Exploring the Effects of First Language Reading on Second Language Reading across Different Proficiency Levels

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Abstract—This study examines exploring the effects of first language reading on second language reading comprehension across different proficiency levels. The participants of this study are freshmen B.A students of English translation at Ramsar and Rudsar Payam nur university. In order to examine the focus of the study, different instruments were used. 118 students were selected out of 150 ones and divided into three groups based on their scores in NELSON test. This test was conducted to measure students’ proficiency level and to homogenize them. Then the students were divided into three proficiency levels: beginner, intermediate and advanced. For the first part of the study, they received English cloze tests and after that, they received Persian cloze texts, which were the exact translation of English cloze tests. Paired-Samples T-Test and multiple regression were used to measure their cloze tests answers. The results showed no significant difference; hence configuring the null hypothesis of the study.

Index Terms—first language, second language, reading, reading strategies, reading comprehension, language proficiency, top-down processing, bottom-up processing

I. INTRODUCTION

Alderson (2000, p.28) explains reading as ‘…an enjoyable, intense, private activity, from which much pleasure can be delivered, and in which one can become, totally absorbed’. Reading is shown as an important source of intelligible input and as the ability that many strict learners would need. The second language (L2) reading process involves the interaction of two language systems. When readers read in a second language, they reach to their first language (L1) and often employ their L1 as a reading strategy, although L1 and L2 reading vary in many ways. (Carson, Carrell, Silberstein, Kroll, & Kuehn, 1990; Upton & Lee-Thompson, 2001). We still do not know whether L2 readers process a text similarly or differently in L1 and L2. What is needed is empirical research to investigate the matter of L1 and L2 reading comprehension processes. Those Information are needed which are about how the same readers afford with reading tasks in L1 and L2. Only empirical experiments on comprehension processes in L1 and L2 and the same individual readers provide the evidence. It is not clear whether L2 readers process a text similarly or differently in L1 and L2. There is a need for empirical research to explore the nature of L1 and L2 reading comprehension processes. Reading for general comprehension is, in its most obvious sense, the ability to understand information in a text and interpret it appropriately. However, comprehension abilities are much more complex than this definition suggests (Grabe & Stoller, 2012). The rejection or support of the hypothesis was justified by explaining the consequences of such rejection or support, i.e. what would happen if the hypotheses of the current study was rejected or supported.

In recent years, Iranian researchers have reviewed L1 reading skills and L2 reading skills and the relationship between them (Talebi, 2007, 2007, 2012; Birjandi and Marzban, 2012; Sheiei Ebrahimi, 2012; Pourhosein Gilakjani & Ahmadi, 2011; Nazary, 2008; Parvaresh & Nemati, 2008). In all these studies, Farsi language is considered as the first language and English language as the second language.In the study conducted by Talebi (2007), the participants were classified into intermediate and advanced proficiency levels. Results showed that the reading strategy knowledge can be the same in L1 and L2 at two proficiency levels of intermediate and advanced levels, however, L1 reading strategy order had different affect on the reading ability of students in L1 and L2 (Talebi, 2007). In a study of reading strategies that using a reading strategy questionnaire and a semi-structured interview, Shafiei Ebrahimi (2012) found in comparison to the other group of students, advanced proficiency students used more reading strategies in L2. There was an overlap in the types of strategies used for both L1 and L2 reading proficiency levels. The results of some studies show that the L1 reading and L2 proficiency cooperate extremely to L2 reading. Readers’ L1 reading ability and L2 language proficiency contribute to L2 reading comprehension (Carrel, 1991). As cited in Cui (2008) the differences

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between skilled and less skilled readers indicated that L2 reading ability could be predicted only by a difference in L2 proficiency. Research about the relationship between L1 and L2 is divided into two parts, process-oriented and product-oriented. It is of course known that L1 and L2 reading differs in many ways. We have to understand the role of L1 literacy in the development of L2 reading.

H1: The one who has a good L1 reading proficiency is more successful in reading a foreign/second language text.
H2: The proficiency of L2 influences on the L2 reading comprehension.

