

## Effects of Bilingualism and Monolingualism on Iranian EFL Learner s' performance on Reading Comprehension Test

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### Abstract

This study aimed at comparing the performance of bilingual and monolingual groups of Iranian EFL learner's performance on reading comprehension test. Altogether 30 Turkish – Persian bilinguals, and 30 Persian monolingual majoring in English as a foreign language at participated in the study. The subjects in two groups were homogeneous in terms of age (20-21 years old), sex (they were all female), nationality (they were all Iranian), and proficiency level (intermediate). Different testing instruments were utilized in the process of the development of the present research. A Nelson proficiency test was used to determine the student's level of language proficiency during the term reading strategies were taught to the students. The results showed that the use of strategies by bilinguals had significant effect on their better performance on reading comprehension. In addition, there was not a significant difference between the performance of bilinguals and monolingual test on reading comprehension test.

**Keywords:** bilingual, monolingual, homogeneous, comprehension test

### INTRODUCTION

The ability to speak two languages is often seen as something of a remarkable achievement, particularly in the English – Speaking countries. Since 70% of the earth's population is taught to be bilingual or multilingual (Trask, 1999), there is good reason to believe that bilingualism is the norm for the majority of people in the world. With regard to the advantages and disadvantages of bilingualism, different views have been expressed by researchers in the field. Most of the earlier studies suggested that bilingualism was associated with negative consequences (see, for example, Anastasi and Cordora, 1953, Darcy, 1953, printer and keller, 1992, Saer, 1923). These studies

supported the idea that bilingual children suffered from academic retardation, had a low IQ and were socially maladjusted as compared with monolingual children.

Contrary to these claims, some research studies in the 1970s and 1980s demonstrated that bilingualism positively influence the child's cognitive and social development (Ben-Zeev, 1977; Bialystock, 1986; Cummins, 1976). These studies indicated that bilinguals have more enhanced awareness of the arbitrary relationship between words and their referents and superior metalinguistic skills. Viewing bilinguality in the framework of metalinguistic awareness, Segalowitz (1977) suggests that the internalization of two languages rather than one will result in a more complex, better equipped mental calculus enabling the child to alternate between two systems of rules in the manipulation of symbols. Further, Bialystock (1986) hypothesized that bilingual children have an advantage over monolinguals in their control of the linguistic processing needed for metalinguistic problems.

Many studies have also found that bilingualism has a positive effect on foreign language achievement (Cummins, 1979; Hoffman, 2001, Klein, 1995; Sanz, 2000, Zibl, 1993). Eisenstein (1980) for instance, found that childhood bilinguality had a positive effect on adult aptitude for learning a foreign language. That is, those who learned a second language during childhood would have a greater success in learning foreign languages as adults. Thomas (1988) also compared the acquisition of college French by English monolinguals and English-Spanish bilinguals. Her study yielded striking differences between the two groups with the bilinguals outperforming the monolinguals. She concluded; bilinguals learning a third language seem to have developed a sensitivity to language as a system which helps them perform better on those activities usually associated with formal language learning than monolinguals learning a foreign language for the first time.

Mixing results of studies on the consequences of bilinguality caused some scholars to conduct experiments with more controlled variables. The findings of some of these studies led to neutral attitude toward bilingualism. In their studies, Barik and Swain (1978) examined the performance of larger samples controlled for sex and age, and found no significant difference between monolinguals and bilinguals in terms of their intelligence, mental development and school achievements. More, recently, Nayak et al. (1990) comparing the acquisition of an artificial grammar by monolingual, bilingual and multilingual students, reported that although the multilinguals showed superior performance under certain conditions, they generally showed no clear evidence that they were superior in language learning abilities (1990). Magiste (1984) reported an investigation by Balk - Aurell and Lindbad (1982) on the differences between monolingual and bilingual immigrants of varied L<sub>1</sub>s with Swedish as L<sub>2</sub> in learning English as a foreign language. The results showed no difference between the bilinguals and monolinguals in standardized tests of English comprehension and grammar performance.

