

# Learner Dictionaries versus Regular Dictionaries: Is there a difference?

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## 学習者用英英辞書と一般英英辞書相違はあるのか

スティーブ コーンウェル

### Abstract

This study started with a casual conversation in a hallway at school. One teacher said he did not believe learners' dictionaries were any more helpful than regular dictionaries. Since we strongly urge students at Osaka Jogakuin Junior College (OJJC) to buy an English-English learners' dictionary, whether or not dictionary type affects ease-of-use is of interest to the English program. Although there have been studies comparing learner's dictionaries (Bogaard, 1996), studying what we know about students' use of learner dictionaries (Kernerman, 1996), and examining pedagogical dictionary use in writing (Harvey and Yuill, 1997), the effectiveness of learner dictionaries versus regular dictionaries has not been compared in-depth. This study is an attempt to address the question of effectiveness. It will try to find out if dictionary type has any effect on usability. The specific questions are 1) Do students understand words looked up in a learners' dictionary better than those looked up in a regular dictionary? 2) Does proficiency affect a student's ability to use dictionaries?

**Key words:** learner dictionaries, University Word List, threshold effect, effectiveness  
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### 抄 録

この研究はある教師との雑談から始まった。彼は、学習者用英英辞書が一般英語辞書より学生の役に立っているとは思えない、と言う。大阪女学院短期大学では学生に学習者用英英辞書を購入することを強く勧めている。辞書の種類が使いやすさにどのように影響しているかは本学の教育課程にとって重要な問題である。複数の学習者用英英辞書を比較した研究 (Bogaard, 1996) 学習者の学習者用英英辞書使用の実態 (Kernerman, 1996) またライティングにおける学習者用英英辞書の教育的利用 (Harvey and Yuill, 1997) というような研究はすでに発表されているが、学習者用辞書と一般辞書の有効性についての詳しい比較研究はなされていない。この研究では有効性の問題を次の観点から論じる。

- 1) 学生は学習者用英英辞書を使用したほうが一般辞書より単語をよく理解できるか。
- 2) 英語力が辞書を使う能力に影響するのか。

**キーワード:** 学習者用英英辞書、大学英単語リスト、スレショウルド効果、有効性  
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This study started with a casual conversation in a hallway at school. One teacher told the researcher that he did not believe learners' dictionaries were any more helpful than regular dictionaries. I, on the other hand, felt that they must be easier for students to use since the definitions are written using simple, high frequency words. Since we strongly urge students at Osaka Jogakuin Junior College (OJJC) to buy an English-English learners' dictionary<sup>1</sup>, whether or not dictionary type affects ease-of-use is of interest to the English program at OJJC. This study is an attempt to find out if dictionary type has any effect on usability.

Although there have been studies comparing learner's dictionaries (Bogaard, 1996), studying what we know about students' use of learner dictionaries (Kernerman, 1996), and examining pedagogical dictionary use in writing (Harvey and Yuill, 1997), the effectiveness of learner dictionaries versus regular dictionaries has not been compared in depth.

### **Purpose of Study**

This study was designed to find out if students found learner's dictionaries easier to use than regular dictionaries. For the purpose of this study a learner dictionary is defined as an English-English dictionary that uses a limited set of high frequency words in its definitions. It is specifically designed for beginners and intermediate learners of English. A regular dictionary is an English-English dictionary that is used by native speakers of English.

The specific questions were 1) Do students understand words looked up in a learners' dictionary better than those looked up in a regular dictionary? 2) Does proficiency affect a student's ability to use dictionaries? In other words do low level learners have trouble with both types of dictionaries while advanced learners find both types easy to use? Do learner dictionaries really only benefit intermediate learners?

### **Subjects**

All the participants were students at Osaka Jogakuin Junior College. There were 37 first year students and 16 second year students making a total of 53. Scores on an in-house placement test designed to measure students' proficiency ranged from 44 to 146. Students volunteered for the study; in exchange for their participation they received a coupon for a cake set in the schools' cafe.

The majority of students volunteered from one of two groups: students attending an explanation meeting for a study abroad trip to Australia and members of a cheerleading club. While the researcher does not feel that these groups affected the

results of this study, group membership should be kept in mind when trying to apply findings to other groups.

