

Prospective Foreign Language Teachers in Greece as Dictionary Users: An Empirical Survey

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The present paper explores dictionary use from an empirical point of view, 185 undergraduate students from three departments of foreign languages (English, French, and German) at the Aristotle University of Thessaloniki participated in the questionnaire study. The main issues examined were ownership of dictionaries, frequency of their use, categories of information sought, level of difficulty in the use of each dictionary type, level of student satisfaction with their competence in using a dictionary, level of satisfaction with the information provided by the dictionary they use, teaching of dictionary use, and necessity of dictionary skills training at various levels of the Greek educational system. Frequency analysis of all the variables and a cross-tabulation between the independent and dependent variables were performed with the use of the Statistical Package for the Social Sciences 17.0 (SPSS 17.0). The students' answers allow for some interesting comparisons to be made with the answers given by future Greek language teachers in a similar study.

Keywords: dictionary use, teacher education, dictionary skills training, teaching methodology, pedagogical lexicography, higher education

Introduction

Dictionary users as agents of the research on dictionaries (Hartmann, 2001, pp. 80-95) and the utility of the dictionary in the educational process as part of the didactical research (Chatzidimou, 2008a) have recently been in the forefront of discourse, not only in the international bibliography, but also, to a certain extent, in the Greek one. To be more specific, research on dictionary use (Atkins, 1998; Béjoint, 1989; Tono, 2001; Welker, 2006; 2010; Wiegand, 1998; 2006) and the dictionary users started in the international bibliography in the 1980's—despite their emphasis on subject didactics, especially on language teaching, and the fact that the need to conduct such research was noted as early as in the 1960's (Bogaards, 2003).

With the exception of some recent publications on relevant issues (Anastassiadis-Symeonidis, 1997; Anastassiadis-Symeonidis & Mitsiaki, 2009; Chatzidimou, 2006; 2007a; 2008a; 2008b; 2011; Efthymiou, 2009; Gavriilidou, 2000; 2002; Gavriilidou, Labropoulou, & Giouli, 2009; Iordanidou & Mantzari, 2003; Mantzari, 2011; Nikiforaki, 2003; Zerdeli, 2012), the corresponding research is still rather limited resulting in unexplored fields in the research of dictionary use in the Greek context.

This scarce bibliography in the research of dictionary use, as noted above, is characteristic on both Greek (Chatzidimou, 2007b, pp. 92-93) and international level (Hartmann, 2001, pp. 94-95). With the Greek

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research, however, being still in its infancy, whereas the number of empirical studies has grown internationally during the last decade (for example, Bogaards, 2002; Chen, 2010; 2012; Cubillo, 2002; Lew, 2011; Martin, 2008; Nesi, 2000; Nesi & Hail, 2002; Scharnhorst, 2004; Szczepaniak, 2006; Tono, 2001; Welker, 2010). Bearing this context in mind, by conducting this research through questionnaires, we strived to investigate the use of dictionaries and the extent of dictionary skills training by taking prospective foreign language teachers who were students at the Aristotle University of Thessaloniki as our sample group. By the presentation and the discussion of the findings, this research is aspiring to fill in the said research gap to a degree and in accenting the importance of using dictionaries in the teaching and learning procedures. Readers will also be able to gain some insight into various parameters of using dictionaries at all levels of the Greek educational system.

Aim and Methodology of the Research

In order to compensate for the research gap observed in Greek educational research concerning the investigation of several social groups as dictionary users, particularly those of teachers and students, the primary aim and the core research question of this study were to investigate prospective foreign language teachers as dictionary users. The sub-questions raised by this research were the following:

1. Ownership and frequency of using various dictionary types (general dictionary, dictionary of technical terms, bilingual dictionary, thesaurus, and encyclopedic dictionary);
2. Study of a dictionary's preface;
3. Reasons and occasions of usage;
4. Preference for printed or electronic dictionary and type of electronic dictionary used;
5. Level of satisfaction with prospective teachers' competence in using a dictionary and with the information provided by the dictionary;
6. Difficulties in dictionary use;
7. Sources of information for dictionaries;
8. The amount of incentive for using dictionaries given by parents and teachers;
9. Training students in dictionary use at schools and universities;
10. The necessity of this training.

