results indicated that neither dictionary type nor word type was effective in vocabulary production. In other words, the differences between monolingual and bilingual dictionaries in the learning of concrete and abstract words were not significant. Based on the descriptive statistics of the production test, the bilingual group had a better performance in the learning of concrete words and a poorer performance in the learning of abstract words than the monolingual group. Although the difference between the monolingual group and the bilingual group was considerable, it was not high enough to be statistically significant. Further research may be needed in this area to shed light on the issues raised in this study.

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As it can be seen, there is no significant difference between the effects of the two types of dictionary on the production of vocabulary. There is also no significant difference in the production of concrete and abstract words. Therefore, it can be concluded that word type (concrete and abstract) is not an effective factor in the production of vocabulary. Nor is the interaction of the two factors (dictionary type and word type) significant. In short, this study failed to find enough evidence to support the existence of any meaningful relationship between dictionary type, word type and vocabulary production. Although the monolingual group had a better performance in the production of abstract words, the difference was not statistically significant.

As to the recognition of concrete and abstract words, the results showed that dictionary type had a role in vocabulary learning, and that the bilingual dictionary group had a better performance than the monolingual dictionary group on the vocabulary recognition test

The better performance of the monolingual group participants in the production of abstract words may be partially attributable to the fact that monolingual dictionaries provide sufficient contexts in their definitions, which help students to produce new vocabulary items in similar contexts. These findings are in accordance with

Baxter's (1980) view, claiming that a monolingual dictionary not only explains definitions but also provides the means to employ definitions.

These' results are also in accordance with Laufer's and Hadar's (1997) report that the use of a monolingual dictionary helps the learner to better understand the sentences or collocational phrases. This study also supports Piotrowski's (1987) argument that concrete nouns are the most difficult words to describe in a monolingual dictionary and the easiest in a bilingual dictionary.

bilingual
1 adj able to speak two languages e you learnt both of them as a young chil
➤ Monolingual teachers cannot help bi
➤ You don't have to be fully bilingual t a second language.
COLLOCATES pupil, learner, child
➤ Teachers need to be alive to

Conclusion

The findings of the present study can be summarized as follows:

As to the recognition of concrete and abstract words, the results showed that dictionary type had a role in vocabulary learning, and that the bilingual dictionary group had a better performance than the monolingual dictionary group on the vocabulary recognition test. Although the monolingual group had a better performance on the comprehension of abstract words and the bilingual group on the comprehension of concrete words, the difference was not statistically significant. It may also be concluded that word type had no effect on the comprehension of new words.

As to vocabulary production, the

and abstract words. To see whether or not the differences among the groups were statistically significant, a two-way ANOVA test was utilized. The results of the ANOVA test are presented in Table 2.

A glance at Table 2 makes it clear that dictionary type has a statistically significant effect on vocabulary recognition. In other words, the students who used bilingual dictionary have achieved results significantly better than the students who used the monolingual dictionary. However, word type did not significantly influence vocabulary recognition. Moreover, the interaction effect of dictionary type and word type is not statistically significant.

Table 2. Results of the two-way ANOVA for vocabulary recognition

Source	Mean Square	Df	F	Sig.
Dictionary Type	323.408	1	11.403	.001
Word Type	.008	1	.000	.986
Interaction Dictionary * Word	21.675	1	.764	.384

These findings can be partially accounted for by the fact that the students who use bilingual dictionaries feel certain about getting the accurate meaning of new words because their definitions are usually short and easy to understand. This is congruent with the findings of Beglar and Hunt (2005). These results also support Hayati's and Fattahzade's (2006) findings, based on which, the learners who used a bilingual dictionary, got word meanings quicker than those who used a monolingual dictionary.

The second research question sought to investigate the effect of monolingual and bilingual dictionaries on the production of concrete and abstract words. To this end, another two-way ANOVA test was run. Table 3 contains the summary of the descriptive statistics.

Table 3. Descriptive statistics of the vocabulary production test

Dictionary Type	word type	Mean	Std. Deviation	N
Monolingual	Concrete	17.63	6.39	30
	Abstract	20.23	5.34	30
	Total	18.93	5.98	60
Bilingual	Concrete	18.50	5.92	30
	Abstract	18.60	5.65	30
	Total	18.55	5.74	60

Based on Table 3, the students in the bilingual group got higher scores than the monolingual group members in the production of concrete words. The mean score of the monolingual group in the production of abstract words is better than the production of concrete words and even better than the production of abstract words of the bilingual group. To see whether or not the differences among the groups are statistically significant, another two-way ANOVA procedure was run, the results of which are presented in Table 4.

