

Type of Task and Type of Dictionary in Incidental Vocabulary Acquisition

Mojtaba Maghsoudi

Mysore University

Abstract

In this study the effect of form-oriented comprehension and form-oriented production tasks on incidental vocabulary acquisition in respect of using either monolingual or bilingual dictionaries and also considering gender and bilinguality of the subjects was investigated. To meet the aim, 161 Iranian EFL university students were invited to read a text including twelve unknown target words and complete the above-mentioned tasks. The subjects were informed that they are allowed to consult the pre-assigned dictionaries in order to look up the meaning of the target items. The result of the immediate and delayed vocabulary tests revealed that subjects using monolingual dictionaries (English to English) yielded better results in retention of the words irrespective of gender and bilinguality of the subjects.

Key terms: Incidental words, Retention, bilinguality and gender

Abstracto

En este estudio se investiga el efecto de la comprensión orientada a las formas y las encomiendas de producción orientadas a las formas con respecto a los diccionarios monolingües y bilingües. Se mantuvo en consideración el género y el bilingüismo de los sujetos que fueron investigados. Para llegar a nuestro objetivo, invitamos a 161 estudiantes universitarios iraníes que estudian inglés como lengua extranjera (también conocido por EFL, por sus siglas en inglés) a leer

un texto que incluye doce palabras desconocidas y un ejercicio de comprensión. Se les permitió a los sujetos consultar unos diccionarios asignados para obtener los significados de las palabras. Los resultados de las pruebas que medían vocabulario inmediato y retrasado revelaron que los sujetos que consultaron los diccionarios monolingües de inglés obtuvieron mejores resultados en la retención de las palabras independientemente de su género o bilingüismo.

Palabras claves: *Palabras incidentales; retención, bilingüismo y género*

Mojtaba Maghsoudi is a Ph.D. candidate of TEFL at Mysore University, India. He has published articles in the area of TEFL and the impact of bilingualism on additional language acquisition. His research interests lie in Second Language Teaching and Learning and bilingualism as well as the strategic reading behaviors of ESL learners.

Background

Effective acquisition of second language vocabulary is particularly important for learners of English as a foreign language who frequently acquire impoverished lexicons despite years of formal study (Hunt & Beglar, 2005).

In the early stages of instructed foreign language acquisition, students mainly learn a few thousand high frequency words. Such words occur so frequently in the teaching materials to which they are exposed that many are easily acquired. However, a vocabulary of a size, say 2,000 words, is inadequate for functional language proficiency. To take reading as an example, estimates of the number of words required for understanding specialized texts vary but there is general consensus that 5,000 base words is a minimal requirement (Laufer, 1997; Nation 1990) while for non-specialized, academic reading a wider range of vocabulary is considered necessary (Groot, 1994;

Hazenberg & Hulstijn, 1996). Incidental acquisition of these words is only possible to a point, because they do not occur often enough in the foreign language learning material. There is no doubt that virtually all second language learners and their teachers are well aware of the fact that learning a second language (L2) involves the learning of large numbers of words (Avila & Sadoski, 1996; Laufer & Hulstijn, 2001), but how to accomplish this task is often of great concern to them. How vocabulary is acquired and what are the most efficient means to promote effective acquisition have been worthwhile lines of unease in the field of second language acquisition (De La Fuente, 2002, p. 82). In sum, they all place emphasis on the fact that mastery of vocabulary is an essential component of second language acquisition.

Most researches to date underline high correlations between measures of reading comprehension and vocabulary knowledge and indicate that gains in one relate to gains in the other (Beck, McKeown & Omanson, 1987). Reading is seen as the major vehicle for vocabulary acquisition and related L2 research confirms that introducing a reading “flood” where learners are motivated and focused on meaning leads to measurable gains in vocabulary knowledge. A good deal vocabulary learning through reading is apparently “incidental”, in the sense, that normally there is neither instructional manipulation nor an intention to learn words on the part of the learner (Elley & Mangubhai, 1983; Karshen, 1989 cited in Wesche and et. al., 1999).

Incidental and Intentional Vocabulary Acquisition

In spite of the difficulties of guessing from context, people do manage to learn vocabulary in both their native and foreign languages. The question that arises at this

point, then, is how does this process take place? One view is that learning can be divided into incidental learning and intentional learning. Intentional vocabulary acquisition is memorizing straightforwardly term after term with their respective translations from a list. Learning is quick and therefore usually preferred by learners, but it is also superficial. Learners encounter vocabulary in an isolated, often infinitive form and remain incapable of using it correctly in context. Moreover, intentionally learned vocabulary sinks faster into oblivion. Didactically recommendable vocabulary acquisition exposes learners comprehensively to every term, embedding it deeply and solidly in the mental lexicon.

