. Instrumentation

The first instrument used in this study was Myers-Briggs Personality Trait Questionnaire. The aim was to obtain degrees of extroversion / introversion, sensing / intuition, thinking / feeling, and judging / perceiving of the participants on a range between 0 and 100. In addition to this questionnaire, two types of listening tasks were used: listening for gist and minimal pairs. Each listening test consisted of 20 items. These tests were selected from samples of TOEFL test and [www.manythings.org](http://www.manythings.org).

### 2.3. Procedure

Myers-Briggs questionnaire and listening tests were given to the participants in two separate days. Before answering questions, participants were provided with clear instructions to make sure that they knew how to answer test items. Listening tests were administered in a 60-minute session.

### 2.4. Data Analysis

The data collected by Myers-Briggs questionnaire were analyzed by an online software ([www.humanmetrics.com](http://www.humanmetrics.com)). Degrees of personality traits were obtained for all

participants on a range between 0 and 100. Each pair of personality traits consisted of two opposite traits. For example, an extroversion degree of 72 meant an introversion degree of 28 (the sum of them is 100 for every participant). In the next stage, participants' scores on two listening tests were obtained. Five scores were assigned to each correct answer. Therefore, the minimum and maximum possible scores were 0 and 100.

The Pearson product moment correlation formula was used to calculate degree of correlation between each personality trait and participants' scores on both listening tests. The important point in this analysis was that a significant positive correlation between a personality trait and scores of listening test meant a significant negative correlation between the opposite trait and scores on the test. For example, when correlation between thinking and listening test was positively significant (such as 0.71), the correlation between feeling and the test was negatively significant (-0.72). If the correlation was non-significant for a given trait, it was also non-significant for its opposite trait. For example, when degree of correlation between extroversion and listening test was 0.096, degree of correlation between introversion and listening test was -0.097. Both of these values are considered to be non-significant.

## 3. Results

Pearson product moment correlation formula and SPSS were used to calculate degree of correlation between participants' scores on listening test and their degree of personality traits. The results have been presented in Table 1 and Table 2.

Results presented in Table 1 show that thinking / feeling has a significant correlation with participants' scores on listening for gist test. While degree of thinking is positively correlated with participants' scores, degree of feeling is negatively correlated with scores. In other words, as degree of thinking rises among participants, they perform better on listening for gist test. On the other hand, as degree of feeling rises among them, their performance on this test becomes poorer and poorer. Also, results presented in Table 2 indicate that thinking / feeling and judging / perceiving have a relatively significant correlation with participants' performance on minimal pairs test. While degrees of feeling and perceiving have a significant positive correlation with participants' scores, degrees of thinking and judging have a significant negative correlation with scores. As degrees of feeling and perceiving rises among participants, they perform better on minimal pairs test. In contrast, as degrees of thinking and judging go up, their performance on this test becomes poorer.

**Table 1.** Coefficient of Correlation between Scores of Listening for Gist Test & Degrees of Personality Traits

	Extroversion	Introversion	Sense	Intuition	Thinking	Feeling	Judging	Perceiving
Participants' scores	0.0148	-0.0162	0.0076	-0.0145	0.7124	-0.7238	0.2275	-0.2356

**Table 2.** Coefficient of Correlation between Scores of Minimal Pairs Test & Degrees of Personality Traits

	Extroversion	Introversion	Sense	Intuition	Thinking	Feeling	Judging	Perceiving
Participants' scores	-0.0963	0.0974	0.1746	-0.1856	-0.6655	0.6524	-0.6431	0.6356

## 4. Discussion

As was mentioned, the obtained results are interesting in three cases. The first point for which we have to find an explanation is the correlation between thinking / feeling and participants' performance on listening for gist test.

### 4.1. Degree of Thinking / Feeling and Performance on Listening for Gist Test

The key to success in listening for gist task is to ignore the ambiguous parts and to extract the main idea by juxtaposing those parts which are understood. In other words, the non-understandable parts must be pushed out, and the understood parts must be kept in for further processing. Therefore, the first step is a suppressive-oriented mode of processing in which some parts are sent out. The next step is a creative process in which the main idea must be derived from those parts which have been understood. If the listener is going to understand the whole idea of a listening clip, s/he has to bridge the gaps (non-understood phrases and sentences) and create the whole out of some disconnected parts. According to Brown (2007, p. 177), thinking people are analytical and objective. They are good at employing criteria and categories. These are the key characteristics that might help thinking people to fill the gaps among understood parts by making inferences. In other words, what makes them successful is their high ability in building the whole text out of some scattered parts by removing the non-useful parts, making inferences, bridging the gaps, and extracting the whole idea. Another critical factor is background knowledge. Having background knowledge about the content of listening can be extremely useful to put the pieces together and to derive the general meaning of a listening clip.

### 4.2. Degree of Thinking / Feeling and Performance on Minimal Pairs Test

Minimal pairs is a task in which the participants have to be very sensitive to minor differences between pronunciation of words and to recognize such differences in a very small portion of a second. Compared to listening for gist task, this task involves less degree of cognitive and inferential processing. The participant does not need to make deductions and to conduct a creative processing. S/he only has to be sensitive to minor differences in sound production. According to Brown (2007, P. 177), feeling people are subjective and less dependent on an analytical and objective

mode of processing. Since being analytical, objective, and deductive do not play a salient role in minimal pairs tasks, it might be suggested that thinking people are not in a strong position to perform successfully in such tasks. On the other hand, feeling people, who are on the opposite side, are better equipped to perform well in this type of activities. However, one important point that must not be ignored is the role of psychological factors. Since minimal pairs items must be responded to in a very short period of time, stress and anxiety during these tasks can have an extremely damaging impact on the performance of participants. In other words, success in such tasks can be the result of interaction among a set of various factors.

### 4.3. Degree of Judging / Perceiving and Performance on Minimal Pairs Test

As can be seen in Table 2, comparing to judging participants, perceiving participants were relatively more successful in minimal pairs test. These results indicate that as participants become more perceiving, they perform better in minimal pairs test. In contrast, as they become more judging, their performance becomes weaker. Brown (2007, p. 177) says that perceiving people are flexible, adaptive, and receptive to open options. These characteristics might put perceiving people in a better position to perform well in minimal pairs tasks in which a relatively small degree of objectivity, inference, and fixed decision-making is involved. On the opposite side of the range, judging people are fixed and tend to plan ahead. Such features might not be positive for people doing minimal pairs tasks. In this case, degree of correlation is less significant than the above-discussed cases. Therefore, similar to the first two significant correlations, we have to be cautious in interpreting the results and not ignore the impact of other possible factors.

## 5. Conclusions

Based on the results obtained in this study, it was concluded that degrees of thinking / feeling and judging / perceiving might have a significant correlation with performance on two types of listening tests. Among the four pairs of personality traits, thinking / feeling was significantly correlated with performance on both listening for gist test and minimal pairs test. While thinking people were successful in the first listening test, their performance was

weak on the second listening test. Therefore, it might be proposed that these two listening tests involve two different mode of cognitive processing. Also, degree of judging / perceiving had a relatively significant correlation with performance on minimal pairs test. However, similar to any other cognitive activity, listening task might involve a wide range of interacting factors. Depending on the type of resources that need to be employed, certain group of people might be more successful in performing a given activity. How influential factors interact with each other in a certain activity can be the subject of future studies. Finally, based on the results of this study, it is recommended that personality types of second language learners be taken into account in foreign language classrooms. This can help language teachers to select the most effective activities for various personality groups. If a particular group of language learners is weak in a particular activity, specific tasks can be used for that group.

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