UNIVERSIDADE FEDERAL DE SANTA CATARINA

PÓS-GRADUAÇÃO EM INGLÊS E LITERATURA CORRESPONDENTE

THE IMPACT OF STRATEGY INSTRUCTION ON L2 LEARNERS' ORAL PERFORMANCE: INVESTIGATING METACOGNITIVE LEARNING STRATEGIES

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To Adiles and Alvaro
with love

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ABSTRACT

THE IMPACT OF STRATEGY INSTRUCTION ON L2 LEARNERS' ORAL PERFORMANCE: INVESTIGATING METACOGNITIVE LEARNING STRATEGIES

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2006

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The present study investigated whether strategy instruction produces an impact on L2 learners' oral performance and whether there is a relationship between strategy use and L2 oral performance. The participants were 22 undergraduate students enrolled in the seventh semester of the Letras course at Unesc (Universidade do Extremo Sul Catarinense). Data were collected on a pre- and post-instructional basis with an experimental and a control group with 11 participants in each group. Learners' oral performance was assessed in terms of fluency, complexity, accuracy and weighted lexical density through a video-based narrative task. Reported strategy use was determined through questionnaires applied immediately after the narrative task. In the instructional phase of the study, the experimental group was taught the benefits of using the metacognitive learning strategies of planning, monitoring and evaluation in order to improve L2 oral performance. The control group, in turn, received no strategy instruction. Statistical analysis revealed that explicit strategy instruction had an impact on L2 learners' oral performance in terms of complexity, accuracy and weighted lexical density, but not in fluency as measured by speech rate pruned and unpruned. These results were explained in terms of trade-off effects among complexity, accuracy, weighted lexical density and fluency. Statistical analysis also showed that there was a relationship between increased reported strategy use and improved L2 speaking performance. Results further suggested that strategy instruction should be conducted in L2 classroom settings not only as a way to

facilitate learners' endeavors to become successful L2 speakers but also to encourage the development of more positive attitudes towards L2 learning.

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RESUMO

O IMPACTO DO ENSINO DE ESTRATÉGIAS NA PRODUÇÃO ORAL DOS ALUNOS EM L2: UMA INVESTIGAÇÃO SOBRE ESTRATÉGIAS DE APRENDIZAGEM METACOGNITIVAS

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2006

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Este estudo investigou se o ensino de estratégias de aprendizagem produz um impacto na produção oral dos alunos em L2 e se existe uma relação entre o uso de estratégias e a performance oral em L2. Os participantes deste estudo foram 22 alunos da sétima fase do curso de Letras da Universidade do Extremo Sul Catarinense – UNESC. Os dados foram coletados com um grupo experimental e um grupo controle em duas fases distintas: fase anterior e fase posterior ao ensino de estratégias. A performance oral dos participantes deste estudo foi analisada através de uma tarefa vídeo-narrativa na qual quatro aspectos da produção oral foram medidos: fluência, complexidade, precisão e peso da densidade lexical. Questionários aplicados imediatamente após a tarefa vídeo-narrativa foram utilizados para elicitar o uso de estratégias entre os alunos em cada fase do estudo. Durante a fase de instrução, os participantes do grupo experimental tiveram aulas específicas sobre os benefícios do uso das estratégias metacognitivas de planejamento, monitoramento e avaliação na produção oral em L2. Nesta mesma fase, o grupo controle não recebeu instrução específica sobre estratégias metacognitivas. Os resultados das análises estatísticas revelaram que o ensino de estratégias produz um impacto na produção oral dos alunos principalmente em termos de complexidade, precisão e peso da densidade lexical, mas não produz um efeito positivo em relação à fluência; e existe uma relação entre o aumento do número de estratégias e melhorias na produção oral em L2. Esses resultados também demonstram a presença de efeitos de troca atencional entre as dimensões de complexidade, precisão, peso da

densidade lexical e fluência. Os resultados também sugerem que o ensino de estratégias deve ser realizado nas aulas em L2, não só para auxiliar os alunos a se tornarem bem sucedidos na área de produção oral, mas também para incentivar o desenvolvimento de atitudes mais positivas em relação à aprendizagem de uma língua estrangeira.

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Palavras-chaves: Ensino de estratégias de aprendizagem, performance oral em L2, uso de estratégias, estratégias metacognitivas.

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CHAPTER 1

INTRODUCTION

1.1 Preliminaries

As a young child, I deeply wanted to speak English because my father had a movie theater and I believed that one of his best friends was a famous American actor who played the role of the detective *Kojak* in the movies. In fact, Telly Savallas and my father's friend were both bald and they both had a convertible car. Thus, I took for granted they were the same person. I do not recall whether I ever attempted to speak English with the man I believed was a famous actor. Nevertheless, the willingness to speak English with an American actor led me to start studying the language at a very young age.

