

The Effect of Dictionary Type on Reading Performance in EFL Context The Case of Moroccan EFL High School Students

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Abstract: This study aims to examine the effect of dictionary type on reading achievement among Moroccan EFL high school students. Participants of the study were 120 randomly selected students with similar vocabulary level in three different high schools. The participants were divided into four groups; each group was required to read the same text and answer comprehension questions with the help of one of the following dictionaries: a) English-English dictionary; b) English-Arabic dictionary; c) English-French dictionary; d) English-English-Arabic dictionary. All the groups took the same reading comprehension test (the second year baccalaureate national examination 2014 devised for Science Stream students) in order to examine the differences among the groups' scores using one-way ANOVA and Tukey post hoc test. Results showed that there is a significant difference between dictionaries with Arabic translations and the others with English and French word equivalents. Both English-Arabic and English-English-Arabic dictionaries proved their effectiveness in reading comprehension.

Keywords: Dictionary type; Reading achievement; EFL context.

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I. Introduction

1.1 Rationale and Purpose of the Study

Dictionary use is undoubtedly helpful for EFL learners since it gives information, no matter how rich it is, about the target language vocabulary. According to the teaching experience of the researchers in different Moroccan high schools in different regions, dictionaries are predominantly associated with reading comprehension. Students use dictionaries while reading texts to understand unknown words and be able to appreciate meaning and answer comprehension questions. This claim is supported by Diab (2003, P. 330) who asserts that “[d]ictionaries were reported to have been used mainly in the contexts of reading English-language textbooks and basically for looking up semantic information, i.e. for decoding rather than encoding purposes.” Teachers and students might be concerned with the type of dictionary that helps most effectively in reading comprehension. This suggests a need to examine the effect of dictionary types that are frequently used by EFL Moroccan high school students on their reading achievement. The present study tries to fulfill this purpose and aims to serve as a starting point for subsequent similar studies in the Moroccan context.

1.2 Research Question

The study addresses the following research question:

- Which type of dictionary best helps Moroccan EFL high school students in reading comprehension?

1.3 Research Hypothesis

In order to answer the research question, the study tests the following null hypothesis:

- There is no significant relationship between dictionary type and reading performance in the Moroccan EFL context.

II. Literature Review

There exist many definitions and typologies of the dictionary just as there are many learning contexts/ purposes, domains, types of learners and the like. One definition which fits in the scope of this paper is provided by Schnoor (2003, P. 4) quoting (GIBALDI 8): “Dictionaries are alphabetically arranged works that provide information, usually in concise form, about words or topics”. Schnoor (2003, P. 4) states that the information associated with words in a dictionary vary from one dictionary to another. Some dictionaries provide just words' meaning; others give synonyms; others show pronunciation details; some others are

concerned with words' etymology. The context of this study suggests defining dictionary as an alphabetically ordered reference book which helps language learners understand reading texts. Such dictionaries are not uniform. Lew (2004, PP. 4-12) discussed three relevant types of dictionaries: Bilingual, monolingual, and semi-bilingual dictionaries. In simple terms, Benson (2004, P. 39) defines the first two types as follows: "a bilingual dictionary is one in which the words of one language are described using the words of another. A monolingual dictionary is one in which the words of a language are described using the words of the same language." Lew (2004, P.12) claims that Semi-bilingual dictionaries (also termed *hybrid or bilingualized*) came into existence as an alternative to monolingual and bilingual dictionaries. Lew states that this type of dictionaries explains word meaning by means of both the target language definitions and learners' native language equivalents.

No one can deny the substantial importance of dictionary in EFL context. Learners need it to build up enough vocabulary to be used in different language skills be it receptive or productive. However, the question to be considered is: which type of dictionary best serves learners especially in reading comprehension. The following table lists some studies which tried to answer the question.