These research questions have already been explored with the sample of the prospective teachers of Greek Language and Literature from the School of Philosophy of the Aristotle University of Thessaloniki (Chatzidimou, 2013). Thus, in this research, there will be an attempt to compare its results with those of that previous research, wherever it is considered necessary on the basis of the criterion of substantial similarity or difference.

A questionnaire was used as a research tool, despite the fact that the method poses certain limitations in research in general and in studying the use of dictionaries in particular¹. The number of questions, including those regarding demographic features of the participants, amounted to 28, the majority of which, namely 24, were closed questions. Its structure was based on a questionnaire used in an older survey conducted by the

¹ For example, the subjects of a research are known to say they do something that may be different from what they actually do (Bogaards, 2003, p. 26). Therefore, it would be useful to combine the use of the questionnaire as a research tool with other techniques, such as observation or protocol, which are found, among others, as methods in research on dictionaries (for example, Hartmann, 2010, pp. 179-187).

author of the present study concerning dictionary use by university students (Chatzidimou, 2007a), which was in turn based on a questionnaire relative to the corresponding research conducted by Hartmann (1999)². The total number of students from the three academic departments of foreign languages of the Aristotle University of Thessaloniki who completed the questionnaire during the Spring Semester 2010 was 185. The sampling method used was nonprobability purposive sampling, which does not allow for applying generalizations from the sample to the population (Katsillis, 2006, p. 31), but it does allow for drawing conclusions for the issues under study. The analysis and the elaboration of the questionnaire data were conducted with the use of the statistical programme Statistical Package for the Social Sciences 17.0 (SPSS 17.0).

Results and Discussion

The results of the research are presented for each one of its thematic fields, as they were formed on the basis of the research questions mentioned above. Certain demographic features of the 185 participants are presented in the beginning, followed by the results of the frequency analysis on the thematic fields. The presentation of the results is concluded with the findings emerging from the correlation of variables.

Control of statistical significance was carried out using the criterion χ^2 (Pearson's chi-square test) and at a significance level of 0.05. The relations were considered statistically significant when at a level lower than 0.05 ($p < 0.05$) and statistically highly significant when at a level lower than 0.01 ($p < 0.01$). The strength and direction of the correlation were determined in each case by the statistical indices ρ and γ if their value was higher or lower than 0.30 or -0.30.

Participants' Personal Data

From the 185 prospective foreign language teachers participating in the research, 84.3% were females and 15.7% were males. Seven percent (13) were students at the Department of English Language and Literature, another 40.5% (75) of the students came from the Department of French Language and Literature, and 52.4% (97) of the students came from the Department of German Language and Literature, all belonging to the Aristotle University of Thessaloniki. The vast majority of the participants (91.8%) had entered university having taken the pan-hellenic university entrance exams. Thirty-nine percent of them were first year students, 5.5% were second year students, 10.4% were third year students, 9.9% were fourth year students, and the remaining 35.2% were in their fifth or higher year of studies. According to their own statements, their academic performance was as follows (the first year students excluded):

1. Twenty-five point two percent of the students achieved an average mark scaling from 5.00-6.49 attributing an overall "Good" performance;
2. Sixty-eight point two percent of the students achieved an average mark scaling from 6.50-8.49 attributing an overall "Very good" performance;
3. Six point five percent of the students achieved an average mark scaling from 8.50-10.00 attributing an overall "Excellent" performance.

As far as the participants' competence in foreign languages is concerned, 97.8% spoke English, 60.5% spoke German, 58.4% spoke French, 36.8% spoke Italian, 12.4% spoke Spanish, and 8.6% spoke some other foreign languages. A percentage of 52.4% spoke three or more foreign languages.

² The same questionnaire was used to investigate the specific thematic fields, using as subjects prospective teachers of the Greek Language and Literature (Chatzidimou, 2013).

The profile of the participants depicted in the research indicated that most of them spoke at least one foreign language, other than the one they studied at the university as prospective teachers of foreign languages. Their performance in their academic studies ranged on average from “Very good” to “Excellent” and they were mainly females³.

