Investigating the Effect of Using L1 in Teaching English Reading Comprehension to Students of EFL

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Abstract: The study aims at investigating the usage of Arabic language in English reading comprehension. The study employed the experimental research method where the researcher used Arabic in the experimental group to help explaining things when they were not clear; to quickly clarify new vocabulary or phrases, while Arabic was not used at all in the control group. The findings showed a marked improvement in the reading comprehension performance of students who were taught in their first language.

Key word: Reading comprehension, Second language, First language

المستخلص:
تهدف هذه الدراسة إلى بحث استخدام اللغة العربية في تدريس الاستيعاب القرائي لطلاب اللغة الإنجليزية كلغة اجنبية. استخدمت الدراسة البحث التجريبي، حيث قام الباحث باستخدام اللغة العربية في المجموعة التجريبية وذلك لشرح بعض المفردات أو الجمل عندما الحاجة إلى ذلك ولم تستخدم اللغة العربية في المجموعة الضابطة. لذلك فقد أشارت نتائج الدراسة إلى أن الطلبة الذين تم تدريهم باستخدام اللغة العربية مع اللغة الإنجليزية قد تفوَّقوا في التحصيل على نظائرهم الذين تم تدريهم بواسطة اللغة الإنجليزية فقط.

Introduction
The Sudanese ELT curricula for the basic and secondary stages suggest an eclectic approach to teaching. This approach allows the usage of a variety of methods and techniques that help to reinforce learning. In particular, the ELT curriculum SPINE¹ “suggests for the teachers to use translation at an early stage as one of the most practical ways of clarifying the meaning of certain words”. Many specialists in the language teaching field still have reservations about using the L1 in the L2 classroom, objecting to it on the grounds that it limits exposure to the target language. Furthermore, they link students’ failure to speak English with the use of L1 in the classroom, Suleiman². However, the use of L1 is not a sin; it does have a place in ELT since it has the potential to reduce the stress level of the learners and encourage learning. L1 usage in classroom is one of the major issues that we, as English language teachers witness in almost every lesson. The use of the first language (L1) in learning the second language (L2) has been a controversial issue for several years. Many English teachers use L1 in English classes. This has been a normal practice for some English classes in Sudan as English is a foreign language. Some practitioners conclude that there are some negative effects created from this scenario: the use of L1 in FL classes. Students’ deteriorating performance has been associated with incompetent English teachers. Phillipson³ for example asserts that “by using L1 in the classroom, the teacher risked himself, as the students being better speaker, and would control the communication”. On the other hand, some English language teachers claim that, the practice does not affect the students’ process of the learning the language. Meyer ⁴ states “that the process is speeded up as it cuts short the time needed to explain things in English”. This study is set out to answer the following question:
To what extent does the usage of the Arabic language facilitate EFL reading comprehension?

For the purpose of investigating this study question, the following hypothesis is formulated:
The usage of Arabic language facilitates EFL reading comprehension.

**Objectives of the study**
The primary goal of this study is to find evidence to support whether the usage of L1 can facilitate the learning of EFL or not, especially in English reading comprehension.

**Literature review**
The quantity and functions of L1 use have widely been analyzed. The results of studies focused on the quantity of L1 and L2 use by language teachers. Duff and Polio used questionnaire in their study. They documented target language use ranging anywhere from 10% to 100% in the classes they studied. In contrast, the functions of L1 use seem strikingly similar. Furthermore, they identified eight categories of common L1 use: classroom administrative vocabulary, grammar instruction, classroom management, empathy/solidarity, practicing English, unknown vocabulary/translation, lack of comprehension, and an interactive effect in which students’ use of the L1 prompts their instructor to use it. Though they apply different labels, other studies (Macaro, Rolin-Ianziti & Brownlie) refer to similar functions.

Many of these findings on L1 and L2 use are based on periodic observations in L2 and FL classrooms. By looking at one teacher/researcher’s L1 use over the course of an entire semester, the present study investigates the usage of the Arabic language in EFL reading comprehension.

