A preliminary study of learning strategies in foreign language instruction: Students' beliefs about strategy use[1]

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Abstract

The purpose of the present study was to identify the range of strategies reported to be used by university students learning English as foreign language and to determine whether the reported strategies vary, depending on the proficiency in foreign language, gender, knowledge of more than one foreign language and career orientation of the students. 117 students filled in a questionnaire. The results showed that university students use learning strategies to a high degree. No significant effects of gender, career orientation and knowledge of more than one language was found. On the contrary, there was a significant effect of language proficiency on the use of *metacognitive strategies.*

Keywords: learning strategies, cognitive strategies, metacognitive strategies, socio-affective strategies

1. Research background

The literature on learning strategies in second language acquisition emerged from a concern for highlighting the characteristics of effective learners. By the term "*learning strategies*" we mean the "steps taken by learners to enhance their own learning" (Oxford 1990: 1). O' Malley and Chamot (1990: 1) define learning strategies as "the special thoughts or behaviours that individuals use to help them comprehend, learn or retain new information". Oxford (1999:518) claims that the term refers to "specific actions, behaviors, steps or techniques that students use to improve their own progress in developing skills in a second or foreign language. These strategies can facilitate the internalisation, storage, retrieval or use of the new language".

According to Oxford and Nyikos (1989: 291), "the use of appropriate learning strategies enables students to take responsibility for their own learning by enhancing learner autonomy, independence and self direction". Consequently, strategies are especially important for language learning, because they are tools for active, self–directed involvement, which is essential for developing communicative competence. Appropriate language learning strategies result in improved proficiency and greater self-

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[1] We would like to thank Catherine Whitehead for reading the manuscript and revising the texts' language.

confidence (Oxford, 1990).

A lot of typologies have been proposed in order to classify learning strategies (Dörnyei 2005, O'Malley and Chamot 1990, Oxford 1985, Rubin 1975, Stern 1983). According to O'Malley and Chamot (1990: 44), whose classification is adopted in the present study, they are divided into three major categories:

1) *Cognitive strategies* that "operate directly on incoming information, manipulating it in ways that enhance learning".

2) *Metacognitive strategies* which are "higher order executive skills that may entail planning for monitoring, or evaluating the success of learning activity" and finally

3) *Social/ affective strategies* which "represent a broad grouping that involves either interaction with another person or ideational control over affect".

Various researchers have studied parameters related to choice of language learning strategies such as language being learned, language proficiency, degree of metacognitive awareness, often related to knowledge of more than one foreign language, gender, career orientation, motivation, personality traits, language teaching methods, etc. (for a detailed review see Oxford 1989).

Naiman *et al.* (1978), Oxford (1985, 1986), and Rubin (1975), have identified strategies reported by students or observed in *language learning situations* that seem to contribute to learning. More recent studies (O'Malley and Chamot 1990, Wenden 1998) emphasized on the importance of *metacognition* in learning strategy use while some others (Erhman and Oxford 1988, Green and Oxford 1995, Lynn 1994, Oxford and Nyikos 1989, Politzer 1983, Rosen 1995, Sheorey 1999) focused on the relation between the *strategy use* and the *gender*, stating that the final strategy selection by males and females is closely related to their cultural background and to the prevailing social conditions of the local community they live in.

Moreover, some researchers (Artelt, Schellhas and Lompscher, 1995, Chamot *et al.* 1987, Halbach 2000, Oxford and Nyikos 1989, Politzer 1983) found that learners with a *higher proficiency* in a foreign language tend to use a higher number of strategies (especially metacognitive) every time they face linguistic difficulties in L2, compared to those with a lower proficiency in the foreign language, whose strategy use is relatively low.

Several studies, on the other hand, have shown that *career orientation* influences choice of language learning strategies. Oxford and Nyikos (1989) and Politzer and McGroarty (1985) found that humanities, social science or education majors used

significantly more strategies than engineers.

The Greek literature on learning strategies is comparatively poor. In chronological order, first Papaefthymiou-Lytra (1987) aimed at discovering the communicating and learning strategies the learners employ to achieve maximum communicative effect in a problem solving situation with whatever knowledge of English they might have. Psaltou-Joycey and Joycey (2001) studied the effects of strategy instruction on developing speaking skills. Psaltou-Joycey (2003) investigated the kinds of learning and communication strategies employed by advanced foreign language learners and their possible relationship with factors such as students' self-evaluation of their proficiency in English, motivation and enjoyment of language learning in general. Kazamia (2003) discussed the language learning strategies of EFL civil servants in relation to tolerance of ambiguity. Γαβριηλίδου (2004) examined the strategies of pupils having Greek as a second language attending fourth, fifth and sixth grades of primary school. She also studied (Γαβριηλίδου 2006) language learning strategies employed by muslim adults having Greek as a second language and attending to Second Chance Schools. Finally, Psaltou-Joycey (2008) examined culture-specific learning strategies of students learning Greek as a second/foreign language in an academic setting.