Thematic Fields

Ownership of dictionaries and frequency of use. It seems that the bulk of the participants (90.3%) possessed a bilingual dictionary, followed by 78% owning a general dictionary and 56.8% owning an encyclopedic one. Much fewer were the students who claimed to possess a dictionary of technical terms or a thesaurus at 29.7% and 22.7% respectively. The remaining types of dictionaries included in the research accounted for a much lower percentage of frequent or very frequent use by the students who completed the questionnaire. In particular, percentages of frequent or very frequent use appeared as: (a) 27.8% for general dictionaries; (b) 25.9% for encyclopedic dictionaries; (c) 20% for thesauri; and (d) 18.7% for dictionaries of technical terms.

Comparing the responses of prospective teachers of foreign languages with those of prospective teachers of the Greek language (Chatzidimou, 2013), differentiation is observed in the top positions concerning possession of various types of dictionary: About 90% possessed a bilingual dictionary and 80% had a general dictionary. On the contrary, prospective teachers of the Greek language mostly possessed a general dictionary (about 90%), followed by those owning a bilingual one (about 80%). It is obvious that the proportions with respect to the type of dictionary they possessed to a greater extent were similar in the two groups of prospective teachers. As to how often they used dictionaries, it was shown that the percentage of prospective teachers of foreign languages who used the bilingual dictionary they had was high, much higher than the percentage of prospective Greek language teachers, who at large possessed a general dictionary. In the first case, the bilingual dictionary was used often or very often from 80% subjects according to their statements, while for prospective teachers of the Greek language, the percentage of frequent or very frequent use of the general dictionary fluctuated around 55%. The percentages of students who used the remaining types of dictionaries were much lower for both categories. However, the prospective teachers of the Greek language did use a bilingual dictionary with percentages of frequent or very frequent use at around 50.5%. It could be argued that it is normal and rather expected to some extent that prospective teachers of foreign languages use the bilingual dictionary more often than prospective teachers of their native language do, since the bilingual dictionary is a necessary and effective tool for learning and teaching a foreign language.

Studying a dictionary’s preface. Examining the degree to which students resorted to the preface of a dictionary before using it, it appeared that 50.3% of the students enquired did not bother to do so, whereas 42.6% of them took it into slight consideration, with only 7.1% paying a high degree of attention to it.

The percentages of responses of prospective teachers of the Greek language to this question were similar, attributing slightly greater importance to the introduction/preface of the dictionary than prospective foreign language teachers did. It appeared, however, that the subjects of the sample of the two surveys did not study the introduction/preface of dictionaries carefully before they used them. This could lead to the assumption that the dictionary is not used appropriately, a matter that needs to be investigated further.

³ The fact that women constituted the majority of prospective teachers in the present study sample responds to reality, since the majority of students in the departments of education and of teachers in the schools of primary and secondary education in Greece are women (Argyropoulou, 2006, p. 20).

Reasons and occasions for using dictionaries. The main reason why the majority of the prospective foreign language teachers participating in the research would resort to using a dictionary is looking up the definition(s) of a word, as 76.2% did so frequently or very frequently. At an impressively lower rate, that is 34.6% of frequent or very frequent use, stood using dictionaries so as to check a word's spelling. Finding examples of usage followed at 29.5% with a slight difference from seeking the etymology of a word at 26.9%. A percentage of 25.8% used dictionaries frequently or very frequently for acquiring encyclopedic information, 25.0% for finding synonyms or antonyms of a word, 14.4% for looking up a word's pronunciation, and 11.3% for examining a grammatical feature. Regarding the occasions for dictionary use, 59% of the students replied that they made frequent or very frequent use of a dictionary during writing a text and 48.6% during reading, while 14.6% would use it when listening.

