18   A GOOD DICTIONARY USER:
WHAT MAKES THE DIFFERENCE?

YUKIO TONO

0. INTRODUCTION

Recent developments in lexicography have been remarkable, especially in the study of the dictionary user. There is a growing awareness that it is not enough for lexicographers to think about their working problems only, and that more research should be done on the dictionary user in order to make dictionaries more user-friendly. As Gabriele Stein rightly commented, "Dictionaries are obviously written for their users. We therefore need much more research on the dictionary user, his needs, his expectations, and his prejudice." (Stein 1984:4) The development of new types of monolingual learner's dictionaries such as *Oxford Advanced Learner's Dictionary of Current English*, *Longman Dictionary of Contemporary English*, *Chamber's Universal Learners' Dictionary*, *Collins COBUILD English Language Dictionary* shows the improvement in this area and also this new age of dictionary wars makes the compilers more user-conscious.

While lexicographers try to create a new way of presenting information which may be useful to the user, very often there is a mismatch between the information provided by the lexicographer and the help required by the dictionary user (Hartmann 1987:12). What is needed definitely, therefore, is the empirical data on the user's reference needs and skills.

Hartmann (1987) gave us a fine summary of the present state of the art in the user study, in which he singled out 15 studies for comment. It must be admitted that very little research was conducted using a solid research design. More than half fall into the category of 'survey

by questionnaire'; some investigate native speakers (Barnhart 1962, Quirk 1973), some foreign learners (Tomaszczyk 1979, Baxter 1980, Béjoint 1981), some teachers (Kühn & Püschel 1982), some students and teachers (Hartmann 1983). Only two of the studies (Quirk 1973, Hartmann 1983) attempt statistical correlations of their data. The inherent limitations of questionnaire-type surveys were expressed in Hatherall (1984:184): "Are subjects saying here what they do, or what they think they do, or what they think they ought to do, or indeed a mixture of all three?" Hartmann (1987:15) also claims that indirect surveying of population samples needs to be supplemented or replaced by more carefully controlled direct observation. ·

There are some case studies using structured observation techniques like protocol (Wiegand 1985) or lexical check-lists (Bujas 1975), and others combine unstructured recording with interviewing (Ard 1982). Hartmann mentioned only two studies (Bensoussan *et al.* 1984, Mitchell 1983) for the ones using tests (Hartmann 1987:27). There has been no controlled experiment in this field except for Tono (1984). As the present writer wrote elsewhere (Tono 1986), we should employ a variety of research methods, from observation and correlation to experimentation, in order to fully investigate the dictionary user, who is, after all, not a book but a human being.

In this paper, a new observational technique was employed to investigate the differences between good and poor dictionary users. First the rationale of the study will be given, which is then followed by the research design, its results, and discussion.

1. THE IMPORTANCE OF THE STUDY OF GOOD DICTIONARY USERS

Since each individual is different, it is easy to see that some people are good at a certain thing while others are quite poor at it. The same thing can be said about dictionary look-up. There is a group of people

who have difficulties in every stage of their dictionary look-up. None of them finds it easy to find an appropriate headword, far less the definition they are looking for. On the other hand, there is another group of people who can handle the information in a dictionary quite comfortably. What makes the difference?

In second language acquisition researches, a number of studies have been conducted to discover what makes a good language learner as opposed to a poor one. For instance, Rubin (1975, 1981), Naiman, Fröhlich, and Stern (1975), and others point to a number of activities or strategies that good language learners carry out during second language acquisition. Implicit in all this work is the assumption that if we learn the characteristics of the good language learner, perhaps, through external manipulation (e.g. modification of materials and method), we can somehow convert poor language learners into good ones (Seliger 1988:32).

This approach is also applicable to the study of the dictionary user. If the characteristics of the good dictionary user are found out, they will contribute largely to the education of the poor dictionary user. Also we can have a better understanding of the look-up strategies of the skilled users, which will consequently lead to the improvement of dictionary designs.

Although there is a growing literature about the dictionary user, there are few empirical studies about the characteristics that lead to successful dictionary look-up. This paper will hopefully clarify some aspects of this interesting perspective.