Table 4. Results of the two-way ANOVA on vocabulary production

Source	Mean Square	Df	F	Sig.
Dictionary Type	4.408	1	.129	.720
Word Type	54.675	1	1.602	.208
Interaction Dictionary * Word	46.875	1	1.373	.244

for the purpose of gauging vocabulary recognition. Another concrete word test (30 items) along with an abstract word test (30 items) in fill-in-the-blank format was used to measure vocabulary production.

It is worth mentioning that since the posttests were constructed based on the words that had been taught during the treatment, they already had content validity. Still, to have a numerical index of validity, a correlational procedure was used to validate them. Due to the low proficiency level of the participants, the vocabulary subtest of the *Preliminary English Test (PET)*, was administered as the criterion. The correlation coefficients obtained between the PET test and the concrete and abstract selection tests and concrete and abstract production tests turned out to be 0.65, 0.87, 0.76, and 0.79, respectively. The reliability of the tests was also estimated through the KR-21 formula. The obtained indices for the tests in the above-mentioned sequence were 0.81, 0.85, 0.79 and 0.89, respectively.

Procedures

The participants were given a 150-word pretest, both concrete and abstract, to find out whether or not the target words were familiar. Results indicated that 30 words out of 150 were known to some of the participants. These words were not included in the posttests. The remaining vocabulary items were gradually presented to each group as a 10-week treatment. The monolingual group was taught the new words by using the monolingual dictionary. The monolingual group got the meaning and definition of all words in English throughout the

experiment. The bilingual group was taught the same words using the bilingual dictionary. The definition and the meaning of all words were given in Persian. At the end of the experimental period, the students in the two groups were given the four posttests with the afore-mentioned characteristics. The obtained data were then summarized and subjected to statistical analyses.

Data Analysis

Having collected the required data, two separate two-way ANOVA procedures were utilized; one for analyzing the results of the recognition tests and the second one for analyzing the results of the production tests.

Results and discussion

The first research question sought to investigate the effect of monolingual and bilingual dictionaries on the recognition of concrete and abstract vocabulary. To analyse the obtained data, a two-way ANOVA test was run. Table 1 contains the summary of the descriptive statistics.

Table 1. Descriptive statistics of the selection test

Dictionary Type	word type	Mean	Sd.	N
Monolingual	Concrete	21.17	6.17	30
	Abstract	22	6.06	30
	Total	21.58	6.08	60
Bilingual	Concrete	25.30	4.19	30
	Abstract	24.43	4.57	30
	Total	24.87	4.37	60

Based on Table 1, students in the bilingual group have obtained better scores in the recognition of both concrete

dictionaries because they bring instant satisfaction, while teachers prefer monolingual dictionaries for their long-term benefit: the user gradually learns to operate in L2 without the L1 barrier as a brake on progress" (Atkins, 1985, p. 22).

According to Piotrowski (1987), concrete nouns are the most difficult words to describe in a monolingual dictionary and the easiest in a bilingual dictionary. He adds that we can divide words into first-order words (concrete words and names of persons), second-order and third-order words. The second and third order words are composed of words that help to make the structure of words and connect them to get the correct meaning. Accordingly, the bilingual dictionary is based on first-order words, while the monolingual dictionary is based on second and third-order words.

According to Clark (2003), concrete words should be easier to ground in the sensorimotor world. This means that word definitions might be easier to ground using concrete words. He concludes that although the definitions of concrete words are shorter and more direct, abstract words are more widely used in grounding definitions.

The paucity of research in the area of the effect of dictionary use on vocabulary comprehension and production, coupled with the mixed findings of the few studies conducted, as well as the relative dearth of studies on the effect of dictionary type on the perception and recall of concrete and abstract lexical items warrant the present study, which intends to investigate the effect of monolingual and bilingual dictionaries on the comprehension and production of concrete and abstract words.

Method
Participants

A sample of 60 participants was selected for the present study. They were all male third-year public high school students in Abhar city, whose age ranged from 16 to 18. The participants were randomly assigned to two equal groups (N=30): the monolingual group (MG) and the bilingual group (BG).

Materials and Instruments

The materials and instruments used in this study consisted of the following:

Two types of dictionary were given to the participants. The Oxford *Elementary Learner's Dictionary* was presented to the monolingual group. The bilingual group was provided with *Farhang Moaser English-Persian dictionary*.