Some years later, as an English teacher, I observed that my students were greatly concerned with the development of effective speaking skills. Therefore, I developed an increasing interest in the research of L2[1] speech production and L2 learning strategies in order to better help learners cope with the challenges encountered in L2 speaking. This interest has led me to conduct small-scale studies in the field of language learning strategies and it has become the original motivation to carry out the present study.

1.2 Language Learning Strategies

Language learning strategies are generally approached as conscious actions taken by learners to enhance the learning and use of a foreign/second language (Cohen, 1998). Research in the field formerly started with groundbreaking studies conducted by Rubin (1975), who identified the most important characteristics of successful L2 learners.

[1] In the present study, both second and foreign language will be referred to as L2. Acquisition and learning will also be used interchangeably.

Subsequent studies provided the definition, description, identification, and classification of language learning strategies (Cohen, 1998; O'Malley & Chamot, 1990; Oxford, 1990b; Wenden, 1991). Recent research has mainly focused on (1) the correlation between strategy use with other learner variables such as age, gender, proficiency level, motivation and affective factors (Kaylani, 1996; Oxford, Cho, Leung & Kim, 2004); and, (2) the impact of strategy instruction on L2 learners' performance (Varella, 1997; Reis, 2004; Cohen, 1998; Oxford, 1996; O'Malley, Chamot, Manzanares & Russo, 1985).

In recent years, investigations in the field of L2 learning strategies have shown that L2 learners who are taught the strategies needed to effectively approach distinct language tasks, learn better than those who are not. As a result, research in the field of L2 learning strategies (Oxford, 1990b; Cohen, 1998; Weaver & Cohen, 1997) suggests that explicit instruction on learning strategies can lead to more effective language learning.

1.3 L2 Strategy Instruction

The proponents of the L2 strategy instruction methodology put forward that one of the main goals of strategy instruction is to help learners become more self-directed, more autonomous, and more effective learners (Oxford & Leaver, 1996). A further goal of the L2 strategy instruction methodology is to encourage students to develop a higher awareness of how, when and why strategies can be employed in order to accomplish a variety of language tasks (Weaver & Cohen, 1997). In this sense, learners not only assume a greater responsibility for their L2 learning, but also develop a greater autonomy towards the language learning process.

Recently, some researchers have set out to investigate the impact of L2 strategy instruction on language learning. Studies conducted by various researchers (Nunan, 1996; Reis, 2004; O'Malley & Chamot, 1990; and Wenden, 1991) suggest that L2 strategy instruction leads to increasing motivation, greater learner autonomy, and improved performance in language learning. The few studies conducted on the effects of instruction on L2 speaking performance (Cohen, Weaver & Li, 1998; Lucena & Fortkamp, 2001; Varella, 1997) have also provided encouraging results.

Although much progress has been achieved with recent studies in the field of L2 strategy instruction, researchers claim that the effectiveness of strategy use largely depends on the learner's willingness to experiment, to test, and to evaluate which learning strategies can best maximize language learning (Oxford, 1990b; Cohen, 1998, Oxford & Leaver, 1996). For this reason, research on L2 strategy instruction indicates that it is not an exclusive strategy that can enhance performance, but rather the effective use of several strategies that together lead to greater language learning (Chamot & Rubin 1994). Therefore, the present study seeks to investigate whether the teaching of learning strategies has a positive impact on learners' L2 oral performance.

1.4 Statement of the Purpose

Departing from Levelt's (1989) assumption that speaking is a complex cognitive skill, the present study draws on existing research on both L2 speech production and L2 learning strategies and opens an avenue of inquiry into (1) the dimensions of L2 speaking that may be impacted by the teaching of learning strategies as well as (2) the relationship between strategy use and L2 oral performance.

Although few studies have attempted to unravel the impact of learning strategy instruction on L2 oral performance (Cohen, Weaver, & Li 1998; Lucena & Fortkamp,

2001; Varella, 1997; for instance) no study, to the best of my knowledge, has investigated the effects of strategy instruction by assessing L2 speaking on the basis of fluency, accuracy, complexity and weighted lexical density. Due to this gap in research the present study aims at addressing the following research questions:

1) What are the effects of learning strategy instruction on L2 learners' oral performance?
2) Is there a relationship between strategy use and L2 oral performance?