2. METHOD

2.1. *Subjects*

Table 1 shows the three groups of subjects who participated in this study:

These subjects were chosen on the assumption that they should consist

TABLE 1

Group (N=)	School	Age	Level
A (N=3)	Tokyo Gakugei Univ. Part-time teachers	24-30	High
B (N=3)	Tokyo Gakugei Univ. Japanese-major Ss.	19	Middle
C (N=4)	Tokyo Metropolitan College of Aero- natutical Engineering 3rd-year Ss.	18	Low

of three different groups in their relative English proficiency and dictionary using skills. Tokyo Gakugei University is a national teacher's college in Tokyo. The part-time teachers in Group A finished their masters at the graduate school attached to this institution and all of them majored in Teaching English as a Foreign Language. As is shown later in their profile, they had many chances to use dictionaries in college and it is no doubt that they knew how to use dictionaries better than the other two groups. Group B consisted of the Japanese-major freshmen of Tokyo Gakugei University. They were supposed to do better than Group C, but they should still have some difficulties handling all the information in a dictionary. Tokyo Metoropolitan College of Aeronautical Engineering is a five-year institution ranging from 10th grade to sophomore in college. The three subjects in this study were equivalent to 12th grade students. Their English proficiency and dictionary using skills were markedly lower than the other two groups.

The number of subjects was very small because of the nature of the research design. This method was chosen because it was necessary to investigate the dictionary user not only by testing a large number of samples, but also by taking a closer look at each sample in detail. Tono (1984) did a large-scale research on the user's reference skills and

we found it necessary to confirm those findings from a different point of view.

2.2. *The User Profile Questionnaire*

Before the actual dictionary look-up, the subjects were asked several questions designed to indicate their background in language learning and dictionary use. The questions asked to each subject are such as follows:

1 How many years have you been learning English?

2 Have you ever been shown in class how to use a dictionary for your English studies? How did the teacher teach?

3 How often did you use a bilingual English dictionary when you were in a junior high school?

4 How often did you use a bilingual English dictionary when you were in a senior high school?

5 How often do you use a bilingual English dictionary now?

6 If you have any dictionaries of your own which you use for your English studies, say here which ones they are.

7 Tell me the names of the dictionaries which you think you use most often.

8 For what purposes do you use a bilingual English dictionary most often?

2.3 *Procedure*

Each subject spent about an hour with the researcher on some interviews and performing the following tasks.

2.3.1. *Cloze Test*

After the subjects were asked the questions in the User Profile Questionnaire, they were asked to do a set of cloze tests (see Appendix A). This was done to see if there was any clear difference in English proficiency among the three groups. They worked on the test without a dictionary, and only the same words as the ones in the original text were counted correct. Working time was ten minutes.

2.3.2. *Observation I: Understanding of Dictionary Conventions*

After the cloze test, the subjects were individually asked to answer questions about dictionary conventions (see Appendix B). They were requested to look at the two facing pages of a bilingual English dictionary and find answers to the questions by looking up words there. This was to see how familiar they were with some of the dictionary conventions.

2.3.3. *Observation II: L2/L1 Translation with a Dictionary*

Finally the subjects were asked to translate an English passage into Japanese (see Appendix C). They were encouraged to do the task 'as naturally as possible'. That is, they were not forced to use a dictionary and whether they decided to use it or not depended upon each subject. A detailed record of what actually happened was obtained by monitoring and taperecording what the subject was doing on the spot.

Working time varied, but the subjects were told to stop if they seemed to be making no more progress, or if more than 20 minutes had passed for each translation task.

2.4. *Data Analysis*

Real-time recordings of the subjects' translation tasks with dictionaries were made on tape and a careful analysis was made to determine the process of reading and the use of a dictionary. See the details of the records in the next chapter.

3. RESULTS AND DISCUSSION

Table 2 shows the results of the User Profile Questionnaire. Three of the subjects had received some instruction on how to use a dictionary in junior high school, but only one of them (B-1) remembered clearly what had been taught in class. The other seven subjects had received no instruction (C-4 had just an introduction to a beginner's dictionary with no practice).

