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Is there a correlation between reported language learning strategy use, actual strategy use and achievement?[1]

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ABSTRACT: This small-scale study tries to explore the full range of possible language learning strategies across skills in relation to learning achievement, with an emphasis on the skill of writing. Reported frequency of language learning strategy use is correlated with actual strategy use and ratings of task performance on consciousness-raising communicative tasks in an EFL context.

RESUMO: Este estudo em pequena escala explora toda uma gama possível de uso de estratégias de aprendizagem de língua por habilidade em relação ao sucesso da aprendizagem, dando ênfase à produção escrita. A freqüência registrada do uso de estratégias de aprendizagem de língua é correlacionada com o uso de estratégias realmente utilizadas e com a aferição do desempenho em tarefas comunicativas de conscientização-lingüística em contexto de ILE.

KEYWORDS: learning strategies, reported frequency, actual strategy use, learning achievement, consciousness-raising communicative tasks.

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[1] This paper is an abridged version of a term paper written as a partial requirement for my doctorate.

LANGUAGE LEARNING STRATEGIES

PALAVRAS-CHAVE: estratégias de aprendizagem, freqüência reportada, real uso de estratégias, desempenho, tarefas comunicativas de conscientização-lingüística.

INTRODUCTION

The developments in second language acquisition (SLA)[2] research over the years have been of several kinds. As far as fields of inquiry are concerned, whereas much of the earlier work focused on the linguistic properties of learner language and was psycholinguistic in orientation, later work has attended to the pragmatic aspects of learner language and has adopted a sociolinguistic perspective. Another area which has been gaining ground in the comprehensive field of the SLA research in the last ten years or so, especially in North America, is the study of learning and of learners themselves, notably the study of language learning and language use strategies. The favorable results that have stemmed from such investigations have provided, if not evidence, strong indication that the use of language learning and language use strategies imply achievement in the foreign language and also contribute to make learners more independent.

The focus of this small-scale study is to investigate the full range of possible strategies across skills in relation to learning achievement, with an emphasis on the skill of writing. Thus, I not only consider a broad range of learning strategies that potentially

[2] SLA = Second Language Acquisition. Acquisition, otherwise mentioned, is used as an umbrella term to encompass both acquisition and learning, without the implications of the krashenian theory (Krashen, 1982), except when making reference to Krashen himself. SLA is also used as a cover term for both second and foreign language acquisition.

contribute to students' efforts at learning an L2[3], but also look at language learning/use strategies as far as writing is concerned. More specifically, I want to correlate reported frequency of language learning strategy use with actual strategy use and ratings of task performance on writing tasks which explore form-focused instruction[4] within a communicative approach (CLT)[5].

THEORETICAL BACKGROUND

Recent books dealing with linguistics, applied linguistics, and more specifically with SLA have begun to include reviews of the language learning and language use strategies literature (cf. Ellis, (1994), Gass and Selinker, (1994), Skehan, (1998)). More often than not, they include a discussion about the two terms, which, in spite of the fact that will be used interchangeably in the present paper, may not refer to exactly the same phenomenon. This section deals with working definitions of language strategies and the criteria for their classification which have given support to the analysis to be developed.

[3] L2 is used to refer both to a second and/or foreign language as distinct from L1 = mother tongue.

[4] Form-focused instruction (FFI) is understood "to refer to pedagogical events which occur with meaning-based approaches to L2 instruction in which a focus on language is provided in either spontaneous or predetermined ways." (Spada, 1997, p. 73).

[5] CLT (Communicative Language Teaching) "is based on the premise that successful language learning involves not only a knowledge of the structures and forms of a language, but also the functions and purposes that a language serves in different communicative settings. This approach to teaching emphasizes the communication of meaning over the practice and manipulation of grammatical forms." (Lightbown and Spada, 1993, p. 119-120).

LANGUAGE LEARNING STRATEGIES

On defining language learning and language use strategies

First of all the concept of strategy itself is somewhat fuzzy in the sense that a strategy may be said to consist of "mental or behavioral activity related to some specific stage in the overall process of language acquisition or language use" (Ellis, 1994, p. 529, emphasis mine). Therefore, it may have dual interpretation from the very start since strategies may be perceived of as behavioral (cf. Oxford, 1990) and consequently observable, or as mental and consequently more difficult to be observable, or both (Weinstein and Mayer, cited in Ellis, op. cit.). According to Ellis (op. cit., p. 530), a distinction is often made between three types of strategies: production ("an attempt to use one's linguistic system efficiently and clearly with a minimum of effort"), communication ("attempts to deal with problems of communication that have arisen in interaction"), and learning ("an attempt to develop linguistic and sociolinguistic competence in the target language"). However, as Tarone, cited in Ellis (op. cit.) observes, these distinctions, although important, are not clear cut and do not allow for an interpretation of whether a strategy would be motivated by a desire to learn or a desire to communicate (cf. Cohen et al., cited in Cohen, 1998).

Cohen (op.cit.) seems to solve (or not?) the problem when he proposes a broad definition of second[6] language learning and second language use strategies by providing an umbrella term "second language learner strategies" to encompass both "second language learning and second language use strategies". Taken together, he says

> they constitute the steps or actions consciously selected by learners either to improve the *learning* of a second language,

[6] Second language is used by Cohen to refer both to the language spoken in the community and also at times as a generic term to refer to both second and foreign language teaching.