A multiple-choice vocabulary test consisting of 150 concrete and abstract words (with equal proportion) was constructed and administered as the pretest to see if the words were new to the participants.

Four posttests were also administered to the groups separately. They included one concrete word test (30 items) and one abstract word test (30 items) in multiple-choice format. They were used

both bilingual and monolingual dictionaries have their strengths and weaknesses. Hulstijn, Hollander, and Greidonus (1996) state that the strengths of bilingual dictionaries are that learners value them and that they can improve the reading comprehension of lower

Knight (1994) argues that a bilingual dictionary may be more likely to help lower proficiency learners in reading comprehension because their lack of vocabulary can be a significant factor in their inability to read

proficiency L2 learners. Moreover, their definitions are usually short and easy to understand (Beglar & Hunt, 2005). On the other hand, in spite of the good quality of some comprehensive bilingual dictionaries, they provide little information in their entries and their reliance is strongly on one-to-one word translation (Tang, 1997). Summer (1988) argues that perhaps the most serious disadvantage of bilingual dictionaries is that they can develop in many learners a somewhat native view of the target language. Ducroquet (1994) claims that very few translation problems can be solved by the help of bilingual dictionaries.

As to the monolingual learner's dictionaries, Harvey and Yuil (1997) confirm that they can be used to build vocabulary knowledge by using suitable sentences which provide information about meaning, grammar and usage as well as spoken and written vocabulary

items, collocations and associations. The major weakness of monolingual dictionaries is that learners must know 2000 words or more to understand definitions (Nation, 1989).

Aust, Kelly, and Roby (1993) hold that contrary to EFL students, most EFL teachers prefer their students to use the monolingual dictionary. One of the reasons for this preference is that there is a cultural misconception that there is a one-to-one correspondence between the words of the two languages. Another reason for the preference, according to Walz (1990), is that learners mainly use a monolingual dictionary because a bilingual dictionary does not show the exact meaning distinctions of equivalent translations.

Atkins (1985) believes that "monolingual dictionaries are good for you like whole meal bread and green vegetables; bilinguals like alcohol, sugar and fatty food are not, though you may like them better" (p. 22). Despite this, monolingual dictionary users may not be able to fully understand the definitions due to the lack of knowledge of the words used in the definitions, while the bilingual dictionary satisfies the learners' instant translation needs. Hayati and Fattahzade (2006) argue that for immediate recall purposes, bilingual dictionaries are more effective, and for retention purposes, four weeks or more, monolingual dictionaries are preferred.

According to Summer (1995), using a monolingual dictionary demands more effort from the user, and since increased processing of a word may result in improved retention, this could be a strong point for language learning.

In short, "students like bilingual

their inability to read. Battenburg (1989) found that at advanced levels, the use of bilingual and monolingual dictionaries decreased, and native speaker dictionary use increased. It was also found that while all participants preferred to look up definitions the most and etymological information the least, there were significant differences in the search patterns across different proficiency levels (cited in Ryu, 2006, p. 5).

Studies on vocabulary learning strategies have been indicative of the popularity of dictionary strategies, especially the use of bilingual dictionaries

Dictionary type may influence vocabulary comprehension and production. Huang (1985) points out that for comprehension, all EFL dictionaries provide word by word definitions and some even use controlled or limited words as metalanguage for definition. Laufer (1993) believes that for productive purposes, general learner's dictionaries may not provide enough information on specific expressions to prevent learners' errors.

Monolingual dictionaries are mainly for receptive purposes rather than productive ones; in terms of the productive use of monolingual dictionaries, learners mainly use them to find the correct spelling of words or to correct potential mistakes. On the other hand, according to Hayati and Pour-mohammadi (2005), the use of a monolingual dictionary during reading reinforces comprehension but is less effective than a bilingual dictionary. Bejoint and Moulin (1987) contend that

bilingual dictionaries are a good choice for quick consultation, while monolingual dictionaries have the merit of openly introducing the user to the lexical system of the L2. The monolingual entry can generally provide more detailed and precise information about a word than the bilingual entry - such as information about idiomatic usage, common collocations, connotations and register (Laufer & Hadar, 1997).

Underhill (1985) proposes that many high frequency words may be given appropriate treatment in monolingual dictionaries. Baxter (1980) also believes that more encouragement should be given to the use of monolingual dictionaries because they help learners by offering definitions in context. In contrast, bilingual dictionaries provide learners with word by word translation equivalents that may not be appropriate in the discourse. On the contrary, Thompson (1987) believes that all the information in a monolingual dictionary can also be given in a bilingual dictionary.