Researcher(s)	Study description	Findings	Source
Bensoussan, Sim and Weiss (1984)	<ul style="list-style-type: none"> a careful methodology, with three independent studies at two institutions. a very large sample (around 1500 subjects overall) In one of the three studies, subjects had control over their choice of dictionary. in the other two studies, there was random assignment of dictionaries 	No effect of dictionary use on comprehension test scores.	Lew (2004, P. 25)
Nesi and Meara (1991) ;Nesi (2000b)	Replications of the previous study	No effect of dictionary use on comprehension test scores.	Lew (2004, P. 25)
Neubach and Cohen (1988)	Not mentioned	Dictionaries — either monolingual or bilingual — did not appear to be of any help to users on reading comprehension tasks.	Lew (2004, P. 25)
J. Davis (1989).	<ul style="list-style-type: none"> 71 undergraduate students (native speakers of English) read a French literary text of 936 words. The students were randomly divided into three groups, having: (a) no aids, (b) questions and comments to guide the reading and vocabulary definitions before starting reading, and (c) questions, comments and vocabulary glosses during reading. All students wrote a recall protocol (in English) after reading in order to measure for reading comprehension. 	<ul style="list-style-type: none"> Students with help recalled significantly more than the students without help. However, no difference could be established between the group that was given help beforehand and the group that was helped during the reading activity. 	De Ridder (2003, P. 52)
Hosenfeld (1977)	Not mentioned.	<ul style="list-style-type: none"> Looking up words may simply destroy the fluency of the reading process because reading becomes sheer word by word decoding and the overall meaning is missed. Reading comprehension strategies need to be developed before using dictionaries 	Tono (2001, P. 30)

Table1: Previous studies about the effect of the dictionary on reading comprehension.

Findings of the studies listed in table 1 show that there is no clear relationship between dictionary use and/or type and achievement in reading comprehension. This gives importance to the present study which attempts to reveal the relationship between dictionary type and reading performance in the Moroccan EFL context using a different design; different instruments, procedures and statistical analyses.

III. Method

3.1 Participants

The participants of the study were randomly selected using simple random sampling technique (SRS) in three high schools where the researchers work. The enumeration and selection of the respondents were conducted with the help of the high school headmasters and principals. Table 2 below gives details about the number and distribution of the participants:

School	Number of participants		
	Female	Male	Total
Ibn Sina high school - Sebaa Aioun	19	21	40
Lounasda high school- Kelaâ Seraghna	22	18	40
Ibn Toumert high school - Marrakech	25	15	40
Total	66	54	120

Table 2: The distribution of participants according to school and gender.

The selected participants were assumed to be at the same level especially in terms of vocabulary size. In order to control this variable, all the participants were kindly requested to take Nation’s updated version of vocabulary level test (VLT) being informed that their scores will remain confidential and used only for research purposes. The researchers collected the tests and scored them with the help of two colleagues in each school. The results showed that the testees scored very low at the 1,000-word level. Generally, they achieved only 9% ranging from no correct answer (0%) to 19%. This implies that the participants have a very poor mental lexicon and do surely need a dictionary to understand a text above their level. The participants were divided into four groups (30 students in each group; 10 from each school). Members of each group were given a type of dictionary.

3.2 Instruments

The study used two main instruments to collect relevant data: 1) dictionaries 2) a reading comprehension test.

1) Table 3 below lists the dictionaries which were given to each group.

Type	Dictionaries	
	Name	Group assigned to
Monolingual	<i>Oxford Learner's Pocket Dictionary</i>	Group 1
Bilingual	<i>Oxford Arabic Dictionary</i>	Group 2
Bilingual	<i>Oxford Pocket French Dictionary English-French</i>	Group 3
Semi-bilingual	<i>Oxford Wordpower English-English-Arabic</i>	Group 4

Table 3: Types and names of dictionaries assigned to each group.

Oxford Learner's Pocket Dictionary contains words, phrases, idioms, phrasal verbs and even some grammar patterns. This dictionary provides students with the meanings of English words and sometimes with a context sentence only in English.

Oxford Arabic Dictionary is, in fact, a two-way bilingual dictionary. It contains words and phrases with their possible translations. It presents example sentences and equivalents of idioms in the source language.