One of the most fundamental assumptions underlying the efficiency of bilingual instruction is that skills and knowledge learned in L<sub>1</sub> transfer to L<sub>2</sub> (Goldman et al,

1984; Malakoff, 1988). Thus, a child learning about velocity in Spanish, for example should be able to transfer this knowledge to English without having to relearn the concept, as long as the relevant vocabulary (in L<sub>2</sub>) is available. Having the content knowledge already available in L<sub>1</sub> seems to greatly facilitate the learning of the appropriate vocabulary items in L<sub>2</sub>. The notion of transfer of skills is supported by research in cognitive science where attempts are made to look for representational schema for complex narratives in two languages. For example, Goldman et al. (1984) showed that bilingual children employ similar comprehension strategies when listening to Aesop's fables in two languages, providing indirect evidence that higher - order cognitive processes manifest themselves regardless of the specific language. Malakoff (1988) also found similarity in performance on analogical reasoning French - English bilingual children in Switzerland. Additionally, research on adult bilingual memory for lists of words suggests that the particular language of presentation of specific words can be remembered under some conditions, but that in general, the content transcends language (Hamers and Blanc, 1989).

In essence, in the act of learning concepts and skills, people form a schema that is independent of the specific language of presentation, even though the act of learning can involve active recruitment of the language to regulate thinking. Given that skills do transfer across languages. It is possible to think about transfer as occurring on a specific, skill - by - skill componential basis, or, more globally, where the entire structure of skills in a domain transfers as a whole with regard to vocabulary learning, most words in both first and second languages are probably learned incidentally, through extensive reading and listening (Nagey et al, 1985). Several recent studies have confirmed that incidental L<sub>2</sub> vocabulary learning through reading does occur (Chun and Plass, 1996 Day et al, 1991).

While incidental learning of vocabulary may eventually account for a good majority of advanced learner's vocabulary, intentional learning through instruction also significantly contributes to vocabulary development (Nation, 1990, Zimmerman, 1997). Explicit instruction particularly is essential for beginning students whose lack of vocabulary limits their reading ability. Knowing approximately 3000 high frequency and general academic words is significant. The 2000 high service list covers 87% of an average non- academic text and 80% of an average academic text (Nation, 1990). For second language learner's entering university, Laufer (1992) found that knowing a minimum of about 3000 words required for effective reading at the university level, whereas knowing 5000 words indicated likely academic success. One way to estimate vocabulary size is to use Nation's (1990) vocabulary levels Test or a checklist test which requires learners to mark the words in a list that they believe they know (Meara, 1992).

In the present study, the relationship between bilingualism of second language learner's performance on reading comprehension test in the target language will be investigated. Therefore, the following question is formulated:

**RQ:** What are the effects of bilingualism and monolingualism on Iranian EFL learner's reading comprehension skill?

Considering the aforementioned research question, the following null hypothesis has been formulated:

**RH:** There are no effects of bilingualism and monolingualism on Iranian EFL learner's reading comprehension skill.

## LITERATURE REVIEW

Bilingualism, defined as possessing two languages, has always been a controversial issue in society. During the early 1900s, bilingualism was considered an unwelcome topic among American professionals and politicians. Educators rendered bilingualism responsible for immigrant children's failure in school subject matter. Employers believed that immigrants, due to their low competence in English, did not fit the requirements needed to become part of the United States workforce.

Psychologists regarded bilingualism as a handicap to cognitive development; it was assumed that bilingualism was a barrier affecting verbal intelligence (Vygostky, 1978). Language plays a major role in thinking. It serves as a mediator for the connection of thoughts and ideas. (Anderson, 1995). The role of language is more than a passive host for the enhancement of thinking. It plays an active role in the production of metacognitive thinking. It creates a state of alertness for the thinker to check his or her productive thoughts. Thus, a lack of language proficiency can limit a thinker's awareness of contemplating new idea that can emanate from his previous thoughts or monitor his thinking process. Pearson and Cummins (1981) also entertain the cognitive advantages of bilingual proficiency. He asserts that bilingual individuals who reach a minimum level of language proficiency in both first and second languages are capable to demonstrate great thinking skills.

