

# **Electronic Dictionaries in ESL College Classrooms**

**Prof. Reima Saado Al-Jarf**  
King Saud University

TESOL Arabia '99 Conference Proceedings Vol. IV, pp. 42-51.  
April 17-19, 1999

# Electronic Dictionaries in ESL College Classrooms

## Abstract

This study tried to find out the percentage of ESL and translation students who use the electronic dictionary (ED), differences between ESL and translation students in using ED, level at which students started to use an ED, courses in which students use an ED, kinds of ED that students use, i.e. monolingual, English-Arabic, Arabic-English, general or specialized ED, the percentage of words that they find in an ED, kinds of linguistic information that they obtain from an ED, reasons for using an ED, limitations of an ED as perceived by the students in both groups, reasons for not using an ED at all, and the advantages of the book dictionary (BD) over an ED as perceived by users of an ED.

**Keywords:** *electronic dictionaries, EFL/ESL students, dictionary usage, electronic dictionary entries,*

## 1. Introduction

The number of students who use pocket electronic dictionaries (ED), electronic spellers, grammar checkers and electronic language translators in ESL classrooms has increased over the past few years. However, very few studies investigated the role of electronic dictionaries, electronic spellers, grammar checkers and electronic language translators in ESL. Two studies by Tang (1997) and Aust (1993) investigated the use of pocket ED's by ESL students at the secondary and undergraduate levels. Tang's study examined ED features, uses, effectiveness as a tool for learning, and students' perceptions of ED usefulness. Aust's study examined measures of consultation, study time, efficiency and comprehension, and use of bilingual and monolingual ED's. Another study by Zupanicic (1995) compared the use of an electronic speller and a personal spelling dictionary in increasing elementary students' awareness of standard spelling. Another study by Lamb (1991) investigated use of Webster's Dictionary on CD-ROM in large-group and library media skills instruction.

## 2. Aims of Study

The aims of the present study were to find out the percentage of ESL and translation students who use the electronic dictionary (ED), differences between ESL and translation students in using ED, level at which students started to use an ED, courses in which students use an ED, kinds of ED that students use, i.e. monolingual, English-Arabic, Arabic-English, general or specialized ED, the percentage of words that they find in an ED, kinds of linguistic information that they obtain from an ED, reasons for using an ED, limitations of an ED as perceived by the students in both groups, reasons for not using an ED at all, advantages of the book dictionary (BD) over an ED as perceived by users of an ED.

## 3. Subjects

Subjects for the present study consisted of a random sample of 234 students at the College of Languages and Translation, King Saud University, Riyadh, Saudi Arabia. The sample was divided into two groups: 121 freshmen and sophomore students (ESL group) and 113 junior and senior students (translation group). Freshmen and sophomore students (ESL group) take four levels of language courses: listening, speaking, reading, writing, vocabulary building, and grammar in the first four semester of college. Junior and senior students (translation group) take the following linguistics courses: stylistics, text typology, semantics, contrastive analysis and linguistics. They take practical translation courses in the humanities, religion,

medicine, agriculture, law, literature, media, engineering, physical science, business administration, military, education, commerce, computer science, oil industry, social sciences, politics and two levels of liaison, simultaneous, and consecutive interpreting courses.

#### **4. Data Collection and Analysis**

Data was collected over two semesters (Fall 1998 and Spring 1999). An open-ended questionnaire consisting of 15 open-ended questions was administered to students who use an ED. Those who do not use an ED were asked to write reasons for not using it. It was found that students use the following kinds of ED: Franklin, Oxford, Atlas, Al-Mawrid and Saleh. The study was limited to use of pocket electronic dictionaries. Mini translators and dictionaries on CD-ROM were not the focus of the study. Students' answers were sorted out and categorized. Frequency counts, percentages and inter-analyst reliability coefficient were calculated.

#### **5. Results**

Table (1) shows that 68% of ESL students and 60% of translation students use an ED. However, most of ESL and translation students who use an ED use it occasionally. The percentage of students who use an ED seems to decrease as they progress in college. More ESL than translation students use an ED. In other words, younger students use an ED more than older students.

In Table (2), 99% of ESL and translation students use a general English-Arabic ED. Only 2% of ESL and translation students use a specialized ED probably because most ED's are general. Very few ED brands have CD's for specialized vocabulary. More translation students (87%) than ESL students (53%) use an Arabic-English ED. This is closely related to the students' needs and the types of courses that they take. In their junior and senior years, translation students mainly take translation courses and they are required to translate texts from Arabic into English, hence they need to use an Arabic-English ED more. On the other hand, ESL students use an Arabic-English ED less because in their freshman and sophomore years, they mainly take English language courses and they need to check an English-English dictionary more often. Findings indicate that between 21% and 27% of the students in both groups use a monolingual dictionary, because English definitions, as some students indicated, contain difficult words and students find them difficult to understand.