When compared with the responses of the Greek language teachers to the corresponding questions in the questionnaire, it is evident that the first reason why both categories of teachers resorted to using a dictionary was finding the meaning of a word. The reasons that followed, however, differed: For the prospective teachers of the Greek language followed the use of a dictionary to find the etymology, synonyms/antonyms, encyclopedic information, and to verify the spelling of a word, while for prospective foreign language teachers, the second reason for using a dictionary was to check the spelling of a word, followed by looking for examples of usage, seeking its etymology, and finding encyclopedic information and synonyms/antonyms. The last two places for both categories of teachers regarding the reasons for using a dictionary were occupied by looking up grammatical elements and the pronunciation of a word. Searching for the pronunciation preceded in the case of prospective foreign language teachers and looking for grammatical elements followed. The reverse was true for the prospective teachers of the Greek language. As for the occasions of dictionary use, it was evident that the prospective foreign language teachers used dictionaries mostly in the production of a written text rather than during reading a text, while the prospective teachers of the Greek language stated that using a dictionary during reading a text preceded its usage when writing a text. In both categories of prospective teachers using a dictionary during listening came third. These differences might, to some extent, be justified, since the purpose of using dictionaries in their teaching is different for the two categories of teachers.

Printed or electronic dictionary and types of electronic dictionaries used. When asked whether they preferred to use a printed or an electronic dictionary, 56.3% of the students expressed preference for a printed one, whereas 38.4% would opt for an electronic dictionary. A percentage of 5.4% did not voice particular preference for either one. As for the type of electronic dictionary they preferred, the majority of students (47.5%) claimed to be using Internet dictionaries at a frequent or very frequent mode. At a much lower rate, that is 16.2%, followed those using frequently or very frequently dictionaries compiled in compact discs (CDs) and those using portable applications of electronic dictionaries at 7.5%.

As for the preference of students for printed or electronic dictionaries, findings indicated that both prospective teachers of foreign languages and those of the Greek language expressed preference to use the printed ones. However, prospective foreign language teachers who stated that they preferred electronic dictionaries represented a much greater percentage than the respective ones of the Greek language who stated that they had the same preference. Furthermore, for both categories of prospective teachers, the choice of an electronic dictionary on the Internet was predominant when asked about the form of electronic dictionary they were accustomed to using. However, the prospective teachers of foreign languages, compared to those of the Greek language, seemed to be more familiar with dictionaries compiled in CDs and portable applications of

electronic dictionaries. The answers, however, of the subjects of both surveys suggest somehow that the printed dictionary (linguistic and encyclopedic) still has the primacy over the electronic one, despite the technological progress made so far. It seems that this progress has not yet affected Greek dictionary users so much, which is a matter worth considering by the decision-makers of the official educational policy when they implement reforms; the same finding emerged in previous studies carried out with different samples (Chatzidimou, 2008a, pp. 213-215).

Level of satisfaction with prospective teachers' competence in using a dictionary and with the dictionary's content. A particularly high percentage of 96.2% of the prospective teachers of foreign languages who participated in the research reported being satisfied with their dictionary-using skills. Regarding the satisfaction with the information included in the dictionaries they used, 80.8% found it sufficient to a high degree, whereas 18.7% were satisfied at a low degree. Only one participant responded that he/she was utterly dissatisfied with the dictionary's content.

Satisfaction rates of prospective teachers both of foreign languages and of the Greek language with their competence in using dictionaries were extremely high in both cases. The same applied for the degree of satisfaction with the information contained in the dictionary they used, with the satisfaction rate "greatly" to be slightly higher in the case of prospective teachers of the Greek language (86.0% vs. 80.8% of the prospective teachers of foreign languages). This finding suggests that the students' research sample seemed to be satisfied with the skills they had as regards dictionary use. The matter requires, however, further investigation, given the fact that dictionary use has not been systematically addressed neither by experts nor by teachers in order to enable users to handle a dictionary without particular difficulties.

Difficulties in dictionary use. For the majority of the participants, difficulties arose mostly when using a dictionary of technical terms, since 16.4% stated that they encountered a high degree of difficulty and a further 50.9% experienced a low degree of difficulty. The respective rates for the encyclopedic dictionary were 7.1% and 37.1%, for the thesaurus were 6.4% and 39.1%, for the general dictionary were 2.2% and 16.6%, and for the bilingual one were 1.6% and 19.2%. When asked what were the reasons for their difficulties in dictionary use, 29.7% of the students addressed that their dictionary did not live up to their expectations for the information they were seeking, another 27% admitted lacking knowledge of the existing types of dictionaries, and a further 19.5% did not bother to read the instructions on how to use the dictionary. Finally, 9.2% claimed lack of dictionary reference skills and 8.1% expressed the assertion that their dictionary did not contain accurate users' instructions.