> the *use* of it or both. [...They are] processes which are consciously selected by learners and which may result in action taken to enhance learning or use of a second or foreign language [...] (Cohen, op. cit., p. 4-5, emphasis his).

Given that I will be working with reported language strategies (perhaps more of the learning type) and actual language strategies (perhaps more of the language use type) the fact that there may be a linkage between them, in broad terms, helps in the analysis because the same criteria for classification may be utilized to carry on the comparison. Different frameworks have been put forward besides the one adopted in this study (cf. for example Bialystok's, (1990); Gasper and Kellerman's, (1997), among others). Nonetheless, as far as I am concerned, no study to date has really been able to distinguish language learning from language use strategies clearly, because research findings have not made it definite whether learners use strategies for one purpose or both.

Criteria for classification

The most widely used classifications for language learning and language use strategies are those of O'Malley and Chamot (1990) and Oxford (1990), the latter of which the one really used in the present investigation. In fact, they provide similar classifications, but Oxford's is an all-embracing scheme for learning strategy use, based on virtually all the previous work and used in developing the Strategy Inventory for Language Learning (SILL), an instrument of data collection, and the inventory used in this investigation.

Oxford's scheme (1990), the one favored in this study, is more comprehensive and detailed. It is also more systematic because it links individual strategies, as well as strategy groups, with each of the four language skills, listening, reading, speaking and writing, the latter of which the focus of our attention. It is

evident throughout Oxford's work her preoccupation with teaching/learning improvement, which would ultimately end up in learners' autonomy, and her effort to translate her experience as a teacher into useful advice for teachers and learners in general. In Oxford's view, language learning strategies are

> actions taken by second and foreign language learners to control and improve their own learning. Learning strategies are keys to greater autonomy and more meaningful learning. Although learning strategies are used by students themselves, teachers play an important role in helping students develop and use strategies in more effective ways. (Oxford, op. cit., p. ix)

Oxford (op. cit., p. 14-21) divides strategies into two major classes: Direct and Indirect. These are subdivided into a total of six groups: (Memory, Cognitive, and Compensation under the direct class) and (Metagognitive, Affective and Social under the indirect one). The six strategy groups are further subdivided into a total of nineteen (19) strategy sets, which are subdivided even further. The entire system includes sixty two (62) strategies.

Regarding Direct strategies (which are more directly associated with the learning and the use of the target language in the sense that they require the mental processing of the language), Memory strategies "[...] store and retrieve new information"; Cognitive strategies "[...] enable learners to understand and produce new language by many different means", ranging from repeating to analyzing expressions to summarizing; Compensation strategies "[...] allow learners to use the language despite their often large gaps in knowledge" (Oxford, op. cit., p. 37). As to Indirect strategies (which help the learning process internally, i.e. which support and manage language learning without directly involving the target language), metacognitive strategies "allow learners to control their own cognition"; Affective strategies "help to regulate emotions, motivations, and

attitudes"; and Social strategies "help students learn through interaction with others" (Oxford, op. cit., p. 135). Based on the foregoing classification, Oxford organized a structured language strategy questionnaire, the SILL – Strategy Inventory for Language Learning, which will be used as an instrument to collect and analyze part of the data.

LITERATURE REVIEW

Research on language learner strategies has been classified into three general categories: studies to define and classify strategies, studies to describe strategies in greater detail and the types of tasks with which the strategies are effective, and studies to validate the influence of strategic processing on learning. O' Malley and Chamot (op. cit.) as well as Ellis (1994) note that most of the research on language learning/use strategies has been cross-sectional and correlational in nature.

The 'good language learner' (Naiman et al. 1978; Green and Oxford, 1995, cited in Cohen, op. cit.) studies have suggested that higher-proficiency learners use more strategies than lower-proficiency ones. Nevertheless, there are studies that indicate just the opposite (Chen, 1990, cited in Cohen, op.cit.). Chen's investigation is, however, a small-scale study in which it was found that the higher-proficiency learners (six students) used fewer communication strategies when communicating concrete and abstract concepts to a native speaker, even though they used those strategies more effectively than the lower-proficiency learners (six students as well). Similarly, another concern in this field of research has been the description of strategies used by more effective versus less effective language learners, since positive learning outcomes are connected with effective/successful learners. O' Malley and Chamot (op. cit., p. 140), reporting on Russian and Spanish studies, say that

> In general, more effective students used a greater variety of strategies and used them in ways that helped the students complete the language task successfully. Less effective students not only had fewer strategy types in their repertoires but also frequently used strategies that were inappropriate to the task or that did not lead to successful task completion.

Also, much of the work on language learner strategies has been based on the assumption that there are 'good' learning strategies (Rubin, 1975; Reiss, 1975, cited in Ellis, op. cit.; O'Malley and Chamot, op.cit), but some studies (Van Naersson, 1985; Gillette, 1987, both cited in Ellis, op. cit.) found no difference between high and low-proficiency groups on specific strategies. Consequently, "the total number or variety of strategies employed and the frequency with which any given strategy is used are not necessarily indicators of how successful [learners] will be on a language task" (Cohen, op. cit., p. 8-9). In view of these mixed results more studies are still made necessary.