## **Materials**

In order to test students' ability to use a dictionary to understand a word's meaning, it was felt that the study should use words students did not already know. Therefore, a pre-study pilot was conducted to select words for this study. From prior work on vocabulary the researcher felt students would not be familiar with words from the university word list (UWL). According to Bauman, the UWL is a list of vocabulary items common in academic texts. It is composed of 808 words, divided into 11 levels. This list is designed to be a list of specialized vocabulary for students who know about 2,000 generally common words and plan to study in an English-language college or university. (1999)

Advanced students were asked whether or not they knew the meaning of UWL words selected from a vocabulary test. They were asked to put a circle next to words they knew; to put an x next to words they didn't know; and to put a triangle next to words they were not sure of.

Students were asked to write the kanji next to the words they knew. It was hoped that this, plus the option of putting a triangle next to words they weren't sure of, would make sure students did not just put circles next to all the words indiscriminately. Appendix One shows the list along with the students' responses. This study's questionnaire was made from words that all or almost all of the students said they did not know. The only other requisite was that the word appear in both dictionaries.

In addition to words the students did not know, the researcher added two words that all students knew to the list. These words, "adult" and "minimum", were added to check that students did their best on the questionnaire. It was hypothesized that most students should be able to define these words with little difficulty regardless of proficiency level, and this was found to be the case.

This study used the Longman Dictionary of American English and The American Heritage Dictionary, third edition. The Longman dictionary was chosen because the researcher had a copy, had used it with students before and felt it was a representative learners' dictionary. The American Heritage was used because the teacher mentioned earlier who was skeptical about learner dictionaries' benefits had a copy and used it with his students. All of the words chosen were looked up in both dictionaries and those pages were reproduced in a "mini-dictionary" booklet.

The words used in this study were listed in alphabetical order along with a

sentence to provides some context. Since the learner's dictionary provided sample sentences for most words, it was decided to use those sentences as the samples. When a sample sentences was not provided in the dictionary, the researcher wrote one. See Appendix two for a copy of this study's questionnaire.

## Procedure

As students volunteered they were randomly assigned to one of the two groups. They were given a copy of the dictionary booklet designed for their group and a copy of the questionnaire. The instructions on the questionnaire were to look up the words using the booklet and write what the word means in Japanese using kanji if at all possible. An example was provided as were sample sentences for each word. Thirty minutes were allocated to fill out the questionnaire and all students were able to do so within the allotted time.

## Analysis

Before working with the students' completed questionnaires, a native-speaker of Japanese read the words on the questionnaire (adult, affluence, anomaly, equilibrium, intimacy, minimum, and prestige) and created what can be called an answer key of possible answers. For example, for the word, adult, the following words were pre-selected as possible correct answers: *otona*, *seijin*. Then as the researcher and the Japanese native-speaker informant went through all the questionnaires, students' answers were put into one of two lists: words accepted as correct or words judged to be incorrect. For example, continuing to look at the word "adult," *seinensha*, was added to the list of words accepted as correct, but *wakaimono*, was put on the list of words judged to be incorrect.

Lists of words accepted as correct and words judged to be incorrect appear in Table one and two. A second native speaker of Japanese helped check the lists and provide English glosses for the words judged to be incorrect.

After coding and entering the results of the questionnaires in a spread sheet, each word's item facility and item discrimination were calculated. Item facility is a statistical index that tells what percentage of students answered a question correctly. It can be used to determine which questions are too easy and which are too hard. Item discrimination shows how well a question separates students who do well from students who do poorly. This study used Item Facility and Item Discrimination to see if there were any questions that were not differentiating between easy to use and hard to use dictionaries. Items that range from .30 to .70 are considered acceptable for IF; .30 to .39 are reasonably good items for ID, with .40 and up considered very

**Table 1: Words accepted as correct**

adult	大人	成人	成年者
affluence	豊富 裕福 経済力 余裕	財産 豊かさ 経済的 裕富 (mistake in Japanese) 裕福 this is what they probably wanted	富裕 富 豊か
anomaly	変則 例外 異種	異例 特異	異常 異質なことに
equilibrium	安定 平均 バランス(をくずす)	均衡 平行感覚 平行 wrong kanji, right meaning	精神の安定 重心
intimacy	親密さ 近い 親友	親交 仲良し	親しい 友情
minimum	最小限度 限度	最低限 限度額	最小数量 限界
prestige	名声 栄誉 高水準 尊敬視	威信 名誉 勝る	評判の高い 權威 尊敬

good items (Brown, 1996). Using both, we can tell which questions are both effective and discriminative. The IFs and IDs for words in this study are in Table 3. It must be noted that while item facility and item discrimination provide information on individual questions' efficiency, the entire questionnaire's reliability could probably be improved by adding additional items.