II. MATERIAL

The participants of this study were 150 students, both male and female, from the Payam Nour university (Rudsar and Ramsar Branches) majoring in English translation. They were between 20 to 22 years of age and they were randomly selected. One questionnaire was given to each participant to know how many languages they knew. The questionnaire was selected from North Western Bilingualism & Psycholinguistics Research Laboratory under the title of Language Experience and Proficiency Questionnaire (LEAP-Q). It was found that 118 of them were bilingual (Persian as their first language and English as their second language). The proficiency test of Nelson (section 300D) consists of grammar and vocabulary sections therefore, from among 150 students subjects, 118 subjects were chosen that each one having its own subsection. It was a 50-item test which its Grammatical section consists of sentence completion task and error recognition task. The vocabulary section consists of synonym task and Nation’s vocabulary levels test. In Nation’s vocabulary test, the students should find the more suitable word which matches the sentence. Then, the participants were divided into three groups (beginner, intermediate, and advanced). The test contained Grammatical and Vocabulary sections that each one has its own subsection. Grammatical section consists of sentence completion task and error recognition task. Vocabulary section consists of synonym task and Nation’s vocabulary levels test. In Nation’s vocabulary test, the students should find the more suitable word which matches the sentence. To measure L2 reading ability, English cloze test would be given to the students. Each passage was given to the students with a one week interval. The topic of the passages was according to students’ interest. Persian cloze test would be used here. It should be mentioned here that the passages used in this test were the translated versions of English passages. These passages were given to them two weeks after the last English cloze test, and each one was distributed after one week of interval.

III. INSTRUMENTATION

Each student received the same questionnaire consisting of some questions such as their name, age, and their age of access to English, their interest, etc. They would be required to answer the questions which were about their language knowledge, i.e. how many languages they know. The students which knew more than two languages, or those whose first language was not Farsi, would be removed from the sample. The questionnaire would be translated to Persian and the students would need to complete in two languages. The proficiency test of Nelson test administered to divide the participants into three groups of beginner, intermediate, and advanced. The test contained Grammatical and Vocabulary sections that each one has its own subsection. Grammatical section consists of sentence completion task and error recognition task. Vocabulary section consists of synonym task and Nation’s vocabulary levels test. In Nation’s vocabulary test, the students should find the more suitable word which matches the sentence. To measure L2 reading ability, English cloze test would be given to the students. Each passage was given to the students with a one week interval. The topic of the passages was according to students’ interest. Persian cloze test would be used here. It should be mentioned here that the passages used in this test were the translated versions of English passages. These passages were given to them two weeks after the last English cloze test, and each one was distributed after one week of interval.

IV. DATA COLLECTION PROCEDURES

This study examined first and second language reading comprehension performance in relation to different proficiency levels. To achieve this goal, the subjects, were divided into three groups (beginner, intermediate, and advanced). The participants answered the questions of a questionnaire; then, the next step was answering the questions of the Nelson test as a proficiency test. Finally, the participants took the test of reading comprehension, the scores of which were compared in all three levels through statistical calculations.

A. The Pilot Study

In order to have essential modifications, the test have been piloted before administration of Language Proficiency Test (NELSON). The participants of the pilot study included 35 students from the same population but they didn’t participate in the actual study.

B. Design of the Study

The methodology of this study contained a number of steps: first, 150 participants of the study were selected randomly from Ramsar and Roodsar PayamNur University and a questionnaire was given to all participants to know how many languages they could speak. 118 of them were bilingual. The second step was to administer a Nelson test as a proficiency test. The reliability of this test will be tested before. Via administering a proficiency test of Nelson, the participants were assigned into three groups (beginner, intermediate, advanced). The third step was giving three English and Persian reading comprehension texts to all three levels (beginner, intermediate, advanced). Finally, the participants' scores in both English and Persian reading comprehension texts were compared through statistical calculations.

The data obtained from testing the first and second hypotheses of this study were analyzed via calculating the descriptive statistics as well as the inferential statistical method of Paired-Samples T-Test and multiple regression were used to measure their cloze tests answers.

Table (1) shows the descriptive analysis for the first reading and second reading in the elementary group of the study:
Table (1) indicates the number of participants in elementary (beginner) level is 37 (N=37), secondary (intermediate) level is 43 (N = 43), and the advanced level is 38 (N = 38). The means of elementary group are 33.84 and 32.11 (Xelemenpersian = 33.84) and (Xelemenenglish = 32.11); secondary group are 34.9070 and 32.8140 (Xsecondarpersian = 34.9070) and (Xsecondarenglish = 32.8140); advance group are 43.6316 and 45.5526 (Xadvancepersian = 43.6316) and (Xadvanceenglish = 45.5526). As for the standard deviations obtained for these groups, there seems to be more variability among the elementary English group scores than the scores of the elementary Persian group, more variability among secondary English group than secondary Persian group.