Studies about how much teachers use L1 in the classroom have generated varied results. Macaro, examining six student teachers in England. He used interview in his study, found out a low percentage of L1 use in their teaching, ranging from 0% to 15.2%. The four teachers in the study by Rolin-Ianziti and Brownlie they used video recording for 13 teachers’ classes and questionnaire. They found out a low percentage of L1 in their teaching, with a cross-teacher average of 8.8%. Other researchers, however, reported considerable variations among individual teachers in their studies. For example, Duff and Polio illustrated that a group of 13 teachers, who taught different target languages to English-speaking students in an American university, differed dramatically in their use of English, ranging from 0% to 90%. lieu et al investigated 13 Korean teachers of English in high schools. They recorded material from 14 teachers’ classes, and found their use of Korean ranged from 10% to 90% of class time. Kim and Elder examined seven teachers who taught foreign languages in New Zealand. They used questionnaire in their study, and showed that the proportion of target language use among these teachers varied from 23% to 88%, indicating a high level of variation in the use of student L1.

The diversity concerning the quantification of teachers’ use of L1 may result from the different contexts and different approaches involved in these studies. While it is impossible to generalize, it seems reasonable to conclude that teachers can hardly avoid the use of L1 when they share it with their students, no matter in what contexts they teach.

Levine’s project examined university students’ level of anxiety in relation to the quantity of TL use. Using an Internet based questionnaire answered by 600 students and 163 instructors from the United States and Canada, this study compared student and instructor belief concerning the relation between TL use and student anxiety. Contrary to hypothesized outcomes, Macaro found that the amount of TL correlated negatively with students’ sense of anxiety and concluded that students reported
feeling less anxious when exposed to increased FL amounts than their teachers perceived them to be (Levine\textsuperscript{10}). A point of interest is that while 40\% of students agreed that they felt ‘anxious using FL ’ and 59.9\% of instructors predicted this anxiety, 63\% of both groups agreed or strongly agreed with the questionnaire item, ‘It is a rewarding or worthwhile challenge ’ to ‘have to use the FL to communicate (rather than fall back on English)’. Finally Chavez’s\textsuperscript{11} study explored the different functions that learners attribute to both the L1 and the TL in the language classroom, which she views as a ‘diglossic’ environment. She used questionnaire of 158 items to investigate the issue with students in first year language classes at the University of Wisconsin–Madison. The results indicated that students preferred the L1 to approach ‘the most pressing and genuine communicative purposes, such as matters related to evaluation and grammatical ‘knowledge’. In contrast, the students viewed the TL as appropriate to perform repetitive activities involving the practice of forms. The above studies on students’ views all highlight a number of contextual factors that may have an influence on their preferences for L1/TL distribution. Macaro\textsuperscript{6} notes a possible impact of teachers’ methods on students’ opinion on L1 exclusivity. Levine\textsuperscript{10} lists a number of student characteristics (age, gender) and classroom variables (instructor) that may have influenced students’ reported views on the relation between TL amount and anxiety. Chavez’s\textsuperscript{11} study carefully describes the institutional context (departmental policy regarding L1 use, teacher training, instructor status) and teaching approach (‘a communicative four skills curriculum’) indicating the importance of those contextual features for understanding student views. One could hypothesize that student experience of specific teaching methods or classroom practices is particularly important in shaping students’ views on L1/TL use. In summary, findings from studies of students’ views on L1 use indicate the following:

1-In a teaching context in which there is TL exclusivity, such as in the English context (Macaro\textsuperscript{6}), only a minority of able students accepted such exclusivity; the majority demonstrated negative reactions. Moreover, there was a consensus among students that ‘framework oriented interactions dealing with instructions should be performed in the L1.

2-No correlation has been found between increase in TL amount and anxiety.