Oxford Pocket French Dictionary: English-French presents English words with their French translations. It also highlights some English grammar points in French.

Oxford Wordpower: English-English-Arabic is a *bilingualized* dictionary. It provides words with their meanings and context sentences in English and then gives each word its equivalents according to the specific context in which it appears.

2) The reading comprehension test is taken from the baccalaureate national examination 2014 devised for ScienceStream. The reason behind the selection of the baccalaureate exam is that it is obviously challenging for the participants, hence the use of the dictionary is necessary, and this will make measuring its effect on reading comprehension practically feasible. Furthermore, all Moroccan EFL high school students might have divergent purposes behind studying English, but their shared objective is surely to pass the English national baccalaureate examination in which reading comprehension is a major part.

3.3 Procedure for Data Collection and Analysis

Before taking part in the study, all the participants were trained according to their groups in a one-hour session on how to use the dictionary for reading comprehension purposes. Each group used the dictionary it was assigned. With the help of three colleagues in each school, the participants were invited to take the reading comprehension test at the school free time. (Friday afternoon at Ibn Sina and Lounasda high schools; Saturday afternoon at Ibn Toumert high school). There were four classrooms available for the four groups in each school. 45 minutes is the time given to students to complete the test. The participants were reminded that their participation is extremely important and that their scores and personal information will be kept confidential.

After collecting the exam sheets and thanking the participants for their time and effort, each researcher with the help of the colleagues, who helped in the invigilation process, carefully corrected the papers following the marking scale accompanying the national examination. The mark was out of 15. Subsequently, the collected data were entered into the free online version of SPSS software to generate the necessary results and analyses.

IV. Results and Discussion

Table 4 below presents the most important descriptive statistics related to the groups/dictionaries and their corresponding scores. The group which used the English-English dictionary scored very low (M= 3.3000; SD= 1.74494) with marks ranging between 1.00 and 7.00. Students who used the English-French dictionary had the same mean, with a slightly different standard deviation and marks ranging from 1.00 to 6.00 (M= 3.3000; SD= 1.82228). Participants who used the English-Arabic dictionary scored fairly above the average (M= 11.3000; SD= 1.85974). Their marks range between 8.00 and 14.00. Students with the semi-bilingual dictionary had the highest score and their marks ranged between 9.00 and 15.00 (M= 12.4667; SD= 1.71672). The overall mean is roughly around the average (M= 7.5917). The standard deviation is very high (SD= 4.67515) because the marks are widely scattered ranging between 1.00 and 15. These descriptive statistics show that there seem to be no differences between using English-English or English-French dictionaries, but there might be some differences between these dictionaries and the other two ones.

Descriptives

Scores

	N	Mean	Std. Deviation	Minimum	Maximum
English-English	30	3.3000	1.74494	1.00	7.00
English-Arabic	30	11.3000	1.85974	8.00	14.00
English-French	30	3.3000	1.82228	1.00	6.00
English-English-Arabic	30	12.4667	1.71672	9.00	15.00
Total	120	7.5917	4.67515	1.00	15.00

Table 4: Descriptive statistics for dictionary type and reading test scores.

Table 5 below shows the results of Leven’s test of homogeneity of variance. This allows for testing the null hypothesis that the variance across groups is equal. In this case, P= .922 and so the assumption of homogeneity is met and therefore there is no need to consult other robust tests of equality of means (Welch; Brown-Forsythe).

Test of Homogeneity of Variances

Scores

Levene Statistic	df1	df2	Sig.
.162	3	116	.922

Table 5: Test of homogeneity of variance among the four groups.

The ANOVA test as shown in table 6 shows that there is a highly significant difference between the four types of dictionaries in relation to their corresponding scores (P= .000)

ANOVA

Scores

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2230.625	3	743.542	232.880	.000
Within Groups	370.367	116	3.193		
Total	2600.992	119			

Table 6: Analysis of variance among the four groups.