Many of them (especially Group A & B) came to use dictionaries

very often in senior high schools. This is because the students had to prepare for the college entrance examinations which consisted of grammar and translation tests. They could not do without a dictionary in order to pass the exam. On the other hand, the subjects in Group C have no particular exam to take when they go on to their fourth

TABLE 2 RESULTS OF THE USER PROFILE QUESTIONNAIRE (1)

	C-1	C-2	C-3	C-4	B-1	B-2	B-3
Q. 1	6 YEARS	6 YEARS	6 YEARS	7 YEARS	9 YEARS	7 YEARS	7 YEARS
Q. 2	YES (JH-1)	NO	YES (JH-2) W/PRAC-TICE	JUST AN INTRO-DUCTION	YES (JH-1) W/ GAMES	NO	NO
Q. 3	1+/WEEK	NEVER	1+/DAY	NEVER	1+/DAY	1+/WEEK	NEVER
Q. 4	<1/WEEK	1+/WEEK	<1/WEEK	<1/WEEK	1+/WEEK	1+/DAY	1+/DAY
Q. 5	1+/WEEK	1+/DAY	1+/WEEK	1+/WEEK	1+/WEEK	1+/WEEK	1+/WEEK
Q. 6	KNCEJD	COMP LIGHT-HOUSE LDOCE	GLOBAL PRO-GRES-SIVE	PRO-GRES-SIVE	LIGHT-HOUSE	GLOBAL	GLOBAL LIGHT-HOUSE PRO-GRES-SIVE (JE)
Q. 7	KNCEJD	COMP	GLOBAL	PRO-GRES-SIVE	LIGHT-HOUSE	GLOBAL	GLOBAL
Q. 8	MEANING	MEANING PRONUN-CIATION	MEANING	MEANING	MEANING	MEANING	MEANING USAGE

NOTE: For the abbreviations of dictionaries, see the bibliography for cited dictionaries in Appendix D.
   In Q. 3-5, read each column as follows:
   1+/DAY = once or more per day
   1+/DAY = once or more per week
   < 1/DAY = less than once per week

year, equivalent to a freshman in college, so they gradually stopped using dictionaries after they entered the school. It seems that the subjects learned to use a dictionary not from deliberate teaching but by repetitive use.

Group A started using dictionaries very much after they entered the university. They had to look up words in not only bilingual but also monolingual dictionaries such as *OALD*, *CULD*, *LDOCE*, and sometimes even *OED*. This made a big difference between the abilities of

TABLE 2   RESULTS OF THE USER PROFILE QUESTIONNAIRE (2)

	A-1	A-2	A-3
Q. 1	13 YEARS	16 YEARS	15 YEARS
Q. 2	NO	NO	NO
Q. 3	NEVER	1+/DAY	NEVER
Q. 4	1+/WEEK	1+/DAY MONOLING-UAL ALSO USED	1+/DAY
Q. 5	1+/WEEK	1+/WEEK	1+/WEEK
Q. 6	PROGRESSIVE & 5~6 E~J DIC'S LIGHTHOUSE (JE) & 4 J-E DIC'S CULD / AHD & 10+ MONO DIC'S	PROGRESSIVE / ANCHOR AND MANY OTHER E-J DIC'S PROGRESSIVE / LIGHTHOUSE (J-E) OALD / LDOCE / CULD KATSUMATA	PROGRESSIVE / KENKYUSHA AND MANY OTHER E-J DIC'S PROGRESSIVE / LIGHTHOUSE COD / LDOCE / etc
Q. 7	PROGRESSIVE CULD / AHD	PROGRESSIVE (E-J/J-E) OALD	PROGRESSIVE (E-J) LDOCE
Q. 8	MEANING USAGE & COLLOCA-TION FOR WRITING	MEANING USAGE & COLLOCA-TION FOR WRITING	MEANING / USAGE / COLLOCATION THE USE OF (1) J-E AND (2) E-J FOR WRITING

Group A and the other two groups.

Table 3 shows the results of the cloze test. As was mentioned earlier, the three groups were considered to be different in English proficiency. The test results, however, show that there was a significant difference only between Group C and the other two and that no clear difference was found between Groups A and B:

TABLE 3 RESULTS OF THE CLOZE TEST

SUBJECT	A-1	A-2	A-3	B-1	B-2	B-3	C-1	C-2	C-3	C-4
SCORE	19	21	19	15	4	17	0	5	3	4
%	68	75	68	54	14	61	0	18	11	14

This does not necessarily indicate that the proficiency levels of Groups A and B are exactly the same, for this test may not have enough discriminating power to show significant differences. In this study, however, we will follow the results of the cloze test. B-2 turned out to be less proficient than was expected. Thus, in terms of English proficiency, we may say that Group A, B-1 and B-3 should be in the same group (let's call it HG) while Group C with B-2 make up another group of lower proficiency (LG).