One such study is that of Paiva (1997), who reports on a large-scale three-stage research carried out at Universidade Federal de Minas Gerais (UFMG) set out to correlate language learning strategies use with successful and unsuccessful language learners. Data were collected over three years by means of individual written reports about students' experience as language learners and Oxford's Strategy Inventory for Language Learning (SILL), a version translated into Portuguese by the researcher herself. Students indicated 'reading' in their written compositions to be most the widely used strategy to learn the foreign language, followed by 'going to the movies'. According to Paiva (op. cit.), this proves evidence to the hypothesis that learners learn in spite of methods and their teachers. The study reveals that more successful learners have reported to have used more strategies than less successful ones. On the whole, metacognitive strategies were used most frequently, especially of the type "I pay attention

when someone is speaking English", and Memory and Affective strategies were said to have been used with less frequency. In the correlation between strategy use as reported to have been used by them in the SILL with achievement, as measured by scoring their written performance, successful learners (grades 90-100) reached higher average in Compensation strategies and less in Memory strategies. Less successful learners (grades 0 to 59) used metacognitive strategies more and Affective strategies less than any others. More successful learners also used Cognitive, Compensation and Social strategies more than less successful ones. In Paiva's view, the fact that successful learners use social strategies more than less successful ones may explain their success partly. Her final comments favor learners' independence and strategy teaching:

> It is teacher's duty, in the light of a humanistic approach, to stimulate his students to be responsible for their learning, helping them to become conscious about their cognitive processes and training them in the use of more effective strategies.(Paiva, op. cit., p. 322; Translation mine.)

In spite of the fact that there has been questioning whether there are more effective strategies than others or not (Ellis, op. cit., p. 558; Freitas, op. cit., p. 70; Lessard-Clouston, 1997, p. 8), there seems to be some indication that there is a relationship between strategy use and specific tasks (Cohen, op.cit.), which, in my view, indicates a tendency in favor of more effective strategies after all.

More recently, there have been studies on the benefits of strategy training even though there are mixed reactions to the language strategies training movement in the literature (cf. Cohen, op.cit.), mainly because there have been few empirical studies to demonstrate that such training has "irrefutable benefits". Perhaps one of the most important of these interventionist studies on the impact of strategies-based

instruction (SBI)[7] was the one conducted at The University of Minnesota under the responsibility of Cohen, Weaver and Tao-Yan Li (Cohen, op. cit., p. 107-156). It set out to examine the contribution that formal SBI might offer learners in university-level foreign language classrooms, with a particular focus on the skill of speaking. They adopted a multi-method approach utilizing a battery of speaking tasks which were performed on a pre-post test basis, the SILL, strategy checklists and verbal protocols, in a cross-sectional fashion. The findings reached a high degree of detail to be reported in this paper, but as a whole, the study revealed that SBI makes a difference; the experimental group outperformed the comparison group in one of the tasks, and in the subscale measures of the same task. However, as far as frequency of strategy use is concerned in view of task performance, results are complex. There were several significant positive correlations that only appeared in the experimental group data, but there was also negative correlation. By the same token, there were some significant correlations in the control group and cases in which both groups had similar results. The researchers believe, however, that the investigation points to the fact that certain strategies may be associated with specific tasks as a result of the application of the strategy checklist. In relation to the SILL, as a general measure of the patterns of strategy use, there were several positive correlations, i.e. gain in task performance as related to reported strategy use. As to verbal reports, two types of data were yielded: insights about students' strategy use and personal reactions and feedback on checklists as a means of data gathering.

Finally, I will very briefly comment on the pre-pilot study for my PhD (Vidal, 1998, not published), when I first attempted to use verbal protocols as an instrument for data collecting. I set

[7] "SBI (Strategy-based instruction) is a learner centred approach to teaching that extends classroom strategy training to include both explicit and implicit integration of strategies into the course content." (Cohen, 1998, p. 81)

out to investigate possible relationships between instructional differences, learning outcomes, and negotiation of meaning/form to measure opportunities for interlanguage stretching in the EFL classroom when written production is the target (still my focus of attention for the PhD). Different types for consciousness-raising communicative tasks were employed, which after being rated (product evaluation), and together with transcripts of think-aloud protocols (process evaluation) constituted the data for analysis. My aim was to find out whether instructional differences, in terms of task types, contributed to variation in improvement. In addition, I sought to correlate such improvement with interactional negotiation observed during the process in which students reflect on their linguistic production. One part of the investigation was successful; the one which associated improved achievement with task type but only in view of the evaluation of written performance. The think-aloud procedure, which was included as a resource to see how learners negotiated within themselves, did not give me enough evidence of negotiation and/or strategy use. One of the reasons which made me want to use such a type of instrument again was, on the one hand, the very fact that I failed in my first attempt and on the other, and more seriously so, the fact that I see verbal protocols as a means of disclosing processes which otherwise would have been kept hidden and intend to use them as one of the research tools in the PhD dissertation as well.

I must confess that my failure in working with the think-aloud procedure was due to the fact that, in the first attempt, I naively did not train my students in doing so. Therefore, I have, for this time, prepared warm-up sessions which were applied before the students started working daily on the assigned task.

METHODOLOGY

In this section I deal with the research proposal more fully: the subjects, method of analysis and data collecting procedures, the instruments, and the research questions.