3-Students share two main pedagogical functions to the L1: as medium of interaction associated with target language and management of the course.

4-A number of contextual factors such as teaching methods, instructors, and departmental policies are hypothesized to influence student views on L1/TL use. In fact, one question needs to be answered: what is the effect of using L1 on students learning performance? This study will provide an answer to this question, in particular to reading comprehension.

Tang\textsuperscript{12} studied the use of the L1 by Chinese teachers of English as well as their learners’ attitudes towards it. He used a questionnaire and an interview in his study, and the results showed that both teachers and learners responded positively to using the L1 as a supportive and facilitating teaching tool. Schweers\textsuperscript{13} investigated the attitudes towards using the L1 of teachers and learners in an EFL context where the L1 was Spanish. He used a questionnaire in his study and 35 recorded minutes from different level classes, this study also showed that the majority of the teachers and learners agreed that the L1 should be used sometimes. Another survey was conducted by Prodromou\textsuperscript{14}, with Greek Learners of English. He used a questionnaire in his study, and found that most beginner and intermediate learners, but only a minority of advanced learners, felt the use of the L1 in the English classroom was acceptable. Finally, a study conducted by Qoura\textsuperscript{15} examined Saudi Arabian teachers and learners
attitudes towards using Arabic in EFL classrooms. He used a questionnaire in his study, in line with earlier studies; the results showed that the majority of EFL teachers supported the use of the L1 in their classrooms, although the degree of support depended on the level of the learners.

On the whole, then, there is much evidence that teachers’ and learners’ attitudes to the use of the L1 in English lessons are positive. Zheng tried to answer the question: will it make a difference if reading comprehension questions are set in learners’ L1 instead of English L2? He used experiments in the study, it showed that setting questions in learners’ L1 or L2 will make no significant difference in learners’ reading comprehension if their competences in L1 and L2 are both sufficient for the task. Shohamy found that multiple-choice questions in L1 were easier than the same questions translated into L2. However, contrary to these studies, Chen et al found in their study the use of L1 or L2 as the index of comprehension of L2 texts did not make any significant difference in the students’ L2 reading performance. Jihad & Turki examined the role of the Arabic language in assessing reading comprehensions in the foreign language (English), he used experimental method. The results showed that the subjects who were tested in Arabic performed better than their counterparts who took the English test version. However, the advanced subjects in the two groups did equally well regardless of the test version they took. Al-Absei investigated the effect of incorporating Arabic in the teaching of English to Jordanian students. He used experiments in his study; the findings provided evidence favor of this method.

Siti & Hameed aimed to investigate the effectiveness of the use of L1 to generate ideas for second language writing among low proficiency ESL learners. They employed experimental research. The findings showed a marked improvement in the writing performance of students who used their first language to generate ideas before using their second language for writing. Wang has proposed that writers with differing L2 proficiency switch from L2 to their L1 during their writing process. In agreement with Wang, Woodall has stressed that less proficient L2 learners switched to their L1 more frequently than more advanced learners and that more difficult tasks increased the duration of L1 use in L2 writing. Wang & Wen discovered that less proficient writers rely on L1 when they were managing their writing process, generating and organizing ideas; L1 use decreased with the writers’ L2 development but the extent of the decline of the L1 use in individual activities varied.

Fatima & Goh attempted to provide insights into the extent of first language use while reading second language texts in a collaborative situation among tertiary ESL learners. They employed reading loud protocol. It was found that the L1 was used by all the students in the study and that more than 30% of the total instances of strategy use involved the L1. It also revealed various reasons for the students’ use of the L1 while reading L2 text particularly in context of group reading. One reason was that the L1 facilitated resolutions of word-related and ideas-related difficulties. Furthermore, using the L1 might have helped the students reduce affective barriers and gain more confidence in tackling the L2 texts. Another study by Kern found that L2 learners have been relied on translation in the process of comprehending L2 texts and that the degree of such reliance is related to the level of proficiency.