Table 4 indicates the results of the observations of the subjects' understanding of dictionary conventions. The following six items were examined: (1) Un/Countable, (2) the form "one's", (3) illustrative examples, (4) syllabication, (5) degrees of importance, and (6) derivative forms. The subjects were asked to look at pages 996-7 in *Taishukan's GENIUS English-Japanese Dictionary* (*GENIUS* henceforth) and to solve the problems which required the knowledge of related dictionary conventions. (See Appendix B for the task questions.)

Table 4-1 shows the subjects' understanding of [U/C] difference:

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They were supposed to find the word *logging*, which is uncountable, and to delete the article *an*. Group A found the headword *logging* with ease and all of them got the right answer while all subjects but one in Group B and C failed to find the headword *logging*. Most of them looked at *log*(v.) only and thought that *logging* was its derivative form and therefore was not in the main entry. Some of them could not understand the syntactic relation of the sentence and considered *logging* to be an adjective. The speed of finding the entry did not differ so markedly among the three groups. What was different was the speed of retrieving appropriate information from the given entry.

Table 4-2 shows the results of Question No. 2. Here the subjects were asked to make an English sentence using an idiom. Their task was to look for the headword, find the idiom, and change its form appropriately. All but one (C-1) changed the word *one's* into *your* correctly. Group C was slower in finding the idiom than the other two.

In Table 4-3, we can see how effectively they could use illustrative examples. The subjects were asked to choose the most appropriate preposition for the collocation *loiter* (   ) *sth*. Since *GENIUS*, in this case, indicates the collocational information in illustrative examples, the subjects had to read the illustrative examples in order to find the right preposition. The findings show that all the subjects succeeded in finding the illustrative example and choosing the correct preposition. Here again it took the subjects in Group C more time to retreive the necessary information from the entry.

In Question No. 4, the subjects were tested to see if they understood the meaning of the dots which devided the headword into its separate syllables (see Table 4-4). They were asked to show where they could break the word *Lombardy*. In some bilingual English dictionaries published in Japan (e.g. *UNION*, *LIGHTHOUSE*, *GENIUS*), two kinds of dots (round and square) are used to indicate hyphenation. Square dots show where to hyphenate the word and

TABLE 4-1   THE SUBJECTS' UNDERSTANDING OF DICTIONARY CONVENTIONS

QUESTION NO. 1

1	0s	15s	30s	45s	60s	75s	90s
A-1	·································(s)————————(f) [F: 47s] logging						
A-2	············(s)—(f) [F: 25s] logging						
A-3	··································(s)—(f)〜〜〜〜〜〜〜〜(f) [F: 85s] log(v.) logging						
B-1	········(s)—(f)〜〜〜〜〜〜〜〜〜〜〜〜〜〜'No mistake' log(vt.) (vi.) [60s]						
B-2	···(s)————————(f)〜〜〜(f)〜〜〜〜〜〜 | Thought *logging* as Adj. log(vt.) (vi.) | Cocluded that there was no mis- | take. [4m 50s]						
B-3	·············(s)—(f)〜〜〜〜〜〜〜(f)〜〜〜〜〜(f)〜〜〜 | Delete -ing log(vt.) (n.) (vi.) | [105s]						
C-1	·············(s)—(f) 〜〜〜〜〜〜〜〜〜〜〜〜 ??? | He didn't find lon(n.) (vt.) | *logging*. [2m15s]						
C-2	·················(s)————————(f) 〜〜〜〜〜〜 | He didn't find *logging* and log(vt.) | concluded it had no mis- | take [4m30s]						
C-3	(s)————————(f)〜〜〜(f) 〜〜〜〜〜〜〜〜〜〜 'No mistake.' log logging [70s]						
C-4	(s)—(f)〜〜〜〜〜〜〜〜〜〜〜(f) 'No mistake.' log(n.) (v.) [75s]						

NOTES: 1. Each line or underline means the following:
1. ······ : The subject was reading the sentence without a dictionary.
2. ———— : The subject was looking up the word in a dictionary.
3. 〜〜〜 : The subject was reading the entry and/or analyzing the sentence.
2. (s) indicates when the subjects started looking in the dictionary, and (f) shows when he/she finished.

