A Study in the Use of Bilingual and Monolingual Dictionaries by Polish Learners of English: A Preliminary Report

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Abstract

The paper presents a selection of results from a study investigating dictionary use by 712 Polish learners of English representing a variety of FL competence levels and backgrounds. Data from Learner Survey, experiment, and Teacher Survey are brought in to test hypotheses relating to a variety of aspects of dictionary use. Here two aspects have been selected for presentation.

First, frequency with which learners seek different types of information in their dictionaries is analyzed. It is found that the need for meaning and equivalents dominates over non-semantic information at all levels but the highest. At the advanced level, interest in non-semantic information surges.

Second, the relative usefulness of six dictionary types for lexical decoding is tested experimentally. Analysis reveals the influence of level, dictionary type, and interaction of level by type on test scores. Monolingual dictionary produces lowest scores, but its disadvantage is relatively smallest for advanced learners.

Introduction

This paper presents a small selection of results from a project investigating dictionary use by Polish learners of English. Data for the project were collected between December 1999 and May 2000. Data analysis is still in progress, but the volume of those findings that have already emerged is already too extensive to be presented here in its entirety; therefore, two aspects investigated in the study have been selected for presentation here in the hope that they will be of relevance to the Euralex community, and especially to scholars interested in dictionary use.

Subjects

The study involves a sample of 712 subjects, all Polish learners of English at a wide spectrum of levels, coming from 44 learner groups studying in 20 different institutions around Poland. The sample covers a broad range along the social (age, background), educational (school level, class level, school type), and geographical (region, city/town/country) dimensions.

Method

The project combines several methods of data collection: Learner Survey by questionnaire, controlled experiment and Teacher Survey (involving teachers of learner subjects). For each group of learners, data were collected during a single session of 45 minutes, administered by specially trained lexicography majors.

Both the questionnaire and experimental data can be used on their own. Beyond that, the design of the study and the format of data storage (relational database) facilitate the exploration of questionnaire data for its relevance to the various aspects of the experimental part of the study. It is hoped that data analysis – when completed – will reveal a number of facts of interest to metalexicographers, lexicographers, language teachers, and educational professionals in Poland (and, with the necessary caution, in other countries). A number of potentially interesting findings have already emerged from the study. Here, I wish to concentrate on two aspects only.

Selected results

Types of information sought by learners of different levels

In Graph 1, declared frequencies with which subjects sought the given types of information in their dictionaries are plotted against overall language competence level. For all levels except the highest, information types clearly cluster into two frequency bands. The three types of information that dominate are: meaning, English equivalents, Polish equivalents. The dominance of these three types of information suggests that dictionaries are consulted primarily for semantic information (through translation or definition) and as indices to locate target language (English) words.

The information types less commonly sought (from among those elicited in the study) turn out to be the ones usually seen as less central to dictionaries, and tend to be non-semantic in nature. Interest in the more peripheral types of information appears to surge at the highest level, to the extent that many of them (style/register, collocation, synonyms, pronunciation) now approach the frequency level of the top three types of information, upsetting the heretofore clear two-way clustering pattern.

As regards trends across the low-mid range of levels, it is interesting to note that different types of information behave differently. Thus, while interest in collocational information appears to be growing consistently across the whole range of levels, interest in phonetic information actually declines steadily all the way up to level 4, only to jump back up at level 5. This might suggest that learners lose interest in looking up pronunciation at a fairly early stage of their learning, perhaps feeling that they have gained sufficient control of this aspect of English. However, at an advanced level their interest in pronunciation appears to come back with renewed strength.

Information sought by overall level
Rao R (36,2606)=6.44; p<.0000
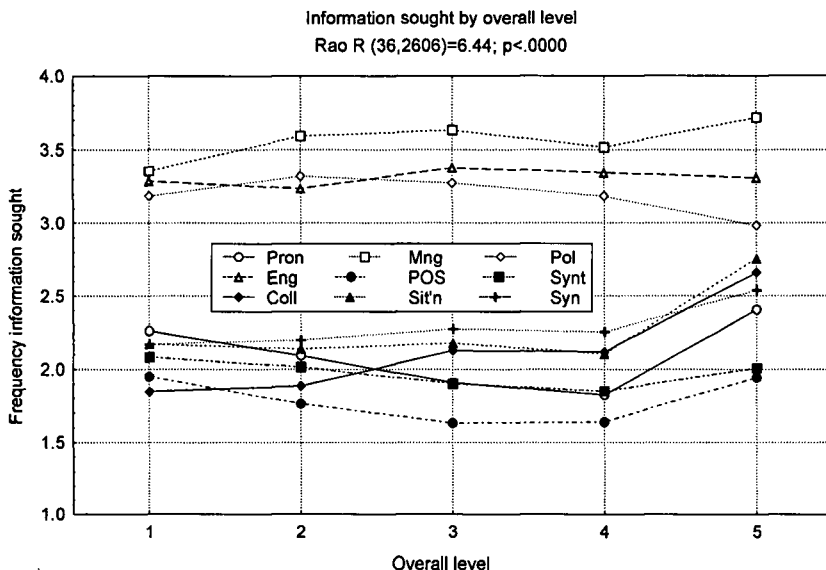
Graph 1: Information sought by overall level
(Pron = pronunciation; Eng = English equivalent; Coll = collocation; Mng = meaning; POS
= part of speech; Sit'n = style/register; Pol = Polish equivalent; Synt = syntactic patterns; Syn
= synonyms)

Experiment

In the experimental part, the main skill tested was passive lexical decoding accuracy on a number of preselected target items (grammatical performance was also measured, but will not be discussed here). Subjects were asked to complete four test tasks with a graded amount of context:

1. Synonym matching
2. Sentence completion
3. Sentence translation
4. Text translation

The decision to vary the amount of contextual information was guided by reports in the literature [Bensoussan & Laufer 1984; Fischer 1994; Hulstijn, Hollander & Greidanus 1996; McCreary & Dolezal 1999] emphasizing the importance of contextual guessing for learners' lexical behaviour, even in the presence of a dictionary.