1.5 Significance of the Research

The significance of this research lies on the importance of investigating whether the teaching of language learning strategies can promote improvements on L2 learners' speaking performance. The results of this study may shed light on a relatively neglected area of learning strategy instruction, namely L2 speech production. In addition, the insights produced by this research might provide the grounds to evaluate whether the teaching of learning strategies should be adopted in L2 classrooms as a methodology to facilitate learners' endeavors to become successful L2 speakers.

Finally, most L2 learners have never been exposed to learning strategy instruction in order to (1) improve oral performance, or to (2) overcome difficulties encountered in L2 speaking (Varella, 1997). This lack of strategy instruction might explain why most students are unable to develop effective speaking skills. Therefore, this research also seeks to unfold whether learning strategy instruction has a role in promoting gains in L2 oral performance in terms of fluency, accuracy, complexity, and weighted lexical density.

1.6 Organization of the Dissertation

The present study is organized into five major chapters. This introductory chapter presented an overview of the recent research in the field of language learning strategies, and L2 strategy instruction. It also addressed the research questions that guide this study, presented the statement of purpose, and highlighted the significance of this research. In chapter 2, the literature on language learning strategies and L2 strategy instruction is reviewed, and the research that is deemed relevant to the present study is presented. Chapter 2, then, focuses on the challenges involved in the production of L2 speech and approaches L1 and L2 psychological models of speech production. Finally, it outlines the main differences between L1 and L2 speech and presents an overview of the recent research on L2 oral production. In chapter 3, the method to conduct the present study is described and the statistical techniques used in order to analyze the data are presented. Chapter 3 also restates the research questions of this study and reports the procedures adopted in the pre- and post-instructional phases of the study. In chapter 4 the results of the study are presented and discussed. Finally, chapter 5 outlines the conclusion and presents the pedagogical implications, the limitations of the study, and the suggestions for further research.

CHAPTER 2

REVIEW OF THE LITERATURE

The objective of this chapter is twofold. Firstly, it aims at providing an overall view of the research on language learning strategies and L2 strategy instruction. Secondly, it presents a general picture of the processes involved in the production of both L1 and L2 speech and reviews some theoretical issues related to research in L2 speaking that are deemed relevant to the present study. Therefore, this chapter is divided into four main sections which are presented as follows: section 2.1 scrutinizes the original meaning of the word strategy; section 2.2 addresses the theoretical and practical issues in the research of L2 learning strategies; section 2.3 offers an overview of the research in L2 strategy instruction and includes the main findings of studies conducted on the effects of strategy instruction on L2 speech production. Finally, section 2.4 introduces important issues concerning the production of L2 speech, approaches L1 and L2 speech production models and reviews the research in L2 speaking that is pertinent to this study.

2.1 The Word Strategy Defined

Before starting to address the issue of language learning strategies, a definition of the term strategy is called for. The word *strategy* originally comes from the ancient Greek word *strategia,* which means the art of war (Oxford, 2001). More specifically, the original term refers to steps or actions taken in an effort to win a war (Oxford, 2001, p. 362). Although the warlike connotation of the word *strategia* is not longer in use, the term strategy appears to be in vogue in modern society and it is currently employed by distinct fields of studies such as education, marketing, politics, and business

administration, among others (Grant, 2002). Regardless of the different interests of these areas of study, the term strategy is usually approached as a plan or action with the purpose of accomplishing a specific goal.

2.2 Language Learning Strategies

2.2.1 Language learning strategies defined

In the field of L2 strategies the word strategy has gained a new meaning and has been transformed into *learning strategies* (Oxford, 1990b, p.8). Some researchers in the L2 arena generally refer to strategies as 'techniques', 'tactics', 'procedures', 'conscious plans', 'behaviors', 'mentalistic processes', 'problem-solving actions', among other terms. These wide ranges of approaches also reflect the several definitions of learning strategies that have been proposed by researchers in the field. Rubin (1987), who conducted landmark research on successful language learners, defined learning strategies as tactics that contribute to the development of the language system. According to O'Malley and Chamot (1990), learning strategies are special thoughts or behaviors that individuals use to help them understand, learn, or retain new information. In the words of Scarcella and Oxford (1992), learning strategies are "specific actions, behaviors, steps, or techniques – such as seeking conversation partners, or giving oneself encouragement to tackle a difficult language task – used by students to enhance their own learning" (p. 63).