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TABLE 4-2 THE SUBJECTS' UNDERSTANDING OF DICTIONARY CONVENTIONS
QUESTION No.2

	0s	15s	30s	45s	60s	75s	90s
A-1	(s)—(f)〰〰〰(w)·············[F: 41s] idiom					one's →your	
A-2	(s)——(f)〰〰〰(f) (w)·······················[F: 68s] 　loin　idiom					one's →your	
A-3	(s)——(f)〰(f)〰〰〰(W)················[F: 45s] 　lion　idiom					one's →your	
B-1	(s)——(f)(w)········[F: 25s] 　loin　idiom					one's →your	
B-2	(s)—(f)〰(f) (w)························[F: 45s] 　loin　idiom					one's →your	
B-3	··········(s)————————(f)(w)··························[F: 70s] 　　　　　　idiom					one's →your	
C-1	(s)——————(f)〰〰〰(f)〰〰〰(w) ················· [F: 110s] 　　　loin　　　idiom					one's →one's	
C-2	(s)————(f)〰〰〰　〰〰〰〰〰(f)〰〰(w) ······ [F: 130s] 　　　loin　　　　　　　idiom[100s]　　one's →your						
C-3	(s)—(f)〰〰〰〰〰(f)〰〰〰〰〰(w) ·······················[F: 85s] 　loin　　　idiom　　　　　　　　　.one's →your						
C-4	·····························(s)—(f)〰(f)〰(w)·······[F: 62s] 　　　　　　loin　idiom　　　　　　one's →your						

NOTES: (w) = The subject started writing the sentence at this point.
　　　　····· = The subject was writing the sentence.
　　　　one's→your = The subject changed the word 'one's' into 'your' correctly.
　　　　one's→one's = The subject did not change the word 'one's' into 'your'

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TABLE 4-3   THE SUBJECTS' UNDERSTANDING OF DICTIONARY CONVENTIONS

QUESTION No. 3

	0s 15s 30s 45s 60s	ANSWER
A-1	(s)—(f)〰〰[F: 15s] loiter	OVER
A-2	(s)—(f) [F: 12s] loiter	OVER
A-3	(s)—(f)〰〰〰〰[F: 31s] loiter	OVER
B-1	(s)—(f)〰〰〰[F: 16s] loiter	OVER
B-2	(s)—(f)〰〰〰〰[F: 20s] loiter	OVER
B-3	(s)—(f)〰〰〰[F: 16s] loiter	OVER
C-1	(s)———(f)〰〰〰[F: 20s] loiter	OVER
C-2	(s)————(f)〰〰〰〰〰[F: 40s] loiter	OVER
C-3	(s)—(f)〰〰〰〰〰[F: 35s] loiter	OVER
C-4	(s)——(f)〰〰〰[F:29s] loiter	OVER

NOTE: The line 〰〰 indicates when the subject was looking for information under the entry.

TABLE 4-4 THE SUBJECTS' UNDERSTANDING OF DICTIONARY CONVENTIONS

QUESTION No. 4

	0s 15s 30s 45s 60s 75s	ANSWER
A-1	(s)————————(f)〜〜〜[F: 21s]	(4) & (5)
A-2	(s)—(f)〜〜〜〜〜〜〜〜〜〜[F: 30s]	(4) & (5)
A-3	(s)(f)〜〜〜〜[F: 14s]	(5)
B-1	(s)—(f)〜〜〜〜〜〜〜[F: 20s]	(5)
B-2	(f)〜〜〜〜〜〜〜〜〜〜〜〜[F: 42s]	(5)
B-3	(s)(f) [F: 14s]	(5)
C-1	(s)———(f)〜〜〜(5)→(4)→(5) [F: 30s]	(5)
C-2	(s)————(f)[F: 16s]	(4)
C-3	(s)—(f)[F: 8s]	(5)
C-4	(s)————(f)〜〜〜〜〜〜〜[F:26s]	(4)

NOTE: The correct answer is (5).

round dots only show syllabication. In the case of *Lombardy*, the syllables are *Lom-bard-y*, but only *Lom-bardy* is the right way to hyphenate. No one in this study knew the two ways of showing hyphenation. It is interesting that the two subjects in Group A chose (4) and (5) while Group B avoided (4). This shows that misunderstanding of, and too much reliance on, the dictionary conventions causes even advanced learners to make simple mistakes. On the other hand, it was noteworthy that the subjects in Group B sensibly excluded the possibility of (4).