Based on what was said, it seems that
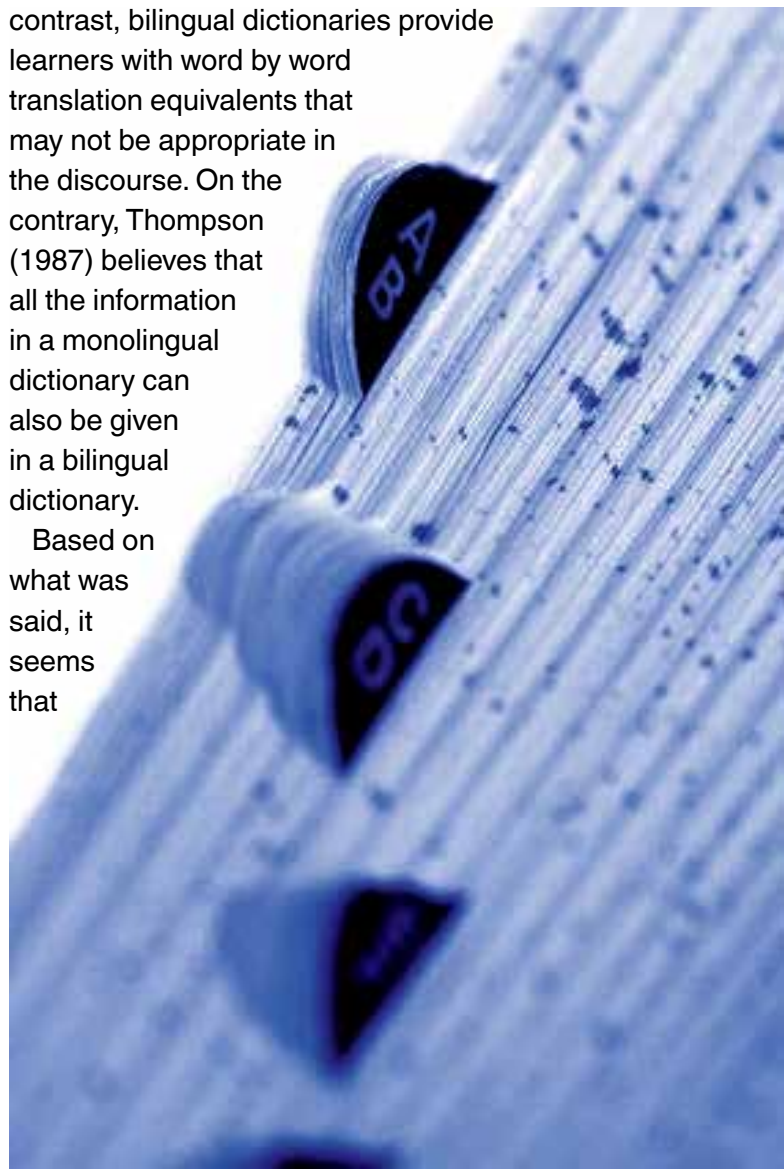
p. 1), "The first type of a contemporary dictionary was *Hornby's Advanced Learner's Dictionary* published by Oxford University Press (1948)".

Dictionaries can be used for different purposes. Nation (2001, p. 281) distinguishes among three major purposes for dictionary use including comprehension (decoding), production (encoding), and learning. Taylor (1988) studied the dictionary use of 122 students and found that 50% of the students used a bilingual dictionary and that their choice was affected by the school. It was also found that the most frequent use was 'looking up grammatical information'.

As to the effectiveness of dictionaries, Hulstijn, Hollander and Greidanus (1996) report that if learners use a dictionary when they come across unknown words, their scores will be higher than those who do not use it. In another study conducted by Luppescu and Day (1993), dictionary use was found to have a significant effect on learners' ability in word-to-word vocabulary definition test. At the same time, there are also arguments against dictionary use in vocabulary learning. Bensoussan (1983) argues that students need to be able to select the right meaning of a word according to the context of a passage to answer a test question correctly. But as Knight (1994) contends, the availability of a dictionary does not guarantee that a dictionary user can fully understand the meaning of unknown words without sufficient contextual clues.

Studies on vocabulary learning strategies have been indicative of the popularity of dictionary strategies, especially the use of bilingual dictionaries (Laufer & Hill, 2000). Hulstijn's (1993) experiments showed that there was no significant difference in the English vocabulary knowledge of the students who looked up many words as opposed to the ones who did not. Luppescu and Day (1993), on the other hand, found that the use of a bilingual dictionary considerably improved students' performance in vocabulary tests. In addition, Gu and Johnson's (1996) study showed a positive correlation between the use of dictionary and vocabulary size.