Oxford (1990b) has a more positive approach to define language learning strategies. In her words, L2 strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self directed, more effective, and more transferable to new situations (p. 8). The concept proposed by Cohen (1998) is broader in scope since it links the elements of consciousness and choice to the definition of

learning strategies. According to Cohen, learning strategies can be defined as "processes which are consciously selected by learners which may result in actions taken to enhance the learning and use of a second or foreign language" (Cohen, 1998, p.4). Cohen's definition is especially relevant to the present study because it includes the features of consciousness and choice in the concept of learning strategies. Therefore, the definition provided by Cohen (1998) is central to the present study for it distinguishes strategies from those processes that are not strategic (skills[2], for instance, are labeled as automatic procedures). More recently, Chamot (2005) has approached learning strategies simply as procedures that facilitate a learning task (p.112).

Bearing in mind the several definitions presented above, I now attempt to provide a definition of L2 learning strategies. This tentative definition, however, does not aim at overloading the field of language learning strategies with another meaning for the term. In fact, it intends to reinforce the 'conscious' aspect of the definition of learning strategies suggested by Cohen (1998) and to account for two of the most observable features displayed by the language learner who is exposed to specific strategy instruction. The tentative definition I propose is: *Language learning strategies are conscious actions employed by learners which may lead to the development of more positive attitudes towards the language learning process and may result in greater motivation and improved language performance.*

It is important to highlight that the tentative definition above provided takes into account two important characteristics of the language learner who has received specific learning strategy instruction namely, positive attitudes and higher motivation. Moreover, these two important features appear to be overlooked by previous definitions of language learning strategies. Therefore, I suggest a link between the employment of

[2] Skills are procedures that have been routinized or automatized. Therefore, they can be further distinguished from strategies for lacking the element of consciousness (Alexander, Graham & Harris, 1998).

conscious actions, in order to effectively perform language tasks, and the development of positive attitudes towards language learning. This link, thus, results in greater motivation and improved language performance. It is also worthwhile outlining that this definition of learning strategies was elaborated based on the results obtained from studies conducted in the field of strategy instruction (Nunan, 1996; Reis, 2004; Rossi, 2002), and it has been further supported by the outcomes of the instructional classes devised for the present study.

2.2.2 Initial studies in the field of language learning strategies

The earliest contributions to the field of L2 learning strategies were given by the studies conducted in the area of cognitive psychology in the late 1970's (O'Neil, 1978; Rumelhart & Norman, 1978) and the research carried out by Rubin (1975) with 'good language learners'. While studies on cognitive psychology explained the differences between cognitive and metacognitive strategies, early research on effective language learners was able to identify the characteristics of good L2 learners.

Rubin's (1975) groundbreaking research on successful learners set the pillars for the initial research in the field of language learning strategies. One of the most important outcomes of such work was the identification of seven important features of successful language learners. Rubin (1975) suggested that the good L2 learner (1) is usually uninhibited; (2) has a strong desire to communicate in the target language; (3) is willing to make mistakes in order to learn; (4) tries to create opportunities for practicing the language; (5) is able to monitor his own speech as well as the speech of others; (6) takes advantage of all opportunities to practice the language; and, (7) is prepared to attend to form and to meaning.

Naiman, Frolich and Todesco (1978) followed Rubin's (1975) pioneer study by conducting further investigations with successful learners. These researchers were able to identify the following general features of the good language learner: (1) management of affective strategies such as anxiety and nervousness; (2) capacity to use the language according to the requirements of the language task; and, (3) awareness that the language serves as a means of communication and interaction. Subsequent research in the area (Ramirez, 1986; Reiss, 1985) showed that successful learners present most of the characteristics above mentioned. However, the uninhibited feature has not been identified as a common trait of most successful learners. According to Oxford (1900b), foreign language learning produces a somehow natural anxiety, and even good language learners might be anxious at times, or even inhibited. Nevertheless, successful learners are able to strive against inhibition by practicing the language, using positive self-talk, and by getting involved in situations where they are required to take risks[3] or to communicate (Oxford, 1990b). More recently, Rossi (1998) has also suggested that the successful language learner is a mentally active learner who is greatly motivated to learn the target language.

Although much progress has been achieved with recent studies in the field of L2 learning strategies, L2 researchers agree that the investigations with effective language learners offered essential accounts of the distinct strategies employed by successful students when performing a wide variety of language tasks (Oxford, 1990b; Weaver & Cohen; 1997). The insights conveyed through early research with successful learners also provided the basis for the categorization, definition, and the production of frameworks and typologies to classify language learning strategies.

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[3] Oxford (1990b) suggests that in language learning it is essential to take risks, or to take moderate and intelligent risks (p. 144) despite the possibility of making occasional mistakes. L2 learners can take risks when they get involved in situations such as: communicating with native speakers or speaking in the target language with their language teachers

2.2.3 Language learning strategies classified

Although research in the L2 learning strategy arena still lacks consistency as regards the frameworks developed in order to categorize the strategies employed by learners, language learning strategies are typically divided according to the framework developed by O'Malley and Chamot (1990) in which strategies are classified according to whether they are (1) cognitive; (2) metacognitive; or, (3) socio-affective. This classification proposed by O'Malley and Chamot (1990) is adopted in the present study due to the fact that it provides a clear-cut distinction of the main types of strategies.