Subjects completed the test tasks using one of six specially prepared dictionary versions, randomly assigned. The whole test package was provided in the form of a compact booklet and was designed to maximize the ease of dictionary consultation.

The six versions of the dictionary were the following:

1. bilingual dictionary with Polish equivalents
2. monolingual dictionary with definitions in English

3. hybrid (semibilingual) dictionary with Polish equivalents followed by definitions in English
4. bilingual dictionary with Polish equivalents followed by definitions in Polish
5. hybrid (semibilingual) dictionary with definitions in English followed by Polish equivalents
6. bilingual dictionary with definitions in Polish followed by Polish equivalents

Perhaps more transparently, the six versions of the dictionary may be represented in terms of controlled lexicographic variables (all binary), as shown in Table 1. Dashes in four of the cells indicate indeterminate values (language or relative ordering of definitions cannot be determined as no definitions are present in these cases).

version	equivalent	definition	definition first	definition English
1	1	0	—	—
2	0	1	—	—
3	1	1	0	0
4	1	1	0	1
5	1	1	1	0
6	1	1	1	1

Table 1: Six dictionary versions broken down by four design variables

Graph 2 plots overall test scores as a function of dictionary version and level. Results indicate a clear and consistent tendency of subjects at higher levels to achieve higher scores, which was expected. In terms of dictionary versions, one version – the monolingual dictionary – achieves significantly lower scores than each of the other five versions. There are no significant differences between any of the other versions. In terms of design variables, this means that the primary predictor of success on these test tasks is the presence of Polish equivalent, the other factors do not reach significance. However, contrast analysis reveals a slight possible advantage (about 10%; $F_{(1,682)} = 3.01$; $p < 0.08$) of Polish equivalents being placed first (dictionary versions 3 and 4) over Polish equivalents following another type of semantic explanation (English or Polish definition; versions 4 and 5). If, as the evidence compellingly shows, Polish equivalents are crucial for success, then such an order effect would not be surprising, assuming that the dictionary entry is processed linearly in the forward direction [as suggested by Tono 1984].

Overall test score by Level and Dictionary Version
$F_{(20,682)}=2.01; p<.0055$
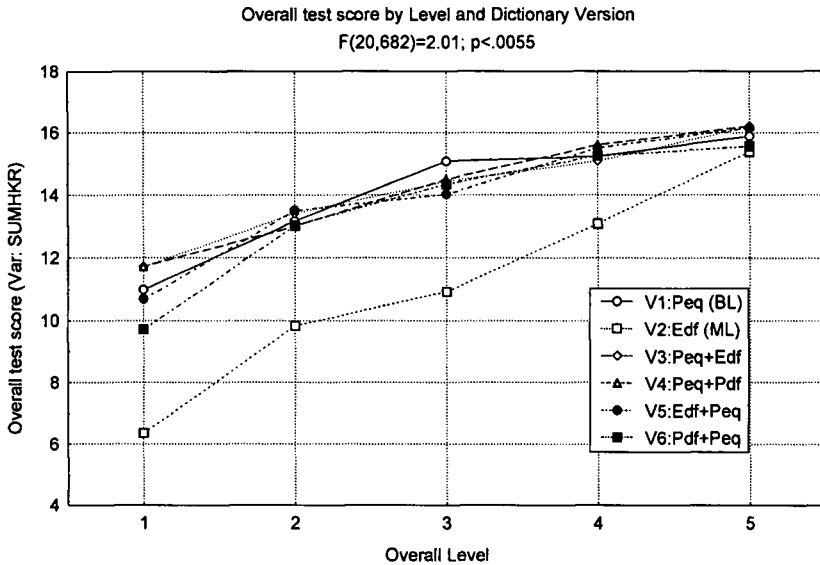
Graph 2: Overall test score by Level and Dictionary Version

There is also an interesting and significant interaction effect: the disadvantage of the monolingual dictionary diminishes with increasing level. This means that relatively speaking the monolingual dictionary indeed is (as so often claimed by numerous authors) *relatively more suitable* for the more advanced learners. Disappointingly for the monolingual dictionary enthusiast, it is in a rather perverse sense that the monolingual dictionary is *relatively more suitable*: its disadvantage is the least for the most advanced learners, but it is never really better than any other dictionary. It is rather striking that level 5 learners (most advanced in the sample) fare just about as well using a monolingual dictionary as level 3 learners using a bilingual dictionary. Obviously, other types of tasks than those used in the study might produce different results, but it may be illuminating to examine the relative disadvantage of the monolingual dictionary broken down by the four types of task when this part of the analysis is available.

References

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