

In The Name Of God
The Merciful,
The Compassionate



**University of Guilan
International Campus**

**Thesis Submitted for the Award of Master of Arts in
Teaching English as a Foreign Language (TEFL)**

**The Relationship between Intelligence and Receptive
Language Skills among EFL Learners**

By

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*To My
Parents*

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ABSTRACT

The present study sought to investigate the relationship between intelligence and foreign language receptive skills among upper-intermediate EFL learners with a consideration of the role gender and age. The study was a quantitative correlational one. The participants were 102 Iranian male and female EFL learners from two branches of Shokouh English Institute and Islamic Azad university of Ghaemshahr. Three different instruments were used to collect the relevant data: 1) Oxford Placement Test (2011) to determine participating EFL learners' proficiency level, 2) Raven Progressive Matrices (RPM) to determine the participants' IQ, and 3) a collection of reading and listening comprehension tests of IELTS to assess the participants' reading and listening comprehension. Pearson coefficient correlation and the Fisher r-to-z transformation were used to analyze the obtained data. The results suggested significant relationship between intelligence and both reading and listening comprehension. However, the difference between male and female participants regarding the relationship between intelligence and receptive language skills was not found to be significant. In addition, this correlation was stronger for the participants who were between 18 to 22 years old than 23 to 27 or 28 to 32 years of age. The difference between age groups was found to be statistically significant. The major implication of the study is that intelligence as an important individual variable should receive further attention in language teaching programs.

Keywords: Intelligence; receptive language skills; upper-intermediate level.

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List of Abbreviations

- CPM: Raven Colored Progressive Matrices
- EFL: English as a Foreign Language
- ESL: English as a Second Language
- GLL: Good Language Learner
- IDs: Individual Differences
- IELTS: International English Language Testing System
- IQ: Intelligent Quotient
- L2: Second Language
- MLAT: Modern Language Aptitude Test
- PPVT: Peabody Picture Vocabulary Test
- RPM: Raven's Process Matrices
- SEI: Shokooh English Institute
- SLA: Second Language Acquisition
- TOEFL: Test of English as Foreign Language
- WISC: Wechsler Intelligence Scale for Children

Chapter One

Introduction

1.1. Preview

Successful second language acquisition (SLA), an obvious goal of anyone in the field of language learning, is a great concern to applied linguists. In fact, in a class with similar facilities, the students progress differently. While some students learn faster, others might face hardship during learning and sometimes some of them fail to succeed at all. There are neurolinguistic, cognitive, and social factors which influence learning greatly; however, individual factors also play an important role in successful SLA. Second language (L2) learning “demands a level of personal engagement unlike ... any other subject-matters studied in academic settings” (Horwitz, 1995, p. 573). Brown (2007) found self-esteem, inhibition, risk-taking, anxiety, empathy, and motivation as the main individual factors which influence successful SLA.

Intelligence is one of the individual factors which should be taken into consideration. According to Teepen (2005), there is a strong relationship between intelligence and SLA. He stated that “higher IQ scores correlated with better performance on academic aspects of second language acquisition” (p. 8). McLaughlin (1987a) also believed in intelligence as one of the most important factors in SLA.

While the relationship between intelligence and second language learning had been confirmed by numerous researchers (for example, Teepen, 2005; Chowdhury, 2010), Chomsky (1981) did not highlighted the role of individual differences within a speech community, and Teepen (2005) had the same idea about the effect of intelligence on oral communication. However, the effect of intelligence on reading comprehension has not been empirically investigated sufficiently. Several studies (Barnes, 1955; Birch & Belmont, 1965; Chall, 1967; Samuels & Dahl, 1975; Singer, 1977; White & Jacob, 1979; cited in Stanovich, Cunningham, & Feeman, 1984) have

been carried out on reading ability and intelligence tests. Nevertheless, none of these studies worked on second language reading comprehension in particular.

Comprehension and in particular reading and listening comprehension are two key elements of successful SLA. Listening was long considered as a Cinderella skill which has been overlooked by its elder sister, speaking. However, according to Nunan (1997), in the 1960s the focus on oral language skills gave it a boost and later in 1980s, Krashen's (1982) ideas about comprehensible input made listening fashionable again. Research on reading has also flourished, both in first and second language since 1980s. Recently, several studies have been carried out in this field (for example, Jafarigohar, 2012; Lien, 2011) which have investigated some factors on reading comprehension. This study aims to investigate one of these factors, intelligence; in other words, the relationship between intelligence and foreign language reading and listening comprehension will be investigated in this study.

1.2. Statement of the Problem

Comprehension and production are two indispensable components of communication. Therefore, comprehension and production both for the sake of communication must be taken into consideration. Children are unable to produce words or sentences for the purpose of communication without first comprehending the language (Steinberg & Sciarini, 2006). Brown (2007) also believes that speech comprehension develops prior to speech production in adults. Therefore, reading and listening comprehension as two significant skills of SLA must receive a great deal of attention.