Table (3) shows that ESL students mainly use an ED in the writing, reading and vocabulary building courses respectively. About half of the translation students consult an ED in practical translation and courses. About one third use it in linguistics courses.

In Table (4), one third of ESL students started to use an ED as soon as they started college. Another third of ESL students started to use it in level three as opposed 15% and 21% of translation students in level one and level three respectively. Comparing the percentages of ESL and translation students at each level, Table (4) shows that fewer translation students use an ED than ESL students. Moreover, findings indicate that more ESL students started to use an ED in the first three levels, whereas more translation students started to use it after level three. These results show that ED's are becoming more popular among younger students. ESL and translation students started to use an ED in level three probably because the difficulty level of the reading, writing and vocabulary building courses taken in that level increases considerably. The Vocabulary Building course in particular focuses on Greek and Latin roots, prefixes and suffixes and students encounter many new words. As a result, ESL students consult their ED more than before.

Findings of the present study indicated that the students in both groups typically find 80% of the words they need. 87% of ESL students and 75% of translation students find between 70 - 99% of the words they need. 20% of translation students and 13% of ESL students find between 40-69% of the words they look up in an ED (see Table 5). The percentage of words that students find in an ED decreases as they progress in their studies. This depends on the type of ED they use. The range of words that translation students need is wider than that for ESL students.

The types of linguistic information that students find in an ED are rank-ordered in Table (6). Most ESL and translation students use their ED to look up the Arabic meaning of the English word (92% of translation students, and 79% of ESL students). About two thirds of ESL and translation students use it to find the part of speech of an English word. More translation students than ESL students use their ED to check the spelling of the word (48% and 33%), to obtain illustrative examples that show the meaning and usage of the word (45% and 34%), to hear the pronunciation of the word (40%, and 31%), to look up the English equivalents to Arabic words (39% and 33%), to check the conjugation of English verbs, (37%, 21%) and to find the synonyms of an English word (28%, 19%). It seems that translation students need twelve types of linguistic information more than ESL students partly because they are older and more sophisticated and partly because their translation courses require such detailed linguistic information. In addition, they may be more aware of the linguistic features that an ED provides.

ESL and translation students gave fifteen reasons for using an ED listed in Table (7) in order of importance. Results show that ESL students are more in favor of using an ED than translation students. For eleven reasons, the percentage of ESL students is higher. Results indicate that the majority of ESL and translation students use an ED for its non-linguistic features: because it is fast (87%, 89%), it is easy to use (60%, 49%), it is small, light weight and portable (52%, 67%) and it saves time (41%, 34%) especially while doing homework and taking a test. ESL students use an Ed for the following linguistic reasons: they can hear the pronunciation (35%), they can check their spelling (34%), they can find illustrative examples and an ED gives direct, simplified and brief meanings (20%), it gives direct, simplified and brief meanings (20%). Translation students use an Ed for the following linguistic reasons: they can check their spelling (27%), they can hear the pronunciation (24%), it gives the English and Arabic meaning at the same time (18%), and they can check, review and learn words (15%). Table (7) shows that ESL students are more in favor of using an ED than translation students.

Between 1% - 2% of the students mentioned other features (not presented in Table 7) like: using a specialized CD, finding the French equivalent, giving the meaning of English and Arabic affixes, translating illustrative examples, expressions, whole sentences and proverbs, word games, dialogs, a calculator, an alarm clock, world times, a calendar, a phone book, currency exchange, note pad, save their own words and other data. Very few students mentioned those features either because few ED's have such features or because few students are aware that such features exist in their ED's. Younger students are more aware of such features than upper levels students may be because recent Ed's have more features than older versions.

Although students find an ED very fast, easy to use, portable, they think that it has several limitations. The students gave 14 limitations of ED's listed in Table (8). The two most important limitations that ESL and translation students gave were that most of the time they neither find the required meaning nor the required word. More ESL students than translation students focused on non-linguistic limitations, whereas more translation students than ESL

students focused on linguistic limitations, whereas. The most important non-linguistic limitation that ESL students gave was that an ED teaches laziness (36%). An ED does not help ESL students develop searching skills (27%). Once they get into the habit of using an ED, they no longer practice a BD. As a result, they will be slow in using a BD. An ED does not enrich their vocabulary knowledge and does not help them recall words and their meanings (16%). It has several operation and maintenance problems (16%). Translation students indicated that their ED gives few senses of the word, i.e. they do not find the required meaning (60%). It contains fewer entries than a book dictionary, i.e. they do not find the required word (45%). It gives inaccurate Arabic equivalents (32%), it does not give meanings of specialized terms (29%) and it gives brief definitions (22%).