Incidental vocabulary acquisition, through contextual deduction in target language reading, meets these recommendations. Learners encounter terms together with syntactic information, which helps using the accurate words in an idiomatic way, repeatedly under different aspects and hence engrains in the learners' minds.

Nation defines learning from context as:

“...the incidental learning of vocabulary from reading or listening to normal language use while the main focus of the learners' attention is on the message of the text. Learning from context thus includes learning from extensive reading, learning from taking part in conversations, and learning from listening. Learning from context does not include deliberately learning words and their definitions or translations even if these words are presented in isolated sentence contexts” (Nation, 2001, pp. 232-33).

Type of dictionary: Bilingual or monolingual?

There are three types of dictionaries: bilingual, monolingual, and bilingualized, and these can be found in either paper or electronic form. Both bilingual and monolingual dictionaries have their unique strengths and weaknesses for developing vocabulary knowledge.

Hunt and Beglar, (2005) believe that apart from short and easy-to-understand definitions of bilingual dictionaries, the strengths of them are:

- a) they can improve the reading comprehension of lower proficiency L2 learners;
- b) they assist vocabulary learning at all levels of proficiency;
- c) they encourage translation, and
- d) they foster one-to-one precise correspondence at word level between two languages.

In contrast, monolingual learner dictionaries can be used to build and elaborate learner's vocabulary knowledge using up-to-date and reliable sentence examples drawn from corpus data that provide information about meaning, grammar. Generally, the monolingual entry can also provide more detailed and precise information about idiomatic usage, common collocations and connotations.

Since a combination of good features of both types of dictionaries is not impossible, there is considerable interest in the new *bilingualized compromise dictionaries*. A bilingualized entry typically includes: L2 definitions, L2 sentences information and L1 synonyms of the headword. These combination type dictionaries essentially provide translations, in addition to, the good features of monolingual dictionaries.

Using bilingualized dictionaries is more efficient than using separate bilingual and monolingual dictionaries. They are more flexible. Beginning and intermediate learners can rely on the L1 translation and advanced learners can concentrate more on L2 part of the entry (Gu, 2003; Hunt & Beglar, 2005; Laufer & Hadar, 1997).

Researchers are interested in investigating the role dictionaries play in the learning of second or foreign language vocabulary. The lively debate amongst language teachers has always been whether dictionaries should be used in the foreign language classroom, and if at all, what type of dictionaries should be used. Presently, there is a common view that EFL teachers should discourage students from consulting dictionaries because students' extensive dictionary use can lead to word for word reading (Chin, 1999, p. 3).

Some EFL teachers discourage use of both monolingual and bilingual dictionaries in the belief that dictionaries do not help students to understand vocabulary in context and because students overuse dictionaries at the expense of developing the ability to guess from context and self-confidence, while others advocate only using the target language and are concerned that bilingual dictionaries used for word for word translations will adversely affect student comprehension at the sentence and discourse level.

In the words of Chun and Plass, (1996) and Lyman-Hager and Davis, (1996), one of the most common word-focused activities used during reading is consulting a gloss or a dictionary. To facilitate comprehension learners use glosses and dictionaries, but their use can contribute to small increments in vocabulary learning as well. For example, Luppescu and Day (1993) found that students using a dictionary during reading gained higher scores on a post-test than those who did not.

The study

Aim

The aim of the present study is to explore the impact of bilingual and monolingual dictionaries on the retention of unfamiliar words irrespective of type of tasks, which is *message-oriented* and *form-oriented* tasks. The other purposes of the current study are to characterize the interaction between gender and bilinguality of the subjects and retention of unknown words. The present researcher's objectives are therefore to find out whether different kinds of dictionaries affect incidental vocabulary acquisition and if it does, to explain which one associates with positive consequences in retention of unfamiliar words.

Subjects

The researcher used non-probability sample designs (Cohen 1998) to select the student population for this study. More specifically, "quota sampling," which is the non-probability equivalent of stratified sampling (Nachmias & Nachmias, 1981) was used. In order to ensure representativeness of the sample, in relation to the population, student's field of study was used as an important criterion for sampling.

The subjects were 161 Iranian EFL university students, selected from a pool of over 300 hundred students in T.T.C (teacher training center), public and Payamnoor universities. The potential moderator variables such as age and gender were controlled. The subjects were both male and female and their ages ranged from 22 to 28 years. They were all undergraduates majoring in English Language course.