As it was mentioned earlier, intelligence, as one of the individual factors, may play a role in reading and listening comprehension. The question of why students perform differently in reading and listening comprehension tests has not been

answered conclusively. When a placement test is administered and students are placed in a class, they are expected to be homogeneous, but teachers are usually surprised by the performance of the students in reading and listening comprehension tests.

Intelligence Quotient (IQ) score may help the educational system to have a better look at the students or even add an IQ test to their placement test. Thus, heterogeneous reading and listening comprehension scores in a situation where students are given the same instruction and facility is the problem under investigation in the present study, and different IQ score can be a potential reason for this problem.

1.3. Objectives and Significance of the Study

The objective of this study is to investigate the role of intelligence in reading and listening comprehension in an EFL setting. As the importance of reading and listening comprehension and role of intelligence in SLA were discussed, a study on the relationship between these three variables can be worthy of further investigation.

To the best of my knowledge, such a study will be carried out for the first time in Iran. The findings of this study can benefit researchers and teachers as well as test developers. If a relationship between aforementioned factors is found to be positive, this understanding can help test developers to include IQ questions in their placement tests or design the tests in a way that intelligence is also taken into account. Teachers can be aware of students' IQ; as a result, they can harmonize their teaching instruction with their students' IQ. The result can also provide an impetus for other researchers for more follow-up studies at larger scales in Iran.

1.4. Research Questions & Hypotheses

The main questions which the study tries to answer are as follow:

1. Is there any relationship between intelligence and reading comprehension among upper-intermediate Iranian EFL learners?
2. Is there any relationship between intelligence and listening comprehension among upper-intermediate Iranian EFL learners?
3. Is there any difference between male and female Iranian EFL learners of upper-intermediate level regarding the relationship between intelligence and their reading and listening comprehension?
4. Is there any difference between different age groups of Iranian EFL learners of upper-intermediate level regarding the relationship between intelligence and their reading and listening comprehension?

Concerning the research questions the following null hypotheses will drive the present study:

1. There is not any statistically significant relationship between intelligence and reading comprehension. Simply put, different IQ scores have nothing to do with the performance of upper-intermediate EFL learners in reading comprehension tests.
2. There is not any statistically significant relationship between intelligence and listening comprehension among upper-intermediate EFL learners.
3. There is not any significant difference between male and female EFL learners of upper-intermediate level regarding the relationship between intelligence and their reading and listening comprehension.

4. There is no significant difference between different age groups of EFL learners of upper-intermediate level regarding the relationship between intelligence and their reading and listening comprehension.

1.5. Limitations and Delimitations of the Study

This is a quantitative study with correlational design. Intelligence and receptive language skills (listening and reading) are independent variables, the relationship of which is to be investigated in the present study. Age (three age groups) and gender are moderator variables of the study, and participants' language proficiency as upper-intermediate one is a control variable. A number of limitations and delimitations, due to the nature of the study, are imposed upon the research design.

1.5.1 Delimitations

This study focused on learning English in universities and institutes in EFL context and mainly in Iran; therefore, some of the results may not be applicable to other contexts such as ESL. Upper-intermediate level is the level which has been investigated in the study and the results might not apply to other levels of proficiency. The last delimitation which is worthy of consideration is limited age groups and the participants' native language. Having only three age groups and only Persian learners of English can limit the results to be used in other contexts.

1.5.2 Limitations

There were also some limitations in the current study. The first limitation is concerned with the unequal number of males and females in the study. The second one is concerned with participants; not having an equal number of participants in different age groups, and not having enough participants to divide them into two or three levels of proficiency can be mentioned. The last one is related to administration of the

listening test. There was not a well-organized laboratory with enough headsets for performing the listening test without any noise. For future research, it is suggested to include an equal number of males and females, to spend longer time and more money to have more participants, and to utilize a more motivating mechanism for the data collection.

1.6 Definition of Key Terms

There are some key terms that should be defined and clarified at the beginning of this study. The terms defined in this section include: 1) *Intelligence*, 2) *Reading Comprehension*, and 3) *Listening Comprehension*.

1.6.1. Intelligence

Columbia Encyclopedia (2000) defines intelligence as the general mental ability involved in calculating, reasoning, perceiving relationships and analogies, learning quickly, storing and retrieving information, using language fluently, classifying, generalizing, and adjusting to new situations. Most people may define intelligence as an inborn and general ability that enables us learn better or faster, but according to Gardner (1999), every society has its own ways of defining intelligence and considering someone intelligent. As in psychology intelligence refers to the ability to achieve goals in a wide range of environments, in SLA it refers to the learner's score in an IQ test.

1.6.2. Reading Comprehension

Reading comprehension is a complex undertaking that involves many levels of processing. It can be defined as the level of understanding of a text, and this understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text. Base on National Reading Panel (2000)