Next, a 2 x 3 between-subjects Analysis of Variance (ANOVA) was run on SPSS. The dependent variable was scores on the dictionary questionnaire and the factors were dictionary type with two levels, learner and regular, and placement test ranking with three levels, advanced, intermediate, low. Advanced and low placement test ranking was determined by going one standard deviation on either side of the mean. (Only the participants' means were used.) Descriptive statistics for the dependent variable are as follows: mean = 4.11; standard deviation = 1.42; minimum = 0.00; maximum = 7.0. The results of the ANOVA are in Table 4.

In looking at the IFs for this study, we see that affluence (.69), equilibrium (.60), intimacy (.31), and prestige (.47) all fall within the acceptable range for IFs. Adult (.91) and Minimum (.87) are too easy as almost everyone is defining them in Japanese

**Table 2: Words Judged to Be Incorrect**

adult	若いもの youth		
affluence	良質 high quality 慰安旅行 company trip	貯蓄 savings 進上心 mistake in Japanese	影響 influence
anomaly	不気味 spooky 雑種 mongrel 特殊 special 例外 exception	奇形 deformed 普通 normal 特製 specially made 不完全 imperfect	おかしい strange 変達 change 奇妙 odd
equilibrium	正気 sane 判断力 ability to judge	感覚 perception  calm (unusual Japanese?)	平常心 calm 平静心
intimacy	独自 unique 暗に innuendo 孤立 isolation 家庭的 family oriented	孤独 loneliness 重要視 think s.t. is important 交流 interact 個人的提案 present a personal idea	閉鎖的 closed 必要な necessary 無関係 no relationship
minimum	上限 maximum	許可 permission	中間 medium
prestige	賞賛 praise 信用 trust 価値 value  絶滅 extinct	誇り pride 好評 well accepted 偏差値 school ranking/ standard deviation 頂点 pinnacle	絶賛 praise 尊厳 dignity 威厳 dignity  功績 achievement

correctly. This is not surprising since we hypothesized that they should be easy for both high and low proficiency learners and for learners using either regular or learner dictionaries. However, another word, anomaly (.18) had a very low IF. This word was difficult for almost everyone.

The IDs tell us a different story. Affluence, anomaly, equilibrium, and intimacy all fit in the range for very good items. Prestige (.26) is a little low; it would be

**Table 3: IF and IDs for words in this study**

	Item Facility	IF Upper	IF Lower	Item Discrimination
Adult	.91	.94	.79	.15
Affluence	.69	.90	.32	.58
Anomaly	.18	.42	.00	.42
Equilibrium	.60	.95	.21	.74
Intimacy	.31	.58	.16	.42
Minimum	.87	.90	.79	.11
Prestige	.47	.63	.37	.26

**Table 4: Analysis of Variance**

Tasts of Significance for SCORE using UNIQUE sums of squares

Source of Variation	SS	DF	MS	F	Sig of F
WITHIN + RESIDUAL	86.81	47	1.85		
DICT	.31	1	.31	.17	.683
PLACE3	4.15	2	2.08	1.12	.333
DICT BY PLACE3	11.91	2	5.96	3.23	.049
(Model)	15.99	5	3.20	1.73	.146
(Total)	102.79	52	1.98		
R-Squared =	.156				
Adjusted R-Squared =	.066				
Results					

considered a marginal item according to Brown (1996). The reason why the above information is important is that it appears that “adult” and “minimum” are having very little effect on the dictionary scores and therefore are not helping answer the research questions. “Anomaly” is another word that is having little effect on dictionary scores; almost no one is able to correctly define it regardless of dictionary type.

It appears that out of the 7 words on the questionnaire, only 4 are having any influence on the scores and therefore the research questions. In the future, additional words need to be piloted and added to the questionnaire. Affluence, equilibrium, intimacy, and prestige can continue to be used.