The ANOVA test provides the overall degree of significant difference with respect to the four groups. However, it does not tell the extent to which the difference between each two group is statistically significant. The Tukey post hoc test displayed in table 7 does the job. It provides multiple comparisons and shows that the group of students with the monolingual dictionary is statistically very different from that which employed the semi-bilingual and English-Arabic dictionaries ($P= .000$). Conversely, there is no statistically significant difference between groups which utilized English-English or English-French dictionaries ($P= 1.000$). The same is observed for groups which used English-Arabic and English-English-Arabic dictionaries the P value indicates that there is no statistically significant difference between the two groups ($P= .061$).

Multiple Comparisons

Dependent Variable: Scores
Tukey HSD

(I) Dictionary type	(J) Dictionary type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
English-English	English-Arabic	-8.00000*	.46136	.000	-9.2026	-6.7974
	English-French	.00000	.46136	1.000	-1.2026	1.2026
	English-English-Arabic	-9.16667*	.46136	.000	-10.3693	-7.9641
English-Arabic	English-English	8.00000*	.46136	.000	6.7974	9.2026
	English-French	8.00000*	.46136	.000	6.7974	9.2026
	English-English-Arabic	-1.16667	.46136	.061	-2.3693	.0359
English-French	English-English	.00000	.46136	1.000	-1.2026	1.2026
	English-Arabic	-8.00000*	.46136	.000	-9.2026	-6.7974
	English-English-Arabic	-9.16667*	.46136	.000	-10.3693	-7.9641
English-English-Arabic	English-English	9.16667*	.46136	.000	7.9641	10.3693
	English-Arabic	1.16667	.46136	.061	-.0359	2.3693
	English-French	9.16667*	.46136	.000	7.9641	10.3693

*. The mean difference is significant at the 0.05 level.

Table 7: Tukey post hoc test for differences among the four groups

In a nutshell, the results showed that the monolingual dictionary did not help the students in understanding the text and in answering the comprehension question. This is quite expected given the low vocabulary level of respondents. Moreover, Explaining unknown vocabulary by means of other unknown words complicates the task for students. The same applies to the English-French dictionary. Students who used this type of dictionary failed to fully understand the text. One possible explanation for this is that the respondents' French vocabulary level is also weak and so explaining English words in French is like using a monolingual dictionary. Contrarywise, students who used dictionaries with Arabic translations, be it semi-bilingual or bilingual, revealed considerable understanding of the text and had higher scores answering comprehension questions. This might indicate that students comprehend texts when explaining unknown words in the language they know better (Arabic in this case).

Going back to the research question and hypothesis, we assert that English-Arabic and English-English-Arabic dictionaries best help Moroccan EFL high school students in reading comprehension. The null hypothesis is also rejected since there is a statistically significant difference between these two dictionaries and the others.

V. Conclusion and Recommendations

The use of dictionaries with Arabic translations showed their effectiveness in reading comprehension, at least in the context of this study. However, as Lew (2004) suggests, the results might significantly change as students' proficiency level vary. Advanced students, for instance, might not need a dictionary of any type to comprehend a text. The study would have yield different results had it used a text with idioms and frozen expressions whose understanding goes beyond the dictionary explanation.

This study suggests that relying on students' mother tongue or a language they master can be very helpful in understanding the target texts and building up vocabulary especially at the initial stages of learning the target language. Therefore, this article would seriously challenge some seemingly accepted ideas about the use of dictionaries in EFL contexts among Moroccan teachers of English who seem to give priority to monolingual dictionaries. These ideas, as Wingate (2002, P. 26) states, are based on "pedagogical intuitions rather than on empirical evidence". Therefore, one important implication of the present study would be an invitation for teachers to check their taken-for-granted assumptions not only concerning the use of dictionaries but also with respect to other aspects of language teaching and learning.

Teachers would do well if they give some importance to dictionary use inside the classroom and train their students on how to use it effectively. They are also well-recommended to test the effectiveness of different dictionary types across language skills and guide their students accordingly.

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