ESL and Translation students who do not use an ED in particular gave 27 reasons for using a BD rather than an ED (see Table 9). ESL students focused on the following reasons: a BD enriches their vocabulary and helps them remember the words and their meanings (64%), a BD helps improve their spelling (36%), a BD has more entries than an ED (32%), a BD gives more illustrative examples than ED (32%), a BD gives accurate pronunciation (23%), they are required to use a BD (19%), gives the part of speech of every word (18%), it teaches laziness (14%), and a BD is more enjoyable to use (14%). On the other hand, translation students focused on the following linguistic reasons: a BD gives all senses (70%), a BD gives accurate meanings (55%), an ED does not give the meanings and equivalents of specialized terms.

Although ESL and Translation students find an ED useful, they gave 15 advantages of using a BD presented in Table (10). Between one fourth and a third of ESL students focused on the following features: a BD gives all the senses and covers all the words (39%). It gives accurate Arabic equivalents (32%) and gives detailed information about a word (23%). More translation students than ESL students pointed out that a BD gives all the senses of a word (56%), it covers all the words (54%), there are many specialized dictionaries, hence they can find the meaning of technical terms (49%), it gives accurate Arabic equivalents (40%), it gives many detailed information about words (37%), it gives detailed definitions and explanations of the word (29%), it is more comprehensive (24%).

Table (1)  
Frequency of Using An ED

Frequency	ESL Group	Translation Group
Always	08%	05%
Sometimes	60%	55%
Never	32%	40%

ESL users and non-users = 121

Translation users and non-users = 113

Table (2)  
Kinds of ED That Students Use

ED Types	ESL Group	Translation Group
English-Arabic	99%	99%
Arabic-English	53%	87%
English-English	27%	21%
General	99%	99%
Specialized	02%	02%

ESL ED users = 82

Translation ED users = 68

Table (3)  
Courses In Which Students Use an ED

Courses	ESL Group	Translation Group
Practical Translation courses	--	48%
Writing	43%	--
Reading	39%	--
Vocabulary building	39%	--
Linguistics courses	35%	38%
Speaking	16%	--
Listening	01%	--
Dictionary skills	01%	--

ESL ED users = 82

Translation ED users = 68

Table (4)  
Level At Which Students Started Using An ED

Level	ESL Group	Translation Group
Junior high school	01%	--
High school	04%	02%
Level 1	30%	15%
Level 2	19%	11%
Level 3	31%	21%
Level 4	07%	18%
Level 5	08%	16%
Level 6	--	15%
Level 8	--	02%

Table (5)  
Percentage of Words That Students Find In An ED

Percentages Of Words	ESL Group	Translation Group
90-99	31%	20%
80-89	36%	31%
70-79	20%	24%
60-69	07%	14%
50-59	05%	06%
40-49	01%	05%

Table (6)  
Kinds of Linguistic Information That Students Obtain From an ED

Kinds of Information	ESL Group	Translation Group
Arabic equivalent to English words	79%	92%
Part of speech	63%	65%
Illustrative examples	34%	45%
English equivalent of Arabic words	33%	39%
Spelling & spelling alternatives	33%	48%
Pronunciation	31%	40%
Verb conjugation	21%	37%
Synonyms	19%	28%
English meaning of English words	17%	16%
Derivatives	16%	07%
Several senses	12%	15%
Explanation	12%	12%
Usage notes	10%	18%
Others (etymology, pl., trans., coll., count)	11%	21%
English and Arabic meaning together	10%	06%
Antonyms	04%	10%
Grammar notes	06%	01%

Table (7)  
Reasons for Using An ED

ED features	ESL Group	Translation Group
Fast (look up word quickly)	87%	89%
Easy to use (no flipping of pages), practical	60%	49%
Portable, small, light weight	52%	67%
Saves time	41%	34%
Pronounces words	35%	24%
Check spelling, gives spelling alternatives	34%	27%
Gives illustrative examples	20%	10%
Gives direct, simplified, brief meanings	20%	02%
Check, review, learn words	16%	15%
Gives Eng and Ar meanings at same time	13%	18%
Easy to read (does not strain eyes)	12%	06%
Gives part of speech	09%	07%
Has word games	07%	03%
Check verb conjugation	07%	--
Has several dictionaries in one	--	07%

Table (8)  
Limitations of an ED

Limitations	ESL Group	Translation Group
Gives few senses (no required M)	48%	60%
Contains fewer entries (no required W)	45%	54%
Teaches laziness (neglect BD)	36%	15%
Gives inaccurate Arabic equivalents	27%	32%
Does not develop searching skills	27%	09%
Operation and maintenance problems	16%	10%
Does not enrich W, consolidate M	16%	06%
Not comprehensive (no back matter)	15%	18%
No specialized W (general W only)	13%	29%
No meaning of compounds, idioms	13%	06%
No illustrative examples	11%	07%
Gives brief meanings	10%	22%
Gives meanings without context	09%	16%
Does not expand knowledge	05%	03%