Very important issues of language learning strategy study (such as the list of strategies preferred by Greek-speaking students of different age or the impact of strategy training programs on learning a foreign language) have not been examined.

The purpose of the present study is to investigate strategies reported by Greek university students to be used while learning a foreign language. More precisely, the major objectives of the study are:

- to identify the range of strategies reported to be used by university students learning English as foreign language,
- to determine whether the reported strategies varied, depending on the proficiency in foreign language, gender, knowledge of more than one foreign language and career orientation of the students.

2. Methodology

2.1 Sample

One hundred and seventeen randomly selected Greek-speaking students (54 boys and 63 girls) attending the Democritus University of Thrace (n_1=57 students attending the Civil

Engineering School of Xanthi and n_2=60 attending the Preschool Education Department of Alexandroupolis), who participated in English language courses, were examined.

2.2 Instrumentation

The instrument used to collect data was a 36-item, Likert-scale self-report questionnaire, which measures the frequency of strategies employed by the respondents. Its design was based on the 50-item Strategy Inventory for Language Learning (SILL)[2] and the classification of Learning Strategies proposed by O'Malley and Chamot (1990). More precisely:

- the total number of items contained in SILL was reduced,
- the SILL memory strategies made part of cognitive strategies in our questionnaire and
- the SILL social and affective strategies were examined together.

Questions 1-11 assessed metacognitive strategies, 12-26 cognitive strategies and 27-36 socio-affective strategies. The questionnaire was translated into Greek.

In addition, subjects were asked to provide personal information (age, foreign language proficiency, years of studying the foreign language, knowledge of more than one foreign language).

2.3 Procedure

This instrument was administered to the two groups during ordinary course time and it was filled in and collected on the same day. In order to ensure comprehension of the statements, the university instructors were given oral instructions.

3. Data Analysis

Descriptive statistics, such as frequencies, were used to identify the range of strategies reported to be used by the sample. A reliability analysis (Cronbachs' Alpha) was performed to examine the internal consistency of the Questionnaire. An independent sample t-test was used to check the significance of differences in learning strategies use according to gender, career orientation and knowledge of more than one foreign language and an one-way Anova model was used to check the impact of the language proficiency to strategy use.

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[2] This choice was made in order to be able to proceed to a luminous comparison between the results of the present study and those of previous surveys.

4. Results

The Cronbach's A was .786. This means a good internal consistency of the questionnaire.

The most frequent metacognitive cognitive and socio-affective strategies reported to be used by the students are presented in Tables 1, 2 and 3 respectively.

Table 1: *Metacognitive Learning Strategies' Frequencies*

METACOGNITIVE STRATEGIES	%
Try to make sense of mistakes and correct them	**48,7**
Find key words	**41,3**
Try to improve English by song listening	**38**
Try to improve English by attentive listening	**37**
Try to improve English by TV watching	**35**
Exploit crosswords for learning	**30,7**
Quick reading of a text	**29,3**
Use pcs to learn English	**26,3**

Table 2: *Cognitive Learning Strategies' Frequencies*

COGNITIVE STRATEGIES	%
Use of Flashcards	**53,3**
Write down new words for revision	**39**
Group similar words	**35,7**
Practice word spelling	**35,7**
Try to infer words' meanings using context	**27**
Try to infer texts' meaning form pictures	**30,7**
Quick reading of a text	**25**

Table 3: *Socio-affective Learning Strategies' Frequencies*

SOCIO-AFFECTIVE STRATEGIES	%
Ask for clarification	**42,7**
Self-talking to assure themselves	**35,3**
Ask questions to classmates	**35**
Conversation with a fellow in English	**31**

Results indicated no significant effects of *gender* on the reported strategy use (see Table 4).

Table 4: *Descriptive statistics for gender effect*

Strategy	Gender	Mean ± SD	t	p
metacognitive	♀	2,14± ,29	1.003	.318
	♂	2,05± ,34		
cognitive	♀	2,03± ,23	.584	.560
	♂	1,93± ,21		
socioaffective	♀	1,9± ,27	.790	.431
	♂	1,83± ,34		

It was also found that *Career orientation* had no significant influence on the choice of language learning strategies (see Table 5).

Table 5: *Descriptive statistics for career orientation*

Strategy	Career orientation	Mean ± SD	t	p
metacognitive	Engineers	2,18± ,34	.814	.417
	Preschool Education	2,13± ,28		
cognitive	Engineers	2,02± ,21	.454	.651
	Preschool Education	2,04± ,23		
socioaffective	Engineers	1,87± ,31	.728	.468
	Preschool Education	1,91± ,27		

Neither *knowledge* of *more than one foreign language* had significant effects on the reported use of strategies (see Table 6).