It is worth noting that of the original cohort, the data from twenty-three subjects were excluded for being absent for the delayed post-test. The final sample size was 138. The participants were finally categorized into two groups: Group A (87 male/female monolinguals), who were able to use just Persian as a home or outside language. Group B (74 male/female bilinguals) who used Turkish and Persian as first and second language respectively. Subjects were randomly assigned to use either monolingual or bilingual dictionaries

Materials

Reading passage. The researcher did his best to ensure that the reading passage was of an appropriate level of difficulty with a lexical density that would allow general comprehension but encourage the participants to use the dictionary sources provided to help them fully understand the text. Having administered the text used in Hill and Laufer's research (2003) as a pilot test, the researcher was made certain of its appropriate level and suitability.

As the aim of the present study was to stimulate vocabulary retention following the use of dictionary resources, careful consideration was given to the length and density of unknown vocabulary in the text. Hu and Nation (2000) suggest that the learner may reach an adequate comprehension level of a text at a density of 98% familiar vocabulary, but that in intensive reading of short passages, less than 95% coverage may be suitable for developing language and the use of reading strategies. The text used in the present study, therefore included 91% of words, which I assumed was familiar to the learners. This density was regarded as being an appropriate level to enable the learners to be sufficiently challenged so as to want to use the dictionary resources.

Target words. The text contained twelve words, including four nouns, four adjectives and four verbs, all of which were unlikely to be familiar to the subjects. This was verified in a pilot test in which fourteen students of a similar English proficiency who did not participate in the experiment were asked to underline any words in the passage whose meaning they did not know. The twelve target words were the only words that were underlined. They were: *indigenous, arduous, boisterous, stunning, affability, dusk, itinerary, remuneration, resurrects, toiling, squander* and *saunter*.

Tasks. The researcher introduced two tasks. Each task drew the subjects' attention to attend to each of the twelve target words in a different manner. The researcher encouraged the subjects to clear any doubt in completion of tasks, therefore, the learners were provided with needed information for completion the tasks.

In task 1, the learners had to select the meaning of underlined words from four options, which are high frequency words. Example 1 illustrates this task:

1- In line 3 arduous means.....

a) kind b)strict c) hard d) observable

As it is obvious in this task, attention is drawn to the word itself, rather than to the context surrounding it. Hence, this task is called a *form-oriented task*.

In task 2, a synonym or paraphrase of the practiced word was provided and the learners had to select its corresponding word form from four options, which consisted of the correct target word and three distracters selected from the twelve target words. This task is called a *form-oriented production* task.

Example 2 illustrate this task:

2- Which word means to waste?

- a) *itinerary* b) *arduous* c) *saunter* d) *squander*

Research Questions

The following research questions were addressed in this study:

1. Do learners acquire different numbers of words using monolingual or bilingual dictionaries?
 - a) as reflected in the result of an immediate test, and
 - b) as reflected in the result of a delayed test?

2. Is there differential gain for mono and bilinguals after intervention in immediate and delayed post-tests?

3. Is there differential gain for male and female subjects after intervention in immediate and delayed post-tests?

Procedure

In the process of carrying out the study, the investigator took the following procedures to achieve the objectives of the current study. All the procedures including the development of the background questionnaire, pre-test, reading for general meaning, task performance, immediate post-test, delayed post-test and their administration are explained in detail below:

At the first step of the research, a background questionnaire was developed in order to elicit some personal information about participants such as: their bi / monolinguality status, gender and age.

On the basis of their answers to item 6 in the questionnaire, the subjects were first divided into two groups, viz., a) monolingual: if a subject was able to use just Persian in communication whether at home or outside, he/she was classified as a monolingual; and, b) bilingual: if a subject was able to use either Turkish (as first language) or Persian (as second language) in communication he /she was classified as a bilingual. Then the pre-test was administered in which twelve words were listed in alphabetical order and participants were asked to give the meanings of any words they knew in English or Persian. At the third step, a text in which the target words have been inserted in bold font was given to the subjects to read so as to understand the general meaning. After a couple of minutes the subjects being randomly assigned to the use of either bilingual or monolingual dictionaries, were asked to complete the respective tasks. It may be worth mentioning that the subjects were informed that in case of any difficulties with the meanings of the target words, they were requested to consult provided dictionaries in order to retain the meanings in their minds. The subjects were prohibited to write the meaning of the target words while they completed the tasks, since the aim of the present study was to test retention of incidental words when using mono or bilingual dictionaries. As it was mentioned some where else in the present study, subjects were randomly assigned to use either monolingual or bilingual dictionaries.