The findings emerging from the study of both categories of prospective teachers suggested that the type of dictionary that they found harder to use is the technical dictionary. In contrast, again in both cases, the general dictionary and the bilingual dictionary were found in the last two positions. The type of dictionary in their possession and the one they used more frequently were said to be giving them less difficulty than all the other types (the bilingual dictionary for the prospective language teachers and the general dictionary for the Greek language teachers).

Information resources on dictionaries. University professors were acknowledged as the main source of information concerning dictionaries for 67.0% of the students participating in the research. A percentage of 47.6% acquired such information from bookstores whereas 38.9% from their fellow students. Following at distance came newspapers at 15.1%, publishers' catalogues at 10.3%, the Internet at 8.1%, and scientific journals at 7.0%.

Information sources for dictionaries seemed to be the same for both categories of prospective teachers, since they prioritized them the same way, the only difference being in the last two positions (for the prospective foreign language teachers, these were the Internet and scientific journals, and for the prospective teachers of the Greek language, the order was reversed). The fact that, in both categories, university students received information for using dictionaries by their academic professors is encouraging. It is also indicative of the high esteem that university professors hold for the role of the dictionary use in education thus motivating their own students to use them.

Parents and teachers' motivation for using dictionaries. Secondary education teachers were said to be the individuals initiating the participants into using dictionaries (56.2%). University professors followed at 50.3%, parents at 49.2%, primary school teachers at 43.2%, and at much lower rates, fellow students at 11.4%, "No one" at 10.8%, and "A third party" at 3.8%.

The extent of teaching dictionary use at schools and universities. A percentage of 25.9% of the participants of this study claimed to have been taught more than once how to use a dictionary at elementary school. The percentage appeared slightly reduced for junior high school at 22.8% and senior high school at 21.4%. On the contrary, the corresponding percentage was much higher for university, as 34.3% of the participants declared having been taught how to use a dictionary more than once at university. As to the extent, they valued the necessity of being taught the use of dictionaries during schooling and academic studies, the percentages of positive answers scaled as: (a) 73.7% found it necessary at elementary school; (b) 87.4% at junior high school; (c) 77.8% at senior high school; and (d) 80.6% at university.

A percentage of 35.5% of the participants believed it to be "Important" and another 54.6% believe it to be "Very important" for students of their own subject field to be taught dictionary use. Considerably fewer (6.0%) were those who did not consider it important, while 3.8% remained neutral and opted for the answer "I do not know".

What arises through the comparison of the two categories of prospective teachers is that the level of education in which they were taught how to use a dictionary was at large the university for prospective teachers of foreign languages, while it appeared to be primary school for the respective ones of the Greek language. More specifically, the rates of teaching dictionary use in elementary school, junior school, and senior high school were similar for both categories of university students. However, great discrepancies were observed, as noted already, in university, where prospective foreign language teachers said they were taught how to use the dictionary at twice the rate that their fellow students of Greek language did. In the question of the necessity of teaching dictionary use in the various levels of education, both categories of students seemed to reach consensus, as the percentages of those who considered it necessary were similar for all degrees of education. Finally, both categories of prospective teachers considered it important that students of the same subject were taught dictionary use, an element that should be taken into account by both teachers of primary and secondary education and academic professors.

Findings Deriving From the Application of Gamma and Analysis of Variance (ANOVA) Tests

The following statistically significant relationships emerged in relation to gender, department of studies, competence in foreign languages, performance at university studies, and year of studies.

Gender. Controlling for the variable "gender" showed that female participants used general dictionaries more frequently than male ones ($\chi^2 = 10.28$, $df = 4$, $\gamma = 0.47$, and $p < 0.05$), and the same occurred for bilingual

dictionaries ($x^2 = 14.69$, $df = 4$, $\gamma = 0.49$, and $p < 0.05$). Female participants also resorted to dictionaries more often than male ones to find the meaning of a word ($x^2 = 14.48$, $df = 4$, $\gamma = 0.40$, and $p \leq 0.01$) and its pronunciation ($x^2 = 9.55$, $df = 4$, $\gamma = 0.34$, and $p < 0.05$). It seems that female students, compared with male ones, used dictionaries more often. This differentiation requires further investigation, an endeavor we are likely to embark on in the future.