In Table 4-5, the subjects were asked to give numbers to five words in order of importance. In most bilingual English pedagogical dictionaries in Japan, words are marked with stars to show the relative importance or frequency. The marking system varies from dictionary to dictionary, but usually the more stars the word has, the more important it is. The findings indicate that three of LG (B-2, C-1, and C-3) chose the order without referring to the stars. When asked how to decide, they said they first chose the words they had already known and then numbered the others according to the difficulty of meanings and the space of the entry. It was shocking that some of the subjects did not even know the meaning of the stars.

Table 4-6 indicates the results of the subjects' understanding of the notation of derivative forms in a dictionary. Groups A and B had almost no trouble finding and writing the correct derivative forms. On the other hand, Group C was in trouble especially with the word *logged*. GENIUS indicates the past tense of *log* simply by *-gg-*. None of the subjects in Group C could understand the notation. It may seem very simple and clear to us, but we should always remember there are such people like them who do not know even the very simple dictionary conventions. It is noteworthy that many learner's dictionaries in Japan have recently tried to make the notations as simple and transparent as possible. These dictionaries all list *logged* in a complete form.

TABLE 4-5 THE SUBJECTS' UNDERSTANDIND OF DICTIONARY CONVENTIONS

QUESTION NO.5

	0s 15s 30s 45s 60s 75s 90s	

A-1	(s)——(f)(f)(f)(f)(f) (o)················[F: 54s]
	   loft London long
	   logic lonely
		1. long 2. London
		3. loft 4. lonely
		5. logic

A-2	······(s)—(f)〰〰(f)(f)(f)〰(f) (o)·······[F: 60s]
	   lonely long loft
	     London logic
		1. long 2. London
		3. lonely 4. logic
		5. loft

A-3	(s)—(f)(f)(f)(f)(f) (o)·································[F: 75s]
	   loft London long
	   logic lonely
		
		1. London 2. long
		3. lonely 4. logic 5. loft

B-1	(o)············[F:15s](no dic. used)	1. long 2. London 3. lonely 4. logic 5. loft

B-2	(s)—(f)(f)(f)(f)(f) (o)················[F: 50s]
	   long London logic
	   lonely loft
		
		1. long 2. London 3. lonely
		4. loft 5. logic

B-3	(s)——(f)〰〰(f)(f)(f)(f)(o)···············[F: 50s]
	   London long logic
	        lonely loft
		
		1. London 2. long 3. lonely
		4. logic 5. loft

C-1	(s)————(f)〰〰〰〰(f)〰〰〰〰〰(f)〰〰〰〰(f)〰〰〰〰〰(f) London logic lonely long loft	
	90s 105s 120s (o) ···················· [F:115s]	1. long 2. London 3. lonely 4. logic 5. loft

C-2	(s)——(f)〰(f)(f)(f)(f)[F: 40s]
	   (o)London·····long·····loft
	       lonely···logic
		
		1. long 2. London 3. loft
		4. lonely 5. logic

C-3	(o)···················(s)—(f)〰(f) [F: 35s]
	   London long logic loft
	      lonely
		
		1. London 2. long 3. lonely
		4. loft 5. logic

C-4	(s)(f)〰〰(f)〰〰〰〰〰(f)〰〰〰(f)〰(f) (o) ······················[F: 83s] loft logic London long lonely	 1. long 2. logic 3. lonely 4. London 5. loft

NOTE: (o) shows when the subject started ordering the words.

TABLE 4-6 THE SUBJECTS' UNDERSTANDING OF DICTIONARY CONVENTIONS

QUESTION No. 6

	0s 15s 30s 45s 60s 75s 90s 105s 120s 135s 150s
A-1	f——F f——F f——F[56s] logier loessial logged
A-2	f——F f——F f——F[60s] logier loessial logged
A-3	f—F f——F f—F[42s] logged loessial logier
B-1	f———F f——F f———F[65s] logier loessial logged
B-2	f——F f—F f—F[48s] logier logged loessial
B-3	f——F f——F f——F[50s] logier logged *loial
C-1	f———F f———cannot understand '-gg-' f(170s)————————F[215s] *loggier *loial
C-2	f—F f—F f—F[35s] logier *loged loessial
C-3	f—F f———F f———cannot understand '-gg-'————————??? logier loessial [160s]
C-4	f(log)———————————————————— f(logy)—F f—— logier - 165s 180s 195s ——? f(loess)F *logg loessial

NOTES: 'f' is when the subject found the word. The capital 'F' shows when the subject finished writing the derivative form of the given word. The line between 'f' and 'F' shows the time spent for information-retrieval under the entry. The words written under 'F' were the forms they actually wrote. Asterisks before the words indicate that the forms were incorrect.