Table (9)  
Reasons for Not Using an ED At All

Reasons	ESL Group	Translation Group
BD gives all senses	64%	70%
BD enriches V, consolidates M	64%	10%
BD gives accurate meanings	36%	55%
BD improves spelling	36%	05%
BD has more entries	32%	25%
BD gives more illustrative examples	32%	10%
BD gives more information (back matter)	28%	45%
Want to practice BD	27%	35%
BD gives accurate pronunciation	23%	--
Required to use BD	19%	15%
No specialized meanings ED	18%	50%
No meaning in context in ED	18%	30%
BD always gives part of speech	18%	10%
ED teaches laziness (ignore BD)	14%	10%
BD is more enjoyable	14%	05%
BD has verb conjugation	09%	05%
Fast in using BD, slow in ED	09%	10%
ED gives brief meanings	09%	15%
BD gives meanings of phrases, compounds	10%	05%
BD expands knowledge	05%	05%
ED is slow in displaying meaning	05%	--
BD illustrates meaning through pictures	05%	--
BD gives word origins	05%	--
BD gives plural forms	05%	--
ED is not up-to-date	05%	--
ED is expensive	05%	05%
Battery may run out	--	10%

Table (10)  
Advantages of BD As Seen BY Students Who Use an ED

Advantages	ESL Group	Translation Group
Gives all senses	39%	56%
Covers all words	39%	54%
Gives accurate Arabic equivalents	32%	40%
Gives detailed information about W	23%	37%
Gives detailed definitions & explanation	18%	29%
Gives specialized meanings, specialized D	17%	49%
Enriches V, consolidates M	17%	08%
Comprehensive	16%	24%
Gives meaning in context	12%	12%
Expands knowledge	10%	04%
Gives more illustrative examples	09%	06%
Gives meaning of idioms & compounds	09%	06%
Gives all parts of speech for every word	07%	05%
Contains pictorial illustrations	06%	06%
Convenient display of meaning	01%	10%

## 6. Conclusion

The majority of ESL students use an ED in reading, writing and vocabulary building courses whereas translation students mainly use it in translation and interpreting courses. All the students use a general bilingual dictionary. They typically find 80% of the words they need. Most of ESL students prefer to use an ED because it is fast, portable and easy to use. It saves time and effort. They can check the spelling of a word and hear its pronunciation. An ED gives the part of speech of a word, illustrative examples, several Arabic equivalents, the English definition, word usage, and its synonyms and antonyms. On the other hand, translation students mainly use an ED because it is fast, easy to use, portable, and saves time. They find the Arabic equivalent, part of speech, illustrative examples, English meaning. They check spelling, hear pronunciation, and look up verb conjugations, synonyms, the English equivalent, usage and several senses of the word.

Findings of this study indicated that translation students' needs are different from ESL students' needs. Although ED's are fast, practical, and easy to use and students can use them any time and anywhere, they cannot compete with BD's. A BD is superior in its word coverage, giving all the senses of the word, availability of specialize dictionaries in many field, giving meanings of idioms and compounds, being more comprehensive and giving all kinds of information about a word. Many ESL and translation students indicated that an ED should be used in combination with a BD. An ED is helpful in occasions requiring speed like a test situation. Students use an ED to keep up with recent advances in technology. A BD is more useful for translation students, because think that an ED is inadequate for specialized translation. Students should be trained to use an ED and should be familiarized with ED features in the Dictionary Skills course that students take in level two.

Manufacturers of ED's should take into consideration the limitations of ED's and the needs of ESL and translation students. Specialized CD's may be added to general ED's. The number of entries, number of senses for each entry, number of illustrative examples should be increased. The meaning of each word should be given in context. Meanings of idioms, compounds and derivatives should be added.

### References

- Aust, Ronald & Others. (1993). The use of hyper-reference & conventional dictionaries. *Educational Technology, Research & Development*, 41, 4, 63-73.
- Lamb, Arnette. (1991). Dictionary skills go high tech: Using Webster's dictionary on CD-ROM. *School Library Media Activity Monthly*; 7, 15, 40-42.
- Tang, Gloria, M. (1997). Pocket electronic dictionaries for second language learning: Help or hindrance? *TESL Canada Journal*, 15, 1, 39-57.
- Zupanicic, Karen. (1995). *The use of an electronic speller paired with a personal spelling dictionaries of high-frequency and personal interest students' awareness of standard spelling*. ERIC Document Reproduction Service No.ED 379 645).