Once the tasks were completed, the subjects were unexpectedly to give the meaning of each word either in English or Persian in so-called immediate post-test.

Hence incidental acquisition of vocabulary is operationalized in the study as the ability to recall the word's meaning in L1 or L2. The above test was repeated 10 days later without any warning in order to check the retention of the words in so-called delayed post-test.

Data analysis

Having collected all data from the pre-tests, immediate and delayed post-tests, SPSS for Windows (version 14-evaluation version) has been employed for calculation of the impact of type of dictionaries use, gender and bilinguality on retention of incidental words.

As aforementioned, the main aim of this study was to recognize how many of these twelve target words would be retained by the subjects. Therefore, a score of 0 was given for an incorrect or not attempted answer and a score of 1 was given for a correct answer. Spelling and minor grammatical errors were disregarded as the main purpose was the ability to recall the meaning of the word.

Having administered the pre-test, those subjects who knew more than two target words were excluded. Therefore, in case of encountering subjects who knew two words were adjusted accordingly by converting their scores out of 10 (instead of 12) to a percentage grade. The immediate and delayed post-tests provided data on incidental learning of the target words. The maximum raw score on each of the tests was 12, if all twelve words had been retained.

Results

The first research question:

1. Do learners acquire different numbers of words using monolingual or bilingual dictionaries?

a) as reflected in the result of an immediate test, and

b) as reflected in the result of a delayed test?

Before subjecting the data to repeated measure ANOVA, to establish matching and randomization group, independent samples 't' test was employed to see whether two groups differ from each other. 't' test revealed a non-significant value ('t' = .158; P < .876), confirming matching of groups in the pre-test situation.

A significant increase in the mean scores was observed from pre to immediate post-test situations (F=206.620) and a decrease from immediate post to delayed post-test conditions was observed irrespective of the groups. That is, in pre-test the mean score was 0.56, which was increased to 10.26 in the immediate post-test and later decreased to 6.74. However, when group-wise changes were verified, again differential changes were observed for 'English to Persian' and 'English to English' groups, which was statistically significant (F=6.129; P < .004). From the mean values it is evident that in 'English to Persian' group, in the pre test the mean score was 0.58, which was increased to 10.83 in the immediate post-test and later decreased to 5.83. In the case of 'English to English' group, in the pre test the mean score was 0.53, which was increased to 10.15 in the immediate post-test and later decreased to 7.47. From the table 1 and figure it is clear that retention was better in 'English to English' group than 'English to Persian' one.

Table 1

Mean scores of mono and bilingual subjects in different groups for pre, immediate post and delayed post-tests

GROUPS	LINGUALITY	Conditions					
		Pre		Immediate Post		Delayed post	
		Mean	S.D	Mean	S.D	Mean	S.D
E to P	Mono	0.50	0.58	10.75	1.26	3.25	1.50
	Bi	0.63	0.74	10.88	1.36	7.13	2.90
	Total	0.58	0.67	10.83	1.27	5.83	3.10
E to E	Mono	0.67	1.12	9.89	2.80	7.56	3.64
	Bi	0.33	0.52	9.67	2.73	7.33	2.80
	Total	0.53	0.92	9.80	2.68	7.47	3.23
Total	Mono	0.62	0.96	10.15	2.41	6.23	3.70
	Bi	0.50	0.65	10.36	2.06	7.21	2.75
	Total	0.56	0.80	10.26	2.19	6.74	3.22

E to P = English to Persian

E to E=English to English

Table 2

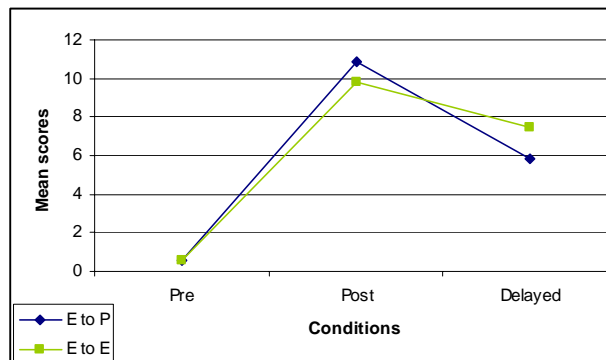
Results of repeated measure ANOVA for Mean scores of mono and bilingual subjects in different groups for pre, immediate post and delayed post-tests