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We always have to consider the balance between the sophistication of dictionary conventions and the user's reference skills.

The results of the first observations (Table 4-1 to 4-6) give us the following implications about the good dictionary user:

1) *The good dictionary user retrieves necessary information from the entry faster.* The results indicate that there was no clear difference in the speed of finding the headword between the good and the poor users. Difference was, however, clearly seen in the time they spent for information retrieval.

2) *The good dictionary user understands the dictionary conventions better.*

3) *The good dictionary user has sufficient language proficiency to understand the content of the entry.* The findings show that Group C always faced difficulties in understanding what was witten in the entry. This was due to not only their lack of knowledge of dictionary conventions but also their low language proficiency.

In the second observation, the subjects' use of dictionaries in L2/L1 translation was examined. Since the subjects were asked to perform their tasks the way they usually did, some seldom used dictionaries and others looked up so many words in one sentence that they could not finish translating the whole paragraph. They were not informed of the time limit (though they were told to stop after 20 minutes) because, as Béjoint (1987:99) has noted, the dictionary is consulted for help especially when the user is not excessively pressed for time.

Table 5 shows the results of the decoding tasks. It seems difficult to make any conclusion from this data, but it gives us the following implication:

1) *The subjects of higher English proficiency looked up less words than those of lower English proficiency.* For example, in the case of HG (higher level group), which included A, B-1, and B-3, the average percentage of looked-up words was only 6.4%, while for

LG it was 23.2%. This seems quite natural when we consider the positive correlation between language proficiency and vocabulary acquisition.

2) *The time which the subjects in HG spent on extracting necessary information from the entry (see the column CHECK) was shorter than that for LG.* On the average, HG spent 258 seconds (27%) while LG spent 453 seconds (37%). This shows again that the language proficiency affects the efficiency of dictionary look-up.

3) *There were individual differences in look-up styles.* It is interesting, for example, to see that A–2 used a dictionary far more than the other two in Group A. This subject happened to get the highest score in the cloze test. Therefore, we can not claim that she used a dictionary more because she was less proficient in language skills. When she was asked about her reference habits, she said that she never used dictionaries when reading English books unless she had to translate a book into Japanese for a job. When she did do her translation work, she said, she used dictionaries quite often to check for better translation equivalens. That is why she used a dictionary so much here, too.

4) *The skilled users seemed to know which words to look up.* For example, many subjects in Groups B and C looked up the word *jump* and tried to find the idiom *drive away*. This collocation is not really an idiom, so the dictionary usually lists it in illustrative examples. Group A seemed to know this and no one looked in the idiom sections. Some looked up such words like *into* or *away* instead of the verbs connected to them (in this case, *jump* and *drive*). The ability to choose the right word to look up is also an important factor for a good dictionary user.

TABLE 5   THE USE OF DICTIONARIES IN L2/L1 TRANSLATION

	NUMBER OF WORDS	TOTAL	%	LOOK-UP TIME (Sec.)	CHECK		TRANSLA-TION		TOTAL TIME
					TIME	%	TIME	%	
A-1	5	95	5	11.8	260s	29	479s	54	892s
A-2	14	95	15	9.4	414s	41	387s	39	1003s
A-3	0	95	0	—	—	0	370s	53	697s
B-1	7	95	7	12.7	255s	25	493s	48	1020s
B-2	14	68	21	21.5	365s	30	282s	23	1207s
B-3	5	95	5	18.4	101s	12	556s	66	845s
C-1	8	33	24	32.5	720s	46	150s	10	1560s
C-2	7	39	18	15.9	187s	26	174s	24	720s
C-3	17	68	25	16.1	441s	35	337s	26	1275s
C-4	13	46	28	16.6	553s	48	235	20	1160s

4. CONCLUSION

So far we have seen some characteristics of the good dictionary user. We have seen that in many cases the good dictionary user was also the good language learner. A certain degree of language proficiency seemed to be necessary for effective dictionary use. However, there are also those who have a good command of English but have poor dictionary skills. Or there may be, though unlikely, some people who know much about dictionaries and use them quite comfortably but have very low language proficiency. We need to do more research on the taxonomy of dictionary users and their reference skills. The

trend is shifting from static taxonomies to more dynamic observations of what real users do with real dictionaries in real situations of communicative deficit. By improving research designs and survey methods, more fruitful results will be obtained in future studies.