Kashavarz (2004) investigated the impact of bilinguality on the learning of English vocabulary as a forging language. The results of the data analysis showed that native speakers of Turkish and Armenian who speak Persian as their second language performed better in English vocabulary test than the Persian monolingual learners of English. Corsby and Drescod (2000) indicated the effects of bilingualism on cognitive abilities. The results showed that bilingualism in children is positively related to concept formation, classification, creativity and analogical reasoning. Bialystock (1986) showed that children's bilingualism positively affects their increasing ability to solve problems involving high levels of control of linguistic processing. Diaz and Klinger (1991), stated that the positive effects of bilingualism were clearly connected to low levels of second language proficiency that a new threshold hypothesis was formulated Diaz suggested that only before a certain threshold of second – language ability, would proficiency have a strong impact on cognitive ability. Tafaraji and Malekzadeh (2015) investigated the effect of bilingual on the developing of English reading skill. The result of their study revealed that reading skill was statistically significant in bilingual students, in comparison with monolingual counterparts.

Gottardo (2008) stated that bilingualism is a complex phenomenon that factors such as age, first language, environment and situation can influence it. Peal and Lambert (1962) in their studies with French-Canadian children in Canada demonstrated that French-English bilinguals cognition performance were superior to monolinguals. So they concluded that bilinguals possess higher level of diversified intelligence, a formal flexibility, a superiority in concept formation, and a more diversified set of mental abilities. Valencia and Cenoz (1993) showed that bilingual students have a superiority in learning foreign language in contrast to monolingual students. Thomas (1988) stated that bilinguals are more sensitive to language system and can more efficiently in formal learning compared with monolinguals. Bialystok (2001) manifested high metalinguistic awareness of bilingual students. She found that bilingual students were more fluent in judging the grammatically of sentences than monolinguals. Kashanian and Esmaeli (2011) in study with 30 female American-Persian bilinguals and 30 female Persian monolinguals at two different pre-university centers of Esfahan (Iran) proved that bilingualism is highly correlated with breadth of vocabulary knowledge and reading skill.

## **METHOD**

### **Participants**

The participants of this study were 30 bilingual (Turkish – Persian) students and 30 monolingual students (Persian) majoring in English as a foreign language at Tabriz University. Since the intended level of students was intermediate, they were given a Nelson English language proficiency tests. After conducting the test, 30 bilingual (females) and 30 monolinguals (males), monolingual whose scores were one standard deviation above and one standard deviation below the mean were qualified for this project. The rationale behind this type selection was that poorest readers could not use reading strategies. Furthermore; research findings have demonstrated that poor readers, unlike good readers, do not acquire reading strategies by themselves. Most of the advanced readers may not use reading strategies or have had mastered many of these strategies so far. Thus they not need extra strategy training in reading comprehension (Carrel, 1998). The age of these students from (20-21) years old.

### **Instruments**

Several different testing instruments were utilized in the process of the development of the present research. The first instrument used in this study was a nelson proficiency test to determine the student's level of language proficiency which was intended to be intermediate. The reason for choosing this level was to heave a homogeneous group that is potentially ready to be taught reading strategies. Thirty items of Nelson proficiency test were applied to determine the homogeneity of the groups regarding their levels of proficiency as intermediate level. The reliability of this homogeneity test was computed through the application of kudar and Richardson (KP-21) method as ( $r=0.75$ ). The rationale behind adopting this test for the purpose of the study was that it is one of the available standardized tests compatible with Iranian students. The second

instrument was a couple of reading tests. One to measure participant's power and the other to measure their speed. Since the purpose of this study was to discover the effect of bilingualism and gender on the performance of students in reading comprehension, two modes of tests (Power and Speed) were used avoid the side effect of time on the participant's performance. The power test consists of the reading texts taken from the book select readings, the intermediate level by Linda lee and Errick Gunderson (2001).

## **Procedure**

First, about 100 bilingual students (Turkish – Persian) and 30 bilingual (Persian) were selected in this research. To control the students of proficiency which was intermediate, they were given a Nelson proficiency test with 86 coefficient of reliability measured by Cronbach alpha formula. Then after giving a proficiency test to the students, students 60 out of 102 whose scores fell between one standard deviation below the mean score were selected as the participants of the study. They included 30 bilinguals (Turkish – Persian) female and 30 monolingual students (Persian). Then the selected students were taught the reading strategies developed by the author with 72.5 coefficient or reliability. In each session after strategies, a text was given to the students and they were asked to answer the reading comprehension questions.

By doing this, the researchers aimed to make students apply the already learned strategies, they were also required to mention the strategies that they had used to reach their answers. The chosen text did not need to be difficult, since the goal was to use strategies and saw the results of the given strategies on their reading comprehension. Due to the shortage of time these texts were also quite short so that students could finish them in given time. During the term the students were practicing their reading strategies whole doing their reading comprehension tasks.