Cognitive strategies comprise the mental processes directly associated with the processing of information in order to learn, that is for obtaining, storage, retrieval or use of information (O'Malley & Chamot, 1990; Williams & Burden, 1997). Examples of cognitive strategies include: note taking, summarizing, using visual imagery, highlighting, and classifying vocabulary. **Metacognitive strategies**, on the other hand, are actions that allow learners to coordinate their own learning process. Metacognitive strategies are related to the learners' efforts to plan, monitor, and evaluate language learning activities (O'Malley & Chamot, 1990; Weaver & Cohen, 1997). For instance, planning for language tasks, monitoring performance, and self-evaluating one's progress. **Socio-affective strategies** encompass the actions taken by learners in order to interact with others and involve the aspects of motivation, emotions, and attitudes (O'Malley & Chammot, 1990). Examples of these strategies include: asking for clarification or explanation, encouraging oneself through self-talk, cooperating with others to complete a task, and reducing anxiety by using relaxation techniques.

For the purposes of the present study it is important to note that researchers in the field of strategy instruction have not yet provided a specific framework with learning strategies exclusively related to L2 speech production. Nevertheless, a

classification scheme developed by Chamot and O'Malley (1994) include the strategies of planning, monitoring and evaluation as examples of metacognitive strategies associated with L2 speaking, while note taking and summarizing are presented as examples of cognitive strategies also associated with L2 speaking. In other words, L2 learners apply metacognitive strategies when planning what to say, monitoring their output and evaluating speaking performance (Chamot and O'Malley, 1994). Cognitive strategies, on the other hand, are used when students look at their notes during speaking or when they verbalize the main ideas by adopting the strategy of summarizing (Chamot & O'Malley, 1994).

Moreover, it is needs to be highlighted that metacognitive strategies are essential for successful language learning (Oxford, 1990) because they allow L2 learners to develop a greater awareness of strategy use, as well as to increase the ability of conscious strategy choice for different situations (Williams & Burden 1997). Following the same line of thought, Skehan (1991) states that metacognitive strategies are broader in application due to the fact that they are concerned with the aspects of reflection, and flexibility in L2 learning. In this sense, reflection refers to the development of a higher awareness of the strategies needed in the language learning process. Flexibility, in turn, arises from effective metacognitive strategy use, which provides the ability to employ different strategies within specific language tasks.

2.2.4 Identification and assessment of learning strategy use

Recent research in the field of L2 learning strategy has identified at least sixteen factors that can affect the use and choice of strategies during the language learning process (Oxford, 1990b). These factors are: (1) language being learned; (2) length of language study; (3) degree of awareness about strategies; (4) age; (5) gender; (6)

affective variables; (7) attitudes; (8) motivational level; (9) language learning goals; (10) personality characteristics; (11) learning style preferences; (12) aptitude; (13) career orientation; (14) origin and culture; (15) language teaching methods; and (16) task requirements.

The identification of the factors influencing strategy use is particularly relevant for research in the area of language learning strategies because it acknowledges that individual differences among learners can greatly influence the learner's choice of learning strategies. For this reason, Oxford and Leaver (1996) suggest that the L2 learner is not just a cognitive and metacognitive machine, but rather an individual that has specific goals, interests, learning styles, and might be less or more motivated to learn a new language.

Besides investigating the factors that impact strategy use, research in the field of learning strategies has also attempted to verify patterns of strategy use among language learners (Chamot & Kupper, 1989; O'Malley & Chamot, 1990). The most common assessment methods are: oral interviews, questionnaires, verbal reports, learner diaries, dialog journals, recollective studies, and computer tracking. While researchers still debate over the advantages and disadvantages of each of these assessment methods, several relevant findings were obtained through studies conducted in the field.

A study carried by O'Malley, Chamot, Manzanares and Russo (1985) revealed that although students at all levels of proficiency used an extensive variety of strategies, the more proficient learners reported a greater use of metacognitive strategies. Research conducted by Chamot and Kupper (1989) suggested that high proficient students tend to select strategies according to the requirements of a given language task. According to O'Malley and Chamot (1990) the more proficient learners can explain the strategies they use and why they employ them. More recent research has also shown that

perceived task difficulty affects the use of learning strategies (Oxford, Cho, Leung and Kim, 2004). On more challenging tasks