Table 6: *Descriptive statistics for knowledge of more than one language*

Strategy	Language Knowledge	Mean ± SD	t	p
metacognitive	Yes	2,13± ,29	.106	.916
	No	2,14± ,30		
cognitive	Yes	2,02± ,22	.466	.642
	No	2,04± ,23		
socioaffective	Yes	1,94± ,27	1.476	.143
	No	1,86± ,28		

On the contrary, the results of the one-way Anova analysis, which was employed to

test the influence of *language proficiency*[3] on the strategy use indicated that there was a significant effect on *metacognitive strategies* (F=5.348, p<.005). The post-hoc analysis using the Sidak test showed that Certificate of Proficiency holders use significantly more metacognitive strategies than First Certificate (MD=.333, p<.005) and Palso holders (MD=.5165, p<.05).

5. Discussion

The purpose of the present study was to investigate strategies reported by university students to be used while learning a foreign language. It was found that university students make use of different types of learning strategies in a high degree. Actually, adult learners –such as students– seem to consider the use of strategies as a valuable means to overcome the various linguistic difficulties. Learning strategies cannot probably guarantee the successful use of a foreign language but surely they constitute a significant precondition for it (Skehan 1989).

In this study, it was also examined whether the reported strategies vary, depending on the proficiency in foreign language, gender, career orientation of the students and knowledge of more than one foreign language.

Proficiency in second language. A significant effect of proficiency in foreign language was observed only for *metacognitive strategies.* This finding fully supports results of previous researches of Bialystok (1979), Chamot et al (1987), Oxford (1990) and Politzer (1983) who found that advanced students, because of their high level of metacognitive awareness use more often strategies such as the metacognitive ones. According to O'Malley and Chamot (1990) one of the most basic mechanisms of the metacognitive strategies is *planning,* which involves *setting goals* and using *input features* – characteristics that seem to be the most useful for performing a task. Our study revealed that the Proficiency holders of our sample scored high marks of these three techniques and alternated widely between them in order to achieve high levels of understanding. They also showed high capacity of *monitoring* (control of understanding and detecting of the appropriate information for storage), techniques which Anderson (1985) and Weinstein and Mayer (1986) consider as the key processes that distinguish good learners from poor learners. The fact that Proficiency holders used significantly

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[3] The Proficiency levels examined in the present study were the following: Certificate of Proficiency (equivalent to level C2 introduced by the Council of Europe), First Certificate, and Palso (both equivalent to level B2 introduced by the Council of Europe).

more metacognitive strategies is probably due to the fact that, as they are experienced learners, they tend to focus not on cognitive strategies which help them acquire the foreign language, but on the management of the learning situation, demonstrating thus *knowledge* (language knowledge, task knowledge) and *control* over the learning process, which are the two basic characteristics of metacognition.

Gender differences. No significant effect of gender in strategy use was found in our research. This result agrees with Psaltou-Joycey (2008) who didn't find any gender differences but contradicts previous research which revealed a significant effect of the factor "gender" upon the frequency of strategy use (Erhman and Oxford 1988, Green and Oxford 1995, Lynn 1994, Oxford and Nyikos 1989, Politzer 1983, Rosen 1995, Sheorey 1999). For example, Linn and Petersen (1985) and Demetriou and Efklides (1987) observed that males use a higher number of strategies when dealing with visual stimuli, whereas females proceed to an extensive use of strategies when having to deal with the production of synonyms, literature comprehension, reading and spelling. Γαβριηλίδου (2004) found that boys report to use more often a wider range of strategies than girls. On the contrary, Ehrman and Oxford (1989), Green and Oxford 1995, Oxford and Nyikos (1989), Politzer (1983) found a greater use of strategies by females. According to Ehrman and Oxford (1989: 260) the gender differences found in their survey "could be related to psychological type". Consequently the question arises whether other variables, that should be identified, play a role in gender differences found in previous research.

Career orientation. It was also found that career orientation does not seem to influence the choice of strategies. This result contradicts previous researches of Oxford and Nyikos (1989) and Politzer and McGroarty (1985) who claimed that students of human or social sciences use more and better strategies than students of mathematics or physics. Nevertheless in the study of Politzer and McGroarty (1985) the mathematics and physics students who used fewer strategies were of Asiatic origin and, as it was supported in other studies (O' Malley *et al*. 1985), these students do not use 'reliable' strategies or do not use strategies at all. It could be said that the career orientation does not seem to influence the strategy use itself but in combination with other parameters such as motivation, knowledge of more than one language, and so on.

Knowledge of more than one foreign language. Finally, despite our hypothesis based on Vygotsky (1986) that knowledge of more than one foreign language raises students' metacognitive awareness, and thus would be related to choice of metacognitive

strategies, this factor had no significant effects on the reported use of strategies. This finding should be reexamined with a different sample, in order to arrive to more safe results.

6. Conclusion

Our research provides many insights about variables influencing the choice of learning strategies by university students. We have demonstrated the effect of proficiency in foreign language on choice of metacognitive learning strategies. This study can contribute to the elaboration of specific curricula of English as a foreign language for university students.

More research using a larger sample is required for further investigation of gender differences and the effect of more than one foreign language in strategy use.

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