The ANOVA shows no significant difference in scores based on dictionary types  $F(1, 52) = .17, p > .683$ ) nor any significant difference based on proficiency level  $F(2, 52) = 1.12, p > .333$ . However, there was an interaction between dictionary type and proficiency level  $F(2, 52) = 3.23, p < .049$ . Unfortunately, by the time that students were separated into advanced, intermediate, and low proficiency levels, the number in each cell was unbalanced. See Table 5. Tabachnick and Fidell point out that in factorial designs “unequal sample sizes in each cell can cause difficulty in computation and ambiguity of results” (1996, p. 48) and can increase the probability of Type

**Table 5: Frequency and Means for Dictionary by Placement Score**

Placement Scores	Dictionary Type			
	Learner		Regular	
	Mean	Frequency	Mean	Frequency
Low	2.67	3	4.25	4
Intermediate	4.38	21	4.19	16
Advanced	5.33	3	3.33	6

I errors (a Type I error is rejecting the null hypothesis when you should retain it). Therefore, while we do see that there is a significant difference between dictionary types when placement scores are taken into account, we do not know where the difference is.

It is interesting to note that low learners scored lower using the learner dictionary than when they used the regular dictionary. This is the opposite of what we thought would happen. Intermediate learners scored about the same regardless of dictionary type and advanced learners scored better using the learner dictionary.

Student's mistakes ranged from simply using a wrong word, to using characters that were not Japanese (i.e. making up their own), to writing the right reading with the wrong kanji, to writing the Japanese for a word that sounded like the original word (influence for affluence).

### Conclusion

There are three changes that should be done before trying to administer the questionnaire again. One is to add more words with appropriate IFs and IDs; trying to find an effect when only four words are "working" is difficult. The second is to both balance and increase the numbers in each cell. Working with an advanced class and a lower level class might enable the study to have cells of fifteen each in all groups: advanced regular, advanced learner, low regular, and low learner. The third and final change is when determining advanced and low placement test ranking for the ANOVA, the one standard deviation above and below the mean should be calculated on the scores of the entire population (all OJJC students), not just the study's participants' scores.

In closing let's return to the research questions. The original questions were:

- 1) Do students understand words looked up in a learners' dictionary better than those looked up in a regular dictionary? and
- 2) Does proficiency affect a student's ability to use dictionaries?

Although the study's design is good, its results are ambiguous. When looking at



dictionary type alone, there does not seem to be any effect. Students use regular dictionaries as proficiently as learner dictionaries. Proficiency does seem to affect a student's ability, but rather than assisting intermediate students as was hypothesized, advanced students seem to benefit the most from learners dictionaries. The uneven cell size and small number in each cell make it difficult to interpret the significant difference that has been found. Additional research is necessary making the changes described above.

Note: The author would like to thank Akiko Katayama and Ms. Yamaki for help in working with the kanji and writing the English glosses.

Appendix One: Making the word list

Name:

Put a circle m next to the words you are sure you know. Put a triangle Δ next to the words you think you might know but are not sure about. Put an X × next to the words that you don't know.

	Know	Don't know	Not sure
absorb	12	2	3
adult	17	0	0
affluence	0	14	3
anomaly	0	16	1
assume	9	4	4
attain	5	9	3
configuration	0	17	0*
deficiency	1	13	3
digaram	0	15	2**
doctrine	3	11	3
equilibrium	0	17	0
evaluate	15	1	1
expose	8	4	5
inherent	2	10	5
intimacy	1	14	2
minimum	17	0	0
philosophy	15	0	2
prestige	0	15	2
publish	17	0	0
rely	15	0	2
restrict	8	3	6
section	17	0	0
sex	17	0	0
subsequent	1	10	6
transform	4	3	10
trend	12	0	5
vision	14	0	3

\*This word did not appear in both dictionaries, so it could not be chosen.

\*\*This word was misspelled on the form, so its results could not be trusted nor used.

**Appendix Two: Dictionary Questionnaire**

Name: \_\_\_\_\_ Discussion or TS I Class: \_\_\_\_\_

Number: \_\_\_\_\_

**Instructions:** Look up the following words using the handout you have received. In the square write the word in Japanese, using kanji if possible. If you don't know the word in Japanese, circle I don't know. An example is provided. A sample sentence is provided for each word.

**EXAMPLE**

**philosophy** *He studied philosophy and psychology at Cambridge.*

**哲学**

I don't know

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**adult** *This movie is for adults, not children.*

I don't know

**affluence** *Her affluence allowed her to travel whenever she wanted.*

I don't know

**anomaly** *A cat with no tail is an anomaly.*

I don't know

**equilibrium** *He lost his equilibrium and fell into the lake.*

I don't know

**intimacy** *They had been intimate for sometime.*

I don't know

**minimum** *The price is his minimum; he refuses to lower it any further.*

I don't know

**prestige** *The universities of Harvard and Yale have a lot of prestige.*

I don't know

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