In conclusion, researchers have found out that evidence for the practice of English-only is neither conclusive, nor pedagogically sound. In fact it is often detrimental to the students and the learning process. The findings presented in this study indicate that the use of L1 in the classroom can be effective, and is perhaps necessary in
certain situations. “Although the mother tongue is not a suitable basis for a methodology, it has, at all levels, a variety of roles to play which are at present, consistently undervalued”, Atkinson\textsuperscript{27}.

Inspired by some previous researches and driven by my own interest, the researcher decided to carry out a similar study on the use of the native language in the Sudanese context. However, differences exist between those studies and this study. Firstly, in the above studies English was the official second language of the participants, while in this study English is a foreign language to the participants. Secondly, the participants in this research are secondary school students. This study is a form of empirical research where the findings could have a direct impact on the use of L1 in reading comprehension class.

**Methodology of the study**

**Sample of the study**

This experiment was conducted at al Shaheed Mahieldien Secondary School, in Khartoum. As it is known, all the students in Sudan enter secondary school, after spending four years studying English at basic school. All the students are aged 14-17 years old. They all speak Arabic as their first language; nearly all of them have studied English for 6 years at school. All the pupils who took part in the study were females.

The test used was similar to students test practiced on their text book and as Sudanese Secondary Certificate (see appendix). The test consists of true/false and multiple choice questions, such questions are good means to assess reading comprehension because they don’t require production, Nuttal\textsuperscript{28}. The students stay for three years at secondary school. There were 30 students per class and in addition to studying English they also studied Maths, History, Geography, Biology, and other subjects (all in Arabic).

Most of the teachers are experienced native Arabic speakers. Some have taught at the school for 10 years, while a few have joined recently. As the students live together, they spend a lot of time speaking Arabic, and have little or no exposure to English outside the classroom.

**Study experiment**

There were actually two classes in this study. The first one was the experimental group while the other one was the control group. They all studied English for the same amount of time, and used the same textbooks.

The pupils in the two groups were taught reading comprehension passages from their text book for two months. The main difference between the classes, in terms of how they studied, was that the researcher could use Arabic in English class. The researcher used Arabic to help explain things when they were not clear; to quickly clarify new vocabulary or phrases in the experimental group, while Arabic was not used at all in the control group. Both classes took a pre-test prior to the instruction program and a posttest after the program.

**Validity and Reliability of the instrument**

The tests are believed to have content validity as they aimed at assessing the students’ achievement in reading comprehension. The tasks required in the tests were comparable to those covered in the book and practiced in class. In addition, the test instructions were written clearly in English and the examinee’s task required was defined. Furthermore, the tests were validated by a group of experts who suggested some valuable remarks about the tests and the researcher responded to that. For the test reliability the study used the test-retest method: The test-retest method of estimating a test's reliability involves administering the test to the same group of
people at least twice. Then the first set of scores is correlated with the second set of scores. Correlations range between 0 (low reliability) and 1 (high reliability) (highly unlikely they will be negative!). The coefficient correlation formula was used to calculate the correlation:

\[ r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{\{n\Sigma x^2 - (\Sigma x)^2\} [n\Sigma y^2 - (\Sigma y)^2]}} \]

The results showed that there was strong positive correlation between the pre-test and post-test:
Pre-test: .878
Post-test: .757
Furthermore, to increase the validity and reliability of the test, the researcher gave two tests as pre-test and post-test at different interval of time. Taking more than one sample of students’ work, according to Weir29 “can help reduce the variation in performance that might occur from one task to task”. Thus, we decided to take at least two samples.

**Results and discussion**
The analysis of the experiment will focus on answering a vital question: To what extent does the usage of the Arabic language facilitate EFL reading comprehension? To answer this question, we computed the mean, standard deviation, standard error and ranges for the pre-test- and post-test scores of both experimental and control groups. To find out whether each group had made any progress as a direct result of instruction, within T-test group was computed for each group using the pre-test and post-test mean scores of each group.