Appendix A: THE ORIGINAL TEXT FOR THE CLOZE TEST

I (was) in a shop waiting (for) my wife to try (on) a dress, and I (exchanged) a few remarks with (a) man standing nearby. Just (then), his wife came up, (and) her eyes were shining (with) joy. She looked happy (because) she was pleased with (the) dress she was wearing, (but) her husband shook his (head) negatively, saying he didn't (like) it. She was disappointed, (but) she didn't want to (buy) it if he didn't (approve).She returned to the (fitting) room. He promptly asked (the) clerk the price of (the) dress, paid for it, (asked) her to wrap it (as) a gift and said (he) would pick it up (later) that afternoon.

Turning to (me), he explained, "Tomorrow is (her) birthday, and this is (the) only way I can (surprise) her with a new (dress) that she really likes."

Appendix B: THE QUESTIONS USED TO CHECK THE SUBJECTS' UNDERSTANDING OF DICTIONARY CONVENTIONS

Answer the following questions by consulting the *GENIUS English-Japanese Dictionary*, pp.996-997.

1. Correct,if any, mistakes in the following sentence:

        That is the forest where an illegal logging has been reported.

2. Put the following sentence into English. Use the word *loin*:

        "Kimi wa kondo wa fundoshi wo shimete kakaranakereba naranai."

        ("You have to gird up your loins this time.")

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3. Choose the best word:

Don't loiter (in, around, over, with) your job.

4. Where do you break the word *Lombardy* at the end of a line of writing? Choose the correct number:

    1) Lomb-ardy   2) Lombar-dy   3) Lomba-rdy
    4) Lombard-y   5) Lom-bardy

5. Number the following words in order of importance:

loft / logic / London / lonely / long

6. Change the forms:

    1) logy (comparative)   2) log (past)   3) loess (adjective)

Appendix C: THE PASSAGE FOR L2/L1 TRANSLATION WITH A DICTIONARY

When we jump into a car and drive away at, the start of a long journey, how often do we, remember the workers of the past who made and drove, the first cars? They faced troubles of different kinds. The, cars made a lot of noise. The drivers were in, the open air, not behind glass. They got cold and, wet. A long journey made them very tired, and they, were never sure of reaching the end safely. They wore, unusual clothes because of the wind and the rain, and, the clothes got very dirty.

··· From "Rolls and Royce" in *Some Unusual People*

(Longman Graded Readers)

Appendix D: BIBLIOGRAPHY FOR CITED DICTIONARIES

COBUILD = *Collins COBUILD English Language Dictionary* (1987)

COMP = *Obunsha's COMPREHENSIVE English-Japanese Dictionary* (1975)

CULD = *Chambers Universal Learners' Dictionary* (1980)

GENIUS =*Taishukan's GENIUS English-Japanese Dictionary* (1987)

GLOBAL =*GLOBAL English-Japanese Dictionary* (Sanseido 1983)

KNCEJD = *Kenkyusha's New Collegiate English-Japanese Dictionary* (1985)

LDOCE = *Longman Dictionary of Contemporary English* (2nd ed. 1987)

LIGHTHOUSE = *Kenkyusha's LIGHTHOUSE English-Japanese Dictionary* (1984)

OALD = *Oxford Advanced Learner's Dictionary of Current English* (1980)

OED = *The Oxford English Dictionary* (Oxford Univ. press 1884-1933)

PROGRESSIVE = *Shogakukan PROGRESSIVE English-Japanese Dictionary* (1980)

PROGRESSIVE (JE) = *Shogakukan PROGRESSIVE Japanese-English Dictionary* (1986)

UNION = *Kenkyusha's UNION English-Japanese Dictionary* (1978)

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