Subjects

Eight (8) Brazilian English-Portuguese majors from UFF, four (4) in their fourth semester and another four (4) in their second semester, picked out by their regular English teachers, at the researcher's request, participated in this mini-study. I preferred to work with UFF students for two reasons: first, because I work at the institution; and second, because since they are taking up teaching as a career it might be the case that they would feel motivated to take part in the research due to the nature of the investigation itself. The students were considered of the upper-intermediate level of proficiency by their teachers. None had any idea whatsoever about what the investigation would be but agreed to collaborate. There were two male and six female students in their twenties but one, who was thirty-five. Due to class time constraints, the data were collected in the English staff room during non-classroom hours, with the subjects audio taping their responses to the tasks at their individual desks. Data collection lasted a month because the think-aloud work only allowed audio taping two students per day so that one's talking aloud would not interfere with that of the other. They had two hours to prepare their text, including the warm-up session, and some collaborative work, which was also audio taped, but which is not taken into consideration in this paper/analysis.

Method of analysis and data collection procedures

A multi-method approach was chosen to carry out the analysis, namely triangulation, not only because this type of methodology has been gaining ground lately but mainly because

it has been considered to be suitable to account for studies which combine product and process approaches. By triangulation it is meant "the use of two or more methods of data collection in the study of some aspect of human behavior" (Cohen and Manion, 1994: 233). To collect and analyze data I used:

a) a battery of writing tasks, which differed in the way language was dealt with – an aspect to be analyzed in the research to be conducted as a requirement for my doctorate. The students' written production was rated according to analytic and holistic grading criteria adapted from Hedge's (1988) and Omaggio's (1986), along with Swain's (1985) as well;
b) the 50-item Strategy Inventory for Language Learning (SILL, Oxford, 1990), Version for Speakers of Other Languages Learning English, and specifically the version translated into Portuguese by Paiva (1997); and
c) verbal protocols as the result of the think-aloud technique concurrent with the written text.

Instruments

The battery of writing tasks

A writing task battery was designed and piloted[8] and consisted of a series of four writing tasks, to be carried out first individually and then in dyads[9], each of which approaching focus on form in a different way. In all four tasks the learners were supposed to produce a written text about each, which was analytically rated according to a set of five-point (Excellent to Very Good, Good, Average, Fair to Poor, Poor), multi-trait scales designed to assess content, vocabulary, grammar/ usage and

[8] The writing task battery was mainly designed and piloted to collect data for the Pilot Study of my PhD dissertation.
[9] The collaborative work is not analyzed in this investigation.

mechanics. The holistic scoring also took into consideration the same set of five-point scale. The grammatical error counts were translated into accuracy scores by considering: in the case of syntactic errors, relative to the number of verbs produced; in the case of verb errors, relative to the number of verb forms produced, and in the case of preposition errors, relative to the number of obligatory contexts for prepositions (cf. Swain, 1985). The total rating score of individual learners, i.e. their average score on the four tasks, together with each learner's individual score on Task 1[10] were used in this study as a parameter for successful learning to be correlated with reported frequency of strategy use (SILL) and with strategies actually used and revealed in the think-aloud protocols.

The four consciousness-raising (C-R)[11] communicative writing tasks were expected to have learners operating "at the outer limits of their current abilities" (Long, 1989, p. 13) in the sense that they would be stretching their linguistic resources so as to produce grammatically rich language, i.e. correct and appropriate language. A second language acquisition (SLA) theory in accordance with such a proposal would see the roles of input/interaction[12] and output as complementary to one another in the whole process of language acquisition and interlanguage

[10] Since data transcription is extremely time consuming, transcriptions of verbal protocols of Task 2, Task 3 and Task 4 were not finished at the time this final term paper was to be handed in (doctoral programme's requirements). Therefore, besides students' average score, the mean, after their score on each of the four types of task, only learners' individual grades on Task 1 are taken into consideration because only the think-aloud of Task 1 was transcribed and analyzed.

[11] C-R – "the deliberate attempt to draw the learner's attention specifically to the formal properties of the target language."(Rutherford and Sharwood Smith, 1987, p. 274)

[12] Interaction is understood not only as social interaction but also as the process by which the learner exercises his internal mechanisms. (cf. Pica, 1996, and Vidal, 1999)

development and has much to do with the work of Gass (1988, 1997); Gass and Selinker (1993); Swain (1985); Kowal and Swain (1994); Ellis (1994, 1997), besides Long (1985). A discussion of each of their views, however, would be outside the scope of the present paper.

The Strategy Inventory for Language Learning (SILL)

After having finished the four tasks, all the subjects completed the Portuguese version (Paiva, 1997) of the 50-item Strategy Inventory for Language Learning (SILL) (Oxford, 1990) even though they were English majors[13]. This version of the SILL (for speakers of other languages learning English) represents a set of strategies for language learning across skills. Some of these strategies are more general in nature (e.g. "I pay attention when someone is speaking in English") while others are more specific (e.g. "I say or write new English words several times"). As pointed out by Cohen (op.cit., p. 117), "these strategies are not linked to any specific task, but rather represent strategies that the learner could use throughout the language learning process" and indicate frequency of use of strategy type along each category, six in all. Strategy use is determined through students' self-ratings of the frequency of use of different strategies, as suggested and counted accordingly. The underlying assumption associated with the SILL is that "more reported use of all strategies included in the questionnaire is inherently more beneficial for language learning than less reported use of them" (Cohen, op. cit., p. 121).