Table 1 clearly shows that when the Arabic language in EFL was used within the experimental group, it scored higher than those in the control group on the post-test (mean = 69 and 61 respectively) with similar variations among students in the experimental and controls (SD = 20.92 and 20.20 respectively).

Since both the experimental and control groups were equal in size, no significant differences existed between the groups on basis of their pre-test mean scores previously at the beginning of the program. Results of the T-test in Table 2 shows that the mean scores of both control and experimental groups were (6.967) and (6.300) respectively, as shown in Table 2. Comparison of mean scores for the groups yielded a difference of (+0.667) between experiment and control. Further, the results of the T-test yielded significance at the .001 level (p<.001 *** ) meaning that the difference between the experiment and control scores were statistically significant. This suggests that a student reading comprehension within the experimental group improved significantly as a result of introducing the Arabic language.
Table 1. Distribution of Pre-test and Post-test Scores within the Experimental and Control Groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>SE of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>61.333</td>
<td>20.9241</td>
<td>3.5064</td>
</tr>
<tr>
<td>Post-test</td>
<td>69.667</td>
<td>20.9241</td>
<td>3.8202</td>
</tr>
<tr>
<td>Control group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>60.300</td>
<td>19.2055</td>
<td>2.6846</td>
</tr>
<tr>
<td>Post-test</td>
<td>61.000</td>
<td>20.2055</td>
<td>3.5064</td>
</tr>
</tbody>
</table>

Table 2. T-test comparing the results of the two groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t-observed</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>30</td>
<td>6.96</td>
<td>2.0924</td>
<td>.3820</td>
<td>18.236</td>
<td>29</td>
<td>.000</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>6.30</td>
<td>1.3170</td>
<td>.2404</td>
<td>26.201</td>
<td>29</td>
<td>.000</td>
</tr>
</tbody>
</table>

Through observations, we can state that the results within table 1 show that while all the classes improved, the results of the experimental group improved more than the control group. The control group’s improvement was not expected though, as the pupils studied intensely for a period of two months, and may have applied their own skills. Both groups show improvements but the experimental group showed a marked improvement with the highest scores when compared to the slight improvements achieved by the control group. These results clearly illustrate the strongest evidence we have found in experiment, and supports our original hypothesis: “The usage of the Arabic language facilitates EFL reading comprehension”.

Likewise, Siti&Hameed\(^{21}\) aimed to investigate the use of L1 to generate ideas for second language writing among low proficiency ESL learners. They employed experimental research. Their findings showed a marked improvement in writing performances of students who utilized their first language to generate ideas before using their second language for writing. Also, Fatima&Goh\(^{25}\) attempted to see the extent of first language usage while reading second language texts in a collaborative situation among tertiary ESL learners. It was discovered that the L1 was used by all the students in study and that more than 30% of the total instances of strategy usage involved inclusion of the L1. It also revealed various reasons for the students’ use of the L1 while reading L2 text particularly in context of group reading. One reason was that the L1 facilitated resolutions of word-related and ideas-related difficulties. It can be said that using the L1 might help the students reduce affective barriers and gain more confidence in tackling the L2 texts.
CONCLUSION
This study tried to find out whether the usage of L1 can facilitate the learning of EFL or not, especially in English reading comprehension. As hypothesized: The usage of Arabic language facilitates EFL reading comprehension. The results of this study showed that reading comprehension within the experimental group improved significantly as a result of introducing the Arabic language in the classroom.

REFERENCES:
14-Prodromou, L. (2002). From mother tongue to other tongue. Retrieved on August 20,2007 from


25-Goh Hock Seng & Fatima Hashim .(2006). Use of L1 in L2 reading comprehension among tertiary ESL learners.Reading in a Foiign Language.Vo.18,No.1,April 2006 ISSN 1539-0578