Department of studies. In examining the department of studies of the subjects who participated in this research, the following findings were made evidently:

1. The students of the Department of French Language and Literature used general dictionaries more frequently than their fellow students of the Department of German Language and Literature ($F = 3.836$; $p < 0.05$) and the same went for technical dictionaries ($F = 3.184$; $p < 0.05$);

2. The students of the Department of English Language and Literature used bilingual dictionaries more frequently than the ones of the Department of German Language and Literature ($F = 6.327$; $p < 0.01$);

3. Both the students of the Department of French Language and Literature and those of the Department of English Language and Literature used thesauri more frequently than the students of the German department; the same conclusion was drawn concerning the students of the English department when compared with those of the French department ($F = 12.781$; $p < 0.001$);

4. Both the students of the Department of French Language and Literature and those of the English Department used dictionaries more frequently than the students of the German one to check the spelling of a word ($F = 7.359$; $p \leq 0.001$), to find synonyms/antonyms of a word ($F = 7.359$; $p \leq 0.001$), and the etymology of a word ($F = 8.864$; $p < 0.001$);

5. The students of the Department of French Language and Literature used dictionaries more frequently than the ones from the Department of German Language and Literature to find examples of a word's usage ($F = 7.225$; $p \leq 0.001$) or a grammatical element ($F = 10.074$; $p < 0.001$);

6. As far as using a dictionary to seek the pronunciation of a word, it was reported that the students at the Department of French Language and Literature as well as those at the English department used dictionaries more often compared with the students of the German one, while the same was true for the students of the English department, as compared to those of the French one ($F = 23.129$; $p < 0.001$);

7. Regarding the occasions for using a dictionary, the students of the English department, compared with those of the German department, maintained to be using a dictionary more frequently when writing a text ($F = 3.503$; $p < 0.05$), during reading ($F = 3.445$; $p < 0.05$), and during listening to a text ($F = 4.028$; $p < 0.05$);

8. The students of the Department of French Language and Literature used electronic dictionaries on the Internet more frequently than the ones from the Department of German Language and Literature ($F = 5.682$; $p < 0.01$);

9. The students of the Department of German Language and Literature opted for the answer "I do not use any sources of information concerning dictionaries" more often than the students of the French department ($F = 6.748$; $p \leq 0.001$);

10. Concerning the people who urged the participants to use dictionaries, the students of the Department of French Language and Literature declared to a higher degree than those in the other two departments that it was their university teachers who motivated them to use a dictionary ($F = 17.731$; $p < 0.001$). By contrast, the students of the Department of German Language and Literature asserted to a higher degree than those of the French department that "No one urged them to use a dictionary" ($F = 3.086$; $p < 0.05$);

11. In the question of teaching the usage of dictionaries, the students of the Department of French Language and Literature declared to a higher degree that they were taught to use a dictionary at school in comparison with the students in the other two departments ($F = 6.131$; $p < 0.01$). Furthermore, both students of the French and English departments stated to a higher degree than their fellow students of the German one that they were taught how to use a dictionary at the university ($F = 26.718$; $p < 0.001$);

12. The students of the Department of French Language and Literature considered the teaching of dictionary use necessary in high school ($F = 4.883$; $p < 0.01$) and university ($F = 4.502$; $p < 0.05$) to a greater extent than those of the German department;

13. Finally, both the students of the French and English departments seemed to attach more importance to the need for students in the same disciplines as their own to be taught how to use a dictionary than their fellow students in the German one ($F = 9.157$; $p < 0.001$).

These findings seem to indicate that the students of the departments of English and French language and literature were more informed and knowledgeable in using dictionaries than those in the Department of the German Language and Literature. The assumptions made are that the students in the departments of English and French language and literature had to achieve higher scores in order to be admitted to the university or that their academic curriculum is more adapted to using dictionaries, but these aspects need further investigation.