Verbal protocols/Think-aloud protocols

While the students wrote their written texts they recorded their thoughts. They were instructed that they were to say their

[13] I preferred the Portuguese version to avoid potential misinterpretation.

thoughts in Portuguese unless they really felt the need to use English. There were warm-up sessions before each task to train students to express their thoughts aloud concurrently with their written production, which basically consisted of problem solving activities. Only after the warm-up session, did they start working daily with the task focus of the data collecting procedures. Despite my effort to train them, student number 6 did not manage to do the concurrent think-aloud. She was allowed, then, to record her thoughts right after the written production. All the others seemed to do just fine. The audio recorded versions of the protocols were transcribed, following an adapted version of Allwright and Bailey's (1991, p. 222-223) conventions for classroom discourse, and analyzed and coded following a reduced and slightly adapted version of Oxford's (op. cit., p. 327-330) Strategies Useful for Writing. The categories used in this study, in common with Oxford's (op. cit.), nevertheless, are data driven, in that only after a preliminary analysis of all the data had been conducted were the categories identified/ established and a second, and final analysis carried out.

Some of the 16 data-driven subcategories (out of 45) are listed below. A detailed explanation of each of them, however, would be outside the scope of the present paper:

B [14] – Cognitive – Practicing – Recombining: E.g. "... como é que eu vou juntar isso aqui? ... so I realized it wasn't quite what I was looking for... that's why ... that's why I started computer science..." (Student 8)

B – Cognitive – Analyzing and Reasoning – Reasoning Deductively: E.g. "...deixa eu ver...let me see...um tempo no passado quando ele fazia isso né? Esse último parágrafo aqui tá falando da experiência dele ... antes tinha escrito antes tinha se tornado um escritor de sucesso antes aqui ah... aqui é o próprio autor que tá falando." (Student 4)

[14] Capital letters in alphabetical order for each main category follows Oxford's own suggestion for the SILL and are adopted there as well.

B – Cognitive – Analyzing and Reasoning – Transferring: E.g. "...hum for example in Portuguese we xx tend to use the past tense in all constr – constructions" (Student 4).

B – Cognitive – Analyzing and reasoning – Analyzing expressions: E.g. "... fortunately, pera aí vem de fortune for-deixa eu escrever fortune for...tune fortu-na-tely fortunaly. Não tem t nenhum aqui não" (Student 7)

C – Compensation – Overcoming limitations in speaking or writing: E.g. "I won I hum won eu esqueci como é que se diz troféu vou botar prize.....I won a prize" (Student 2)

D – Metacognitive – Arranging and planning your learning – "Bom como eu tenho que escrever sobre a minha experiência..." (Student 2)

D – Metacognitive – Evaluating your learning – Self-monitoring: E.g. "...at the beginning, beginning, double g? begin beginning double n, double n." (Student 3)

D – Metagonitive – Evaluating your learning – Self-evaluating: E.g. "Acho que vou ter que arranjar uma frase para fechar, isso já está ficando grande demais." (Student 2)

E – Affective – Encouraging yourself – Making positive statements: "...não é bem o meu forte sou um cara caladão, mas como a gente tá aqui pra ajudar então eu vou fazer o possível..." (Student 1)

E – Affective – Lowering your anxiety – Using laughter: "Uhm o quê que eu vou fazer I have o quê que I have [laughter] uh I have... bom que tal se eu não começar com I have" (Student 1)

Once the analyses were concluded, counts done (following Oxford's (op. cit.) for the SILL and simple count for the actual strategies), tables and graphs prepared, an interpretation of all the data was carried out. The discussion of the results is presented in the next section of this paper in view of the following questions:

Question 1: What type of language learning/use strategies do learners say they use most?

Question 2: Do more successful learners report to have used more learning strategies than less successful ones? In other words, what is the relationship between reported frequency of strategy use and ratings of task performance on writing tasks?

Question 3: How do language learning/use strategies as revealed through the think-aloud procedure concurrent with writing tasks correlate with reported frequency of language learning strategy use?

Question 4: What is the relationship between language learning/use strategies and ratings task of performance on writing tasks as identified in verbal protocols?

Question 5: What is the effect of task type on strategy use?[15]

RESULTS AND DISCUSSION

Data obtained with the SILL questionnaire showed that Metacognitive strategies were the ones said to be chiefly used (4,2), (this number to be understood as High – Usually used (cf. Oxford, op. cit., p. 300)). Memory strategies (2,9) and Affective ones (3,3) were said to be less favored, (both interpreted as Medium – Sometimes used). This finding corroborates the study developed at UFMG (Paiva, 1997). Among the most used Metacognitive strategies are: "I pay attention when someone is speaking English" and "I think about my progress in learning English", and among the less used ones: "I plan my schedule so I will have enough time to study English". As far as Memory strategies are concerned, "I think of relationships between what I already know and new things I learn in English" was reported to be used most, and "I use flashcards to remember new English

[15] Ideally, all the research questions should have been answered in this study; however, question 5 was not answered properly because in order to do so verbal protocols of more than one type of task needed be analyzed.

words" said to be used less, Never or almost never true of me type of answer. Among Affective strategies, "I try to relax whenever I feel afraid of using English" and "I encourage myself to speak English even when I am afraid of making a mistake" were both said to be more frequently used, while "I write down my feelings in a language learning diary" was reported as never or almost never true of them. As Paiva (op. cit.) had mentioned in her study, diary writing and the use of flashcards, also reported not to have been used by UFMG's students, are not part of the Brazilian culture, hence it was not surprising the fact that the students said not to make use of them. Figure 1 illustrates overall average of reported frequency of language learning strategies by the small group of students involved in the study.