Source of variation	Sum of Squares	df	Mean Square	F	Sig.
CHANGE	1181.660	2	590.830	206.620	.000 (HS)
CHANGE * GROUP	35.050	2	17.525	6.129	.004 (HS)
CHANGE * LINGUALITY	14.800	2	7.400	2.588	.086 (NS)
CHANGE * GROUP * LINGUALITY	13.949	2	6.974	2.439	.098 (NS)
Error (CHANGE)	131.537	46	2.860		

Note: HS-Highly significant; NS-Non-significant

Figure 1

Mean scores of subjects in different groups for pre, immediate post and delayed post-tests



The second research question:

2. Is there differential gain for mono and bilinguals after intervention in immediate and delayed post-tests?

The interaction effects between change of scores with linguality (mono and bilinguals) ($F=2.588$; $P<.086$) and change with respect to groups and linguality ($F=2.439$; $P<.098$) were found to be non-significant, revealing that linguality had no influence.

The third research question

3. Is there differential gain for male and female subjects after intervention in immediate and delayed post-tests?

As far as the influence of gender is considered, a non-significant F value was observed ($F=2.642$; $P<.082$) indicating that gender did not have influence over change in the scores from pre to immediate to delayed post-tests. In other words, the change from pre to immediate post to delayed post-tests was similar for male and female subjects. Finally, the interaction effect between change with group and gender was also found to be non-significant ($F=0.641$; $P<.531$ see table 4).

Table 3

Mean scores of male and female subjects in different groups for pre, immediate post and delayed post-tests

GROUPS	Gender	Conditions					
		Pre		Immediate Post		Delayed post	
		Mean	S.D	Mean	S.D	Mean	S.D
E to P	Male	0.80	0.84	11.60	0.55	7.80	3.11
	Female	0.43	0.53	10.29	1.38	4.43	2.37
	Total	0.58	0.67	10.83	1.27	5.83	3.10
E to E	Male	1.17	1.17	10.00	2.19	8.67	2.80
	Female	0.11	0.33	9.67	3.08	6.67	3.39
	Total	0.53	0.92	9.80	2.68	7.47	3.23
Total	Male	1.00	1.00	10.73	1.79	8.27	2.83
	Female	0.25	0.45	9.94	2.43	5.69	3.11
	Total	0.56	0.80	10.26	2.19	6.74	3.22

Table 4

Results of repeated measure ANOVA for Mean scores of mono and bilingual subjects in different groups for pre, immediate post and delayed post-tests:

Source of variation	Sum of Squares	df	Mean Square	F	Sig.
CHANGE	1261.132	2	630.566	210.481	.000 (HS)
CHANGE * GROUP	23.000	2	11.500	3.839	.029 (HS)
CHANGE * Gender	15.830	2	7.915	2.642	.082 (NS)
CHANGE * GROUP * Gender	3.840	2	1.920	0.641	.531 (NS)
Error (CHANGE)	137.808	46	2.996		

Note: HS-Highly significant; NS-Non-significant

Conclusion

In this article, the researcher examined incidental vocabulary acquisition from reading a text and performing two tasks, which required some focus on unfamiliar words in the text (Acquisition was defined as recall of the word's meaning). It was the purpose of this study to find out whether completion task type in respect of using different kinds of dictionaries affected incidental vocabulary acquisition or not. Specifically, the researcher compared bilingual and monolingual learners with different genders. In each task, learners had to look up unfamiliar target words either in bilingual or monolingual dictionaries. The subjects were randomly assigned to use either bilingual or monolingual dictionaries. The finding of this research indicated that completion of the form-oriented comprehension and form-oriented production tasks through using bilingual or

monolingual dictionaries led to some vocabulary learning. As is indicated, a significant increase in the mean scores from pre to immediate and post-tests and a decrease from immediate post to delayed post-tests was observed, meaning that those subjects who were assigned to use a monolingual dictionary had better retention of incidental vocabulary. This finding is not new. It is similar to the findings of other studies, which showed that learners, who read a text and perform a task which require some operations on the new words, including looking up the words in a dictionary, would consequently remember of some of these words. The results of this study support Laufer and Hulstijn's (2001), Hill and Laufer's (2003) and Diab and Hamdan's (1999) findings.

As far as the influence of gender and bilinguality was considered, it was revealed that gender and bilinguality had no t significant influence over retention of the incidental vocabulary. The result of this hypothesis supports the findings of some other researchers such as: Lambert and Tucker (1972) and Barik and Swain (1978) examined the performance of large 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 a grammatical point 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" (p.221). Magiste (1984) reported an investigation by Balke-Aurell and Lindbad (1982) on the differences between monolingual and bilingual immigrants of various first languages 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.

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