Foreign language competence. With reference to foreign language competence, the findings show that those who were competent in three or more foreign languages used technical dictionaries more often than those who spoke fewer than three foreign languages ($\chi^2 = 10.47$, $df = 4$, $\gamma = -0.34$, and $p < 0.01$). They also showed preference to use both the printed and the electronic dictionaries without indicating particular inclination for either ($\chi^2 = 11.69$, $df = 2$, $\gamma = -0.37$, and $p < 0.01$), they used an electronic dictionary in the form of CD more often ($\chi^2 = 8.26$, $df = 4$, $\gamma = -0.31$, and $p < 0.01$) and they were taught how to use a dictionary more frequently in high school ($\chi^2 = 5.84$, $df = 2$, $\gamma = -0.33$, and $p < 0.05$). It seems that students who spoke three or more languages were more knowledgeable and familiar with the various parameters of the uses of dictionaries being investigated in this research. This could perhaps be seen as normal, since using dictionaries in learning a foreign language is considered an essential prerequisite for the effective learning of the language.

Performance at university studies. The following statistically significant relationships arose from the correlation of the variable “performance at university”:

1. The students who reported having “Excellent” academic performance in current studies had a greater degree of possession of a technical terms dictionary compared with those who had “Good” performance ($F = 3.045$; $p < 0.05$) and they used dictionaries more often to check the spelling of a word ($F = 4.536$; $p < 0.05$);

2. The students who had “Very good” performance reported to use a dictionary more often to find synonyms/antonyms of a word compared with their colleagues who had “Good” performance ($F = 3.494$; $p < 0.05$), and were satisfied to a greater extent with the information their dictionaries provide ($F = 4.144$; $p < 0.05$);

3. The students with “Excellent” performance in their studies were informed from newspapers about dictionaries to a greater extent than those who had “Very good” and “Good” performance ($F = 5.143$; $p < 0.01$).

It would not be too farfetched to assume that, based on the findings, using dictionaries is associated in some way with academic performance at the university—if not directly, at least indirectly.

Year of studies. The correlation of the variable related to the year of studies showed the following relationships:

1. Compared to the first year students, the students who were in their fifth or higher year of studies used technical terms dictionaries more often ($F = 3.325$; $p < 0.05$). Also, they referred more frequently to dictionaries to find particular grammatical elements ($F = 3.001$; $p < 0.05$). On the other hand, the first year students more often chose “Someone else” (apart from their parents, their primary and secondary school teachers, their professors at the university, and their fellow students) when answering the question “Who urged you to use dictionaries?” ($F = 2.952$; $p < 0.05$);

2. The participants who were in their fourth year of studies used bilingual dictionaries more often in comparison with both the ones in their first and third years of studies ($F = 3.717$; $p < 0.01$);

3. Compared with the first year students, both the students of the fourth year and those who were in their fifth year of studies or higher fell back on a dictionary more often to find the pronunciation of a word ($F = 4.669$; $p \leq 0.001$);

4. The students of the first year of study, compared to the students of all the other years (second, third, fourth, and fifth year or higher), claimed to have been taught how to use a dictionary at the university to a lower degree ($F = 14.014$; $p < 0.001$);

5. The students who were in their fourth year of studies considered the teaching of dictionary use in high school more necessary than the third year students ($F = 2.710$; $p < 0.05$).

The academic year of the students who participated in the research seemed to positively influence students to use dictionaries since it was apparent that the higher the year of studies, the more frequently students used a dictionary, referred to it, and maintained that they had become familiar with it.

Conclusions

The results of the present research depicted that the prospective teachers of foreign languages who participated in the study predominantly possessed and used a bilingual dictionary, as was expected, owing to the nature of their field of studies. Nevertheless, only a minimal number was those who claimed to pay a considerable amount of attention to the introduction or the preface of a dictionary. This fact makes it imperative that they be informed and trained, as the introduction/preface constitutes a basic part of every dictionary, containing important information that may prove essential for its effective usage⁴.