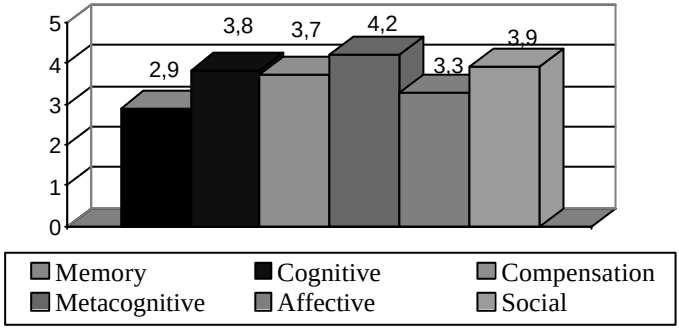

Figure 1 – Distribution of Strategy Group Overall Average by University Students (SILL)

Insofar as the relationship between reported frequency of strategy use and ratings of task performance on writing tasks, the results are somewhat blurred. Successful students, Student 6

(Mean Score 93)[16] and Student 8 (Mean Score 84,5), reached 4,9 and 4,3 respectively in Metacognitive strategies and 4,1 and 4,3 in Cognitive strategies, indeed very similar numbers. However, Student 2 (Mean Score 81) did not report to use Metacognitive strategies usually (2,9 = Sometimes used), neither did she say to use Cognitive strategies usually (3,4 = Sometimes used) as the two others did, but said to use Compensatory ones (4,2 = Usually used) much more. On the contrary, Student 5 (Mean Score 73,2) said to use Metacognitive always or almost always (4,9), and Cognitive strategies also usually (4,0). Similarly, Student 1 (Mean Score 79) also reported to use Metacognitive strategies and Compensation strategies usually (4,1 and 4,3) and scored even higher in Cognitive strategies (4,4). Interestingly enough, Students 1, 5 and 8 were the ones to score higher in the overall average (4,1; 4,0 and 4;0) respectively, but only Student 8 reached grade 84,5 in the writing tasks. Moreover, the student who scored higher in the writing tasks, Student 6 (Mean Score 93), had only 3,7 overall average in reported strategy use, less than students 1, 5 and 8. Table 1 summarizes the findings.

Table 1 – Reported strategy use (Sill) and grading scores

Nº	Score Task 1	Mean Score T1, T2, T3, T4	SILL						
			A	B	C	D	E	F	Total
1	66	79	3,2	4,4	4,3	4,1	3,5	4,8	4,1
2	85	81	2,6	3,4	4,2	2,9	2,3	2,7	3,0
3	66	67,7	2,8	3,8	4,3	4,5	2,6	4,2	3,7
4	55	73,5	3,1	4,0	3,5	4,3	4,2	2,8	3,7

[16] Mean score, the arithmetic average of scores of T1, T2, T3 and T4.

5	68	73,2	3,2	4,0	3,7	4,9	3,8	5,0	4,0
6	89	93	2,5	4,1	3,3	4,9	3,3	3,1	3,7
7	65	68,2	2,7	2,7	2,3	3,9	2,7	4,3	3,0
8	94	84,5	3,0	4,3	4,0	4,3	3,8	4,3	4,0
Total1			23,1	30,7	29,6	33,8	26,2	31,2	
Total2			2,9	3,8	3,7	4,2	3,3	3,9	

After the analysis of the verbal protocols and the identification of strategies used, I set out to see how language learning/use strategies, as revealed through the think-aloud procedure concurrent with the writing tasks, correlated with reported frequency of language learning strategy use. Figure 2 shows means of number of occurrences by strategy group overall average.

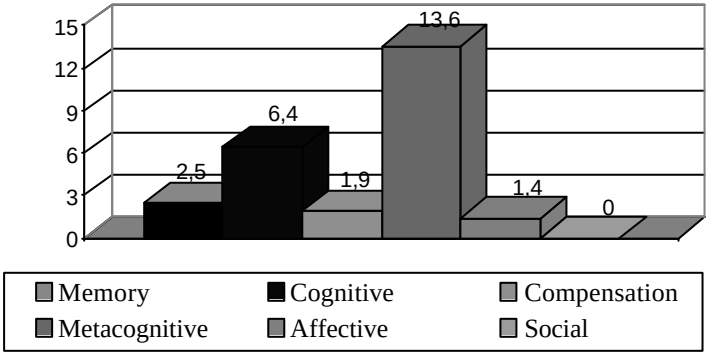

Figure 2 – Distribution of Strategy Group Overall Average by University Students (Think-Aloud: Task 1)

As clearly illustrated, Metacognitive strategies (13,6) were the ones most frequently used correlating positively with reported strategy use. Apart from Social strategies, which could not have been used because students were working individually while thinking-aloud, Memory strategies (2,5) and Affective strategies (1,4) were also less frequently used. However, in the think-aloud work, students did not make much use of Compensation strategies (1,9), whereas in the SILL they said to make use of them usually (3,7). As for Cognitive strategies, they were also very much used in comparison to the other types, but even so I identified only half the instances of occurrence I was able to identify for the Metacognitive category.