Two types of reading takes were given to students, one as an extensive reading task to prepare them for speed test; the other intensive reading task to prepare them for power test. At the end of the term both groups were two tests; one elicited the student's power, the other determined the other determined the students speed in dealing with reading task which in turn is a sign of students' mental power in quick analysis of reading task. Independent samples t-test was applied to analyzed the results the results obtained from the performance of bilinguals in reading comprehension.

## **RESULTS**

As stated before, this study attempted to investigate whether there is any difference between the performance of bilinguals and monolinguals in reading comprehension. Table 1 shows the results of descriptive statistics among both monolinguals and bilinguals.

**Table 1.** Descriptive Statistics

	Mean	SD	Std. Error Mean
Monolinguals	2	13.171	2.384
Bilinguals	82	15.564	3.848
Total	34		

In addition, another goal of his research was to see the significant difference between monolinguals and bilinguals in reading comprehension.

**Table 2.** Independent Sample t-test of monolingual and bilinguals in reading comprehension.

	Test	Mean	SD	Observed t	df	Level of significant	Critical t
Monolinguals Bilinguals	Reading Comprehension	18.13	4.977	1.602	58	0.112	2.087

Table 2 shows that the mean of monolingual and bilingual reading comprehension are 18.13 and SD is 4.977. According to the table 2 we can say that there is a significant difference between monolingual and bilingual comprehension tests.

## DISCUSSION AND CONCLUSION

According to the results obtained from the two t-test which were applied separately for the performance of Turkish – bilinguals and monolinguals in power and speed tests, the hypothesis was confirmed that means there is significant difference between the effects of bilinguals and monolinguals performances on reading comprehension. Though, the mean scores show general difference between the two group's performances. In fact, the mean score of bilinguals was higher than that of monolinguals. This implies superiority of bilinguals over monolinguals. Also studies conducted over the last two decades provide evidence that linguistically diverse children continue to lag behind monolingual English – Speaking children in reading performances. The lack of meaningful difference between the two groups performances could be due to a number of reasons. Firstly, it could be due to the fact that Turkish – bilingualism may not have any direct effect on better comprehending of English texts. Since these two language (Turkish and English) seem to have different structures and vocabularies, they are unlikely to have any direct mutual effect on one another. Another important point about our bilingual subjects is that they have only over their spoken language and they may know only a little about the written form of their language.

Thus, the comparison which is performed in this study is not actually comparing the effect of completely acquired language on reading comprehension of English. In fact, it somehow shows the influence of the spoken form of on language on reading comprehension of another language. Besides, the type of Turkish enquired by our bilingual group is not considered a standard Turkish and it's full of expressions, vocabularies, and even, some idioms and structures are mingled with their spoken

language. Therefore, these bilinguals cannot be defined as real bilinguals who know two separate languages simultaneously.

One of the reasons for better performances of Turkish bilinguals over monolinguals is that bilinguals in general have control over the system of two different languages simultaneously and this could help them to make use of the reading strategies more effectively than monolinguals. However, Pardon, Knight and Waxman (1986) found that bilingual students use fewer strategies and different types of reading strategies than English monolingual students reading in their mother tongue. Another reason could be due to the fact that bilinguals could have had the experience of using strategies previously to learn their second language. Also, research on reading strategies indicated that monolingual English – Speaking children have benefited from meta – cognitive strategy training. Mature readers (Plains, Car and Brown, 1994) and female students (knight, pardon and Waxman, 1986), for example are more likely to use a variety of cognitive strategies.

In fact, the results of the present study are in line with the previous studies which have shown the positive relationship between students' bilinguality, recognizing Spanish language cognates and English reading comprehension (Nagy ,1993), findings of Kashaian and Esmaeli (2011) that showed bilinguality is highly correlated with breadth of vocabulary knowledge and reading skill, and findings of Hakuta and Diaz (1985) the positive effect of bilingualism on intelligence and cognitive flexibility. These findings are in contrast with the findings of Van Gelderen (2003) that claimed bilinguals were weaker in reading comprehension of L3 than monolinguals, and findings of Karimi and Kabiri (2011) that Iranian bilingual students got lower scores than monolingual in reading comprehension test.

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