According to the participants' responses, what prevailed as an outstanding reason for using a dictionary, as anticipated from findings of previous relative research (Chatzidimou, 2007b, p. 97; Chi, 2003, p. 363), was looking up the meaning of a word. Other reasons that would make them resort to using a dictionary, though in fewer occurrences compared with searching for meaning, were spelling, finding examples of using a word within context, etymology, encyclopedic information, and seeking synonyms/antonyms⁵. For the majority of the participants, finding out how a word is pronounced or its grammatical context did not appear to be a substantial enough reason to use a dictionary. Interestingly enough, the participants quite often adopted the productive usage of a dictionary when writing and reading texts. This finding may carry considerable value in lexicography, since there is a difference in the planning and writing of a dictionary when it comes to choosing whether its orientation will be productive (Rundell, 1999) or receptive (Scholfield, 1999).

⁴ For more on the study of the preface of a dictionary before using it, cf. Chatzidimou (2008a, p. 65; p. 348, including bibliography).

⁵ Other studies of the author of this text conducted from 2004 onwards came to these findings, only with slight fluctuations and a different sample, cf. Chatzidimou (2008a; 2013).

Additionally, the participants' principal preference for using printed dictionaries rather than electronic dictionaries was overtly expressed⁶. The difference between the two types of dictionaries, however, was consistently intense primarily amongst the prospective teachers of the Greek language, 70% of whom opted for the printed dictionary. The fairly higher degree of familiarity and the more frequent use of electronic dictionaries demonstrated by prospective teachers of foreign languages could most likely be attributed to the development and variety of dictionaries available that address their subject of studies and their interests.

Moreover, the participants appeared to be thoroughly satisfied with their competence in using dictionaries and the information contained in the dictionaries they used. This display of self-esteem of the students as dictionary users is confirmed by other relative research data (Chatzidimou, 2007a, pp. 60-61; Hartmann, 1999, p. 47). This is very likely the reason why students ascribed the difficulties they encountered when using a dictionary primarily to shortcomings of the dictionary itself and not so much to their personal ignorance of types of dictionaries or their indifference to the instructions of how to use them. The type of dictionary that seemed to cause distress to the participants was the technical terms dictionary. Therefore, it could be suggested that incorporating the study of such dictionaries in the lesson plans of university teachers might prove of some use in familiarizing students with their contents. It is notable that the number of participants possessing such a dictionary was rather limited.

On the other hand, it is worth highlighting that the research participants indicated their university teachers as their cardinal source of information concerning dictionaries. Their secondary school teachers were recorded second regarding the people who urged them to use dictionaries. Another element deriving from participants' responses was that dictionaries play a considerably significant role in their academic studies, as more than 30% declared that they were taught how to use a dictionary at the university. The proportion may be considered relatively low, bearing in mind that it concerns prospective foreign language teachers, whose main vocation will be teaching a foreign language. The proportion was, however, higher than the corresponding percentages for the elementary and secondary education, where the scarcity of teaching dictionary usage prevailed. Finally, the participants seemed to consider the teaching of dictionary use essential throughout all levels of education, primarily in high schools and universities, while 90% regarded it as important or highly important for students in the same subject field as themselves⁷.

In conclusion, from the results elicited by the correlation of variables, one could set forth that the students of the Department of French Language and Literature had the closest relationship with dictionaries, as manifested in the statistically significant relationships that emanated from several parameters concerning dictionary use. The familiarization of the students of the above mentioned department with dictionary use is probably higher than in the other two departments, however, an element deserving further investigation. Some more interesting findings would include the type of dictionary that participants find difficult to use, the technical terms dictionary that is, which is more frequently used by multilingual students who are competent in three or more foreign languages, students with exceptional performance in their studies regardless of the year of studies, whereas students in the diametrically opposite categories seem to avoid using this particular type of dictionary to a high degree. Despite the interpretation given to the findings by the researcher of this study, they

⁶ For the same findings, cf. also Chatzidimou (2008a), the participants of this research were teachers of primary and secondary education from former experimental schools in Greece.

⁷ For sources of user information and the need to use the dictionary in primary and secondary education, cf. also Chatzidimou (2008a; 2009; 2013).

constitute in themselves a separate field of research that requires further investigation, likely to be conducted in the near future.

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