Again, the relationship between language learning/use strategies and ratings of task performance on writing tasks are complex to explain. Table 2 gives a precise view of the correlation.

Table 2 – Strategy use as identified in the think-aloud – task 1 and grading scores

Nº	Score Task 1	Mean Score T1, T2, T3, T4	THINK-ALOUD – Task 1						
			A	B	C	D	E	F	Total
1	66	79	0	1	5	9	5	0	20
2	85	81	2	9	6	16	3	0	36
3	66	67,7	5	2	0	8	0	0	15
4	55	73,5	0	7	0	4	2	0	13

5	68	73,2	5	7	0	16	0	0	28
6	89	93	1	1	0	3	0	0	5
7	65	68,2	7	22	3	27	0	0	59
8	94	84,5	7	9	1	27	1	0	45
Total1			27	58	15	110	11	0	
Total2			2,5	6,4	1,9	13,6	1,4	0	

Student 8, with the best achievement in Task 1 (94), and with mean score of 84,5, negotiated within herself and made use of 45 strategic instances while writing her task, whereas, Student 7, graded 65 in Task 1 and mean scoring not much higher (68,2), made use of 59 instances of strategic behavior, the highest count. Still intriguing, is the result of student 2, who reported to be a Medium strategy user (SILL Overall Average = 3.0), and revealed herself a better actual strategy user in the think-aloud work – 36 instances of strategic use were identified, in which many of the Metacognitive, Cognitive and Compensatory categories. In fact, Student 2 was the one to make the most use of Compensation strategies, which confirms her self-count in the SILL (4,2). Perhaps even more instigating are the results of Student 6, the one who did immediate retrospection. Her total score was 93 and her score in Task 1 was 89, indicating she was a successful learner. Her SILL overall average was High, (3.7), but even being given the chance of telling about her mental processes after task completion, she was unable to report her strategic behavior, which she must have made use of. For a more detailed view of actual strategy use per strategy group Table 3 presents the total picture.

Table 3 – Strategies used in the think-aloud of task 1

LANGUAGE LEARNING STRATEGIES					
Strategy Group	Strategy Set	Strategy	Nº Occurrences	%	Total
Memory (A)	Reviewing/ Rereading	Back-tracking	27	100	27
Cognitive (B)	Practicing	Recombining	7	12,1	58
	Analyzing and reasoning	Reasoning deductively	23	37,7	
	Analyzing and reasoning	Translating	9	15,5	
	Analyzing and reasoning	Transferring	6	10,3	
	Analyzing and reasoning	Analyzing expressions	1	1,7	
	Creating structure for input and output	Highlighting	12	20,7	
Compensation (C)	Overcoming limitations in speaking and writing	Selecting the topic	4	26,7	15
	Overcoming limitations in speaking and writing	Adjusting the message/ Using a circumlocution or synonym	11	73,3	

	Centering your learning	Overviewing and linking with already known material	4	3,6	
Metacognitive (D)	Arranging and planning your learning	Identifying the purpose of a language task	13	11,81	110
	Evaluating your learning	Self-monitoring	52	47,27	
	Evaluating your learning	Self-evaluating	41	37,3	
Affective (E)	Encouraging yourself	Making positive statements	4	36,4	11
	Encouraging yourself	Taking risks wisely	3	27,2	
	Lowering your anxiety	Using laughter	4	36,4	

Language Learning Strategies (Strategies which help develop proficiency in writing mainly) – Adapted from Rebecca Oxford, 1990

As far as the strategy group of Metacognitive strategies are concerned, the strategy set "Evaluating your learning" in the form of self-monitoring (52 occurrences) and self-evaluating (41 occurrences) far outnumbered all the other strategy types. Reasoning deductively, of the cognitive type (23 occurrences) was the strategy which followed them more closely, except for the memory strategy of back-tracking (27), which could perhaps have been coded as cognitive-repeating. Table 4 illustrates some crossing strategies too.

Table 4 – crossing strategies: reported strategy use more closely associated with *writing* (sill)/ strategy use as identified in the think-aloud – task 1

MOST FREQUENTLY USED SUBCATEGORIES			
Nº	Score Task 1	SILL (option: always or almost always true of me) – besides the ones already mentioned	THINK-ALOUD (most used strategies)
1	66	B (4,4) – I try to find patterns in English, I use the English words I know in different ways C (4,3) – If I can't think of an English word, I use a word or phrase that means the same thing	B – Self-monitoring (3), Self-evaluation (4) C – Adjusting the message (2), Selecting the topic (2) E – Using laughter (3)
2	85	B (3,4) – I look for words in my own language that are similar to new words in English C (4,2) – To understand unfamiliar words, I made guesses	B – Reasoning deductively (7) C – Adjusting the message (4) D – Self-monitoring (6), Self-evaluating (7)
3	66	C (4,3) – If I can't think of an English word, I use a word or phrase that means the same thing D (4,5) – I notice my English mistakes and use that information to help me do better	A – Back-tracking (5) D – Identifying the purpose of a task (3), Self-monitoring (4)
4	55	D (4,3) – I notice my English mistakes and use that information to help me do better E (4,2) – I try to relax	B – Transferring (4), Reasoning deductively (3) D – Self- monitoring (2), Self-evaluating (2)