The following table illustrates the data for the inferential analysis of the study:

<table>
<thead>
<tr>
<th>Table 2.</th>
<th>PAIRED SAMPLES STATISTICS OF THREE GROUP OF THE STUDY</th>
</tr>
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<tbody>
<tr>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Pair 1</td>
<td>beginnerpersian</td>
</tr>
<tr>
<td></td>
<td>beginnerenglish</td>
</tr>
<tr>
<td>Pair 2</td>
<td>interpersian</td>
</tr>
<tr>
<td></td>
<td>Interenglish</td>
</tr>
<tr>
<td>Pair 3</td>
<td>advancepersian</td>
</tr>
<tr>
<td></td>
<td>Advanceenglish</td>
</tr>
</tbody>
</table>

As is indicated in table (2), the number of participants of beginner group have been 37 (Nbgeneratorpersian=37; Nbgeneratorenglish= 37). The mean for the beginner Persian group is shown to be 33.84 (Xbeginnerpersian= 33.84) as compared to the mean for the beginner English group which is 32.11 (Xbeginnerenglish= 32.11). According to the current table, the mean of beginner group decreased from Persian reading comprehension to English reading comprehension. The number of participants of intermediate group have been 43 (NIntermediatepersian=43; NIntermediateenglish= 43). The mean for the intermediate Persian group is shown to be 34.9070 (XIntermediatepersian= 34.9070) as compared to the mean for the intermediate English group which is 32.8140 (XIntermediateenglish= 32.8140). The mean of intermediate group decreased from Persian reading comprehension to the English reading comprehension. The mean for the advance Persian group is shown to be 43.6316 (XAdvancepersian= 43.6316) and (XAdvanceenglish = 45.5526) as compared to the mean for the advance English group which is 45.5526 (XAdvanceenglish= 45.5526). As for the standard deviations obtained for these two advance groups, there seems to be more variability among the advance Persian group scores than the scores of the advance English group.

<table>
<thead>
<tr>
<th>Table 3.</th>
<th>PAIRED SAMPLES TEST OF GROUPS OF THE STUDY</th>
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<tbody>
<tr>
<td>95% Confidence Interval of the Differences</td>
<td>t</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Pair 1</td>
<td>beginnerpersian-beginnerenglish</td>
</tr>
<tr>
<td>Pair 2</td>
<td>Interpersian-Interenglish</td>
</tr>
<tr>
<td>Pair 3</td>
<td>advancepersian-advanceenglish</td>
</tr>
</tbody>
</table>

According to this table, Sig. (2-tailed) is .000 (less than .05), thus we can conclude that there is a statistically significant difference between the scores of beginner Persian and beginner English groups. Also, the t value is 4.244 and the degrees of freedom is 36 (df=36). The Mean decrease is 1.73 with a 95 percent confidence interval stretching from a lower bound of .903 to an upper bound of 2.556. Based on this table, Sig. (2-tailed) for the intermediate group is .000 (less than .05), thus we can conclude that there is a statistically significant difference between the scores of intermediate Persian and intermediate English groups. Also, the t value is 4.757 and the degrees of freedom is 42 (df=42). The Mean decrease is 2.09302 with a 95 percent confidence interval stretching from a lower bound of 1.20508 to an upper bound of 2.98096; Sig. (2-tailed) for the advanced group is .000 (less than .05), thus we can conclude that there is a statistically significant difference between the scores of advanced Persian and Advanced English groups. Also, the t value is -4.299 and the degrees of freedom is 37(df=37). The Mean decrease is -1.92105 with a 95 percent confidence interval stretching from a lower bound of -2.82649 to an upper bound of -1.01562.
According to this table, R Square of advanced group is .018. This means that our model explains just 1 percent of the variance in reading comprehension of advanced group and this value was too small; R Square of intermediate group is .008. This means that our model explains just 1 percent of the variance in reading comprehension of intermediate group and this value is too small; R Square of beginner group is .008. This means that our model explains just 1 percent of the variance in reading comprehension of advanced group and this value is too small.

To assess how much second language skills affect the second language reading comprehension, multiple regression was used. In table model summary, it is said that how much of the variance in the dependent variable is explained by the model.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Squared</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>advanced</td>
<td>.136*</td>
<td>.018</td>
<td>-.008</td>
<td>1.993</td>
</tr>
<tr>
<td>intermediate</td>
<td>.38*</td>
<td>.008</td>
<td>-.017</td>
<td>2.359</td>
</tr>
<tr>
<td>beginner</td>
<td>.89*</td>
<td>.008</td>
<td>-.020</td>
<td>2.378</td>
</tr>
</tbody>
</table>

In this table the statistical significance is .580 (Sig=.580) and this value is larger than 0.05. So, this means that there is not any significant difference between current variables and the null hypothesis is supported. That is, in the current study the second language skills have no effect on second language reading comprehension in intermediate group. Significance of intermediate group is .599 (Sig=.599) and this value is larger than 0.05. So, this means that there is not any significant difference between current variables and the null hypothesis is supported. That is, in the current study the second language skills have no effect on second language reading comprehension in beginner group.

V. RESULTS OF HYPOTHESES TESTING

The first hypothesis which targeted the effect of having a good reading proficiency on second/foreign language text was rejected. Evidence from the findings of the study could help to verify the rejection. The mean scores of the reading comprehension test in beginner and intermediate levels of the study were shown to be different (their mean was lower in English reading comprehension test than in Persian reading comprehension test). However, the advanced group outperformed in English reading comprehension than in Persian reading comprehension. As a result we can conclude that L1 reading comprehension affects more the L2 reading comprehension. The second hypothesis which targeted the effect of L2 proficiency on the L2 reading comprehension was rejected, too. According to the analyses done there was not a statistically significant difference between the current variables.