It seems that the learners' level of proficiency has effects on dictionary use and the choice of dictionary type. Bensoussan (1983) and Laufer and Hadar (1997) conducted a study with EFL learners and found that dictionaries were more useful for students with a moderate level of proficiency than students with very high proficiency level. Knight (1994) argues that a bilingual dictionary may be more likely to help lower proficiency learners in reading comprehension because their lack of vocabulary can be a significant factor in

Introduction

There is little doubt that dictionary is among the most indispensable instruments of vocabulary learning, without which the story of vocabulary learning is hardly worth telling. What is less certain is how different learners make use of different kinds of dictionary for various purposes. In fact, controversy as to what kind of dictionary to use has long been at the core of vocabulary teaching and learning activities. Yet, in spite of the importance of dictionaries for EFL learners, little research on dictionary use has been conducted in Iran. Specifically, studies which consider the effect of monolingual and bilingual dictionaries on the comprehension and production of specific word types, such as abstract and concrete words, are scarce. The purpose of the present study, therefore, was to investigate the effect of monolingual and bilingual dictionaries on Iranian high school students' recognition and production of abstract and concrete words.

It attempted to answer the following research questions:

1) Is there a significant difference between the effects of monolingual and bilingual dictionaries on the recognition of concrete and abstract words?

2) Is there a significant difference between the effects of monolingual and bilingual dictionaries on the production of concrete and abstract words?

Review of related literature

The history of dictionaries and their use in language teaching has had its own share of twists and turns. According to Cowie (1983), the first English dictionary, *the Table Alphabetical* in 1604, was the first English learner's dictionary. Noah Webster in 1828, published his *American Dictionary of the English Language*. While the history of the monolingual English dictionary for native speakers goes back to the 17th century, the first point in building EFL monolingual dictionaries as Stein (1985, p. 10) puts it, was in Japan where, in1930s, Palmer and Hornby "made plans to publish a dictionary entitled the *Idiomatic and Syntactic English Dictionary*." According to Zgusta (1988,

The Effect of Dictionary Type on the Recognition and Recall of Concrete and Abstract L2 Vocabulary

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چکیده

پژوهش حاضر با هدف بررسی تأثیر نوع فرهنگ واژگانی (تک زبانه و دو زبانه) بر درک و تولید واژگان ذات و معنی زبان انگلیسی توسط دانش آموزان ایرانی مقطع دبیرستان انجام شد. به همین منظور تعداد ۶۰ نفر دانش آموز دبیرستانی در شهرستان ابهر مورد بررسی قرار گرفتند. پس از اینکه افراد به طور تصادفی در دو گروه قرار داده شدند، ۱۲۰ واژه ذات و معنی به دو صورت مختلف (یک گروه با استفاده از فرهنگ تک زبانه و گروه دیگر با فرهنگ دو زبانه) به آنها ارائه شد. برای بررسی داده ها از دو فرایند آماری تجزیه و تحلیل واریانس دوطرفه استفاده شد. نتایج نشان داد که فرهنگ دو زبانه در تولید واژگانی مؤثرتر از فرهنگ تک زبانه است و نوع واژه در درک آن تأثیری ندارد. همچنین، نوع واژه و نوع فرهنگ هیچ یک اثر معنی داری بر تولید واژگانی ندارد.

کلیدواژه ها: فرهنگ تک زبانه، فرهنگ دو زبانه، واژگان ذات، واژگان معنی ، درک واژگانی ، تولید واژگانی

Abstract

This study was conducted to investigate the effect of monolingual and bilingual dictionaries on the recognition and recall of abstract and concrete words by Iranian high school students. To this end, a sample of 60 high school students in Abhar city participated in the study. They were randomly assigned to two groups and were presented with 120 new concrete and abstract vocabulary items; one group used only a monolingual dictionary and the other only a bilingual dictionary. Two separate two-way ANOVA tests were run to study the effect of such dictionaries on the participants' lexical recognition and recall. Results indicated that the bilingual dictionary group had a better performance than the monolingual dictionary group in the vocabulary recognition test, but word type had no effect on the comprehension of new words. Results also indicated that neither dictionary type nor word type was effective in vocabulary production.

Key Words: monolingual dictionaries, bilingual dictionaries, concrete words, abstract words, vocabulary comprehension, vocabulary production