		whenever I feel afraid of using English	
5	68	B (4) – I write notes, messages, letters, or reports in English D (4,9) – I notice my English mistakes and use that information to help me do better	A – Back-tracking (5) B – Reasoning deductively (2) D – Self-monitoring (9), Self-evaluating (6)
6	89	B (4,1) – I write notes, messages, letters, or reports in English D (4,9) – I notice my English mistakes and use that information to help me do better	D – Self-evaluating (2)
7	65	B (2,7) – I try not to translate word-for-word D (3,9) – I notice my English mistakes and use that information to help me do better	A – Back-tracking (7) B – Reasoning deductively (7), Translating (7) D – Self-monitoring (14), Self-evaluating (8)
8	95	B (4,3) – I look for words in my own language that are similar to new words in English D (4,3) – I notice my English mistakes and use that information to help me do better	A – Back-tracking (7) B – Highlighting (5) D – Self-monitoring (13), Self-evaluating (11)

In view of such crossing, it is interesting that Student 7 (Task 1 score (65)), although of Medium average in Cognitive strategies use, reported she "tri[ed] not to translate word-for-word", but in reality was the student who made the most use of translating. Student 1 (Task 1 score (66)), who reported to use Affective strategies usually, reaching 3.5 of overall average in

this category, was the student who really used the few instances of using laughter found in the verbal protocols' data.

It remains to be confirmed if task type has any effect on strategy use. The findings of Cohen et al.'s study (op. cit.), in spite of some complex results, seem to indicate such a tendency. Unfortunately, however, the analysis of my data, up to this point, has not contributed much to corroborate their findings as far as writing tasks are concerned. For the time being, I can only venture to say that Task 1 might have conduced to the use of reasoning deductively, due to the nature of the task itself. In Task 1 students were asked to produce a text using the present perfect and the past simple in the same way as they were used in four extracts presented as input, after having made correlations between form and meaning. Regarding self-monitoring, the strategy which was identified as being mostly used by the students, it does not seem that the results can be said to be associated to task type because students of higher-proficiency, as the ones involved in this study, are expected to identify errors in understanding or producing the target language and try to eliminate them. Similarly, self-evaluating would also be expected of such a group because, at the university, students usually review their own work as well as their peer's and assess their own progress.

It seems worthwhile commenting at this point that in their effort to convey meaning, students were more worried with their written production as far as accuracy of form rather than meaning is concerned, no matter which strategy they were using. Self-monitoring, (a key process that distinguishes good learners from poor learners (cf. Nisbet and Shucksmith, 1986, cited in O'Malley and Chamot, op. cit.), and self-evaluating, together with some cognitive strategies, were used at different levels, but most at the word (vocabulary, preposition), phrase (verb/tense/aspect), or sentence (structure, linkers) level, rather than for style, for the writing plan, choice of topic, for example.

The total picture is indeed complex. The connection between successful learners with amount or quality of strategy use might not be as straightforward as other studies have affirmed. Given that the eight students were selected by their teachers to participate in this study indicates that the teachers, both experienced professionals and researchers, considered them to be good language achievers because they were asked to pick out their best students. Therefore, even in this regard, more studies are called for. Besides, the effect of task type on strategy use also remains to be investigated further. To date, I could only say that writing tasks, of the type employed, seem to call for the use of self-monitoring, self-evaluation and reasoning deductively most of all, in addition to back-tracking.

CONCLUDING REMARKS

Even though it is recognized that generalizations are not possible in view of the extremely small sample used in this study, results indicate that some research findings on language learning/use strategies have been confirmed and some more insights gained in relation to the subject.

University students, here understood as students of higher-proficiency level, report they use more metacognitive strategies and less memory and affective strategies and in fact they do so. Cognitive strategies are also reported to be used and are actually usually used. Social strategies are reported to be usually used as well. However, due to research design, social strategies could not be accounted for in the verbal protocols to make it possible to confirm their actual use. Concerning the relationship between the range of strategy use across skills as well as actual strategy use as identified through verbal protocols and ratings of task performance on writing tasks, learning outcomes do not seem to be closely and/or only associated with high rating scores. In view of the results, other variables besides learners' efficiency might have to be taken into consideration such as, for example, learning

style (cf. Gardner (1993, 1995) and Reid (1995)), language learning difficulties and student background (cf. Ehrman, 1996). As far as the question of how task type affects strategy use is concerned, the study did not go further enough to propose any real contribution to knowledge. The issue continues to be a large and very promising avenue for research. In fact, if further investigation confirms the relationship, strategy-based instruction will certainly get more advocates than today. It seems worthwhile saying, nevertheless, that if learning strategies are seen as complex cognitive skills (Anderson, 1983, cited in O'Malley and Chamot, op. cit.), as the language learning process itself is (cf. McLaughlin, 1987), the results of the present study are not really surprising.

Last but by no means least, even though much still remains to be proved, language learning and language use strategies should be seen as important tools learners can make use of to control and improve their own learning effort, since they are the keys to both greater autonomy and more meaningful learning (cf. Oxford, op.cit.). Furthermore, it is teacher's responsibility their students' awareness raising about their learning processes, in general, and about the role of language learning/use strategies, in particular, if teachers want to effectively contribute to their learners' growth and independence.

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