VI. DISCUSSION

Studies on reading strategies reflect a shift in attention from a focus on the product of reading, e.g., a score on a reading comprehension test, to process-oriented research which emphasise determining the strategies that readers actually use while they are reading. Reading strategies are of interest for what they reveal about the way readers manage their interaction with the written text and how these strategies are related to text comprehension (e.g., Carrell, 1989 as cited in Seng and Hashim, 2006).

As cited in Shafiei Ebrahimi (2012), The consensus among reading educators and experts is that reading is a complex, interactive process that involves features of readers, texts and tasks (Bernhardt 1995; Grabe & Stoller, 2002; Maarof, 1998; Rumelhart, 1977 in Singhal, 1998). In the reading process, the reader is an active participant, constructing meaning from clues found in printed text (Anderson & Pearson, 1984; Bernhardt, 1991, Carrell, 1991; Grabe, 1991; Rumelhart, 1980). In other words, meaning is not inherent in texts, rather texts have the potential for meaning (Widdowson, 1984). Reading is also an individual process that often entails different interpretations for different readers. Till now, the focus of research revolves on whether reading in one’s first language (L1) is similar or different; If similar strategies are used in reading in L1 and L2. Researchers try to examine any relationship between L1 and L2 reading processes. Another hot issue is whether reading in L2 is a reading or a language problem (Alderson, 1984). If the strategies used by proficient L1 readers are transferable to reading in the L2. Both reading in L1 and L2 involve the use of various strategies that assist readers in understanding what is read (Carrell, 1991; Bosser, 1992). Studies show
that both readers’ L1 reading ability and L2 language proficiency contribute to L2 reading comprehension (Carrell, 1991; Bosser, 1992).

The study is motivated by the need to make clear one of the main issues in TEFL, namely developing reading skill by removing difficulties which most teachers and students encounter in EFL classrooms. One of those obstructions has the root in text-based variables as existence of unknown and unusual words in a reading text. The second problem is related to the lack of the attention to the individual learners’ wants, needs and inherent abilities in designing classroom reading activities. Pertaining to these issues, the study was set up to explore the effect of first language reading on second language reading as leading factors to overcome the problems and make the major advancement in reading comprehension achievement of the EFL learners. With regard to the correlation between scores in L1 reading and L2 reading, a few studies have shown a stronger correlation for advanced learners than for beginners (e.g., Bossers, 1991; Carrell, 1991). Other studies have shown no difference despite testing at various levels of L2 knowledge (e.g., Bernhardt & Kamil, 1995; Tailfeer, 1996).

As Ahmadi Gilani et al. (2012) had stated, the ability to recognize a text is based not only on the students linguistic knowledge, but also on general knowledge of the world and the extent to which that knowledge is activated during processing. The conclusion of all ESL/EFL investigations and the view of reading comprehension as an interactive process between the reader and the text lead to several implications for the teachers. If the unfamiliar content of a text has an effect on reading comprehension, then it must be considered as a criterion in the selection of reading materials and in the evaluation of reading comprehension.

As Cui (2008) concluded, the research into the existence of a language threshold points to pedagogical implications in a number of ways. First, this study underscores the importance of second language skills for efficient L2 reading. Second, teachers are advised to develop an awareness of students’ potential reading problems in order to improve instructional process, given the complexity of the reading process per se. Third, the findings necessitated instructional endeavors to integrate reading skills and language development. L2 reading teachers must stress both the psychological and the linguistic factors. Teachers should develop a good understanding of the phonological, morphological, syntactic, semantic and discourse cues of the target language before they attempt to teach students to utilize these cues. Meanwhile teachers should be aware that some students who know all the words and grammatical structures of a sentence or paragraph cannot comprehend what they read, which reflects the consequence of isolated learning of the language elements without understanding how to apply them to reading in a meaningful way.

**VII. CONCLUSION**

This study investigated exploring the effects of first language reading on second language reading across different proficiency levels. From the perspective of this study, the following field can be prospected further: 1) the time spent to read each text was not measured in each group. It showed that students reading English passages needed additional time than reading Persian passages. The reason is that some words or sentences were vague for some students and the process of the meaning of the message in the passages takes more time. The suggestion for further studies is to rate the time spent by students on reading comprehension and investigate how much this factor affects students’ performance and result of the study.

2) Teachers can design different types of reading activities and materials to increase their students’ understanding of these materials. In this study there was given just one kind of text was administered to students in each level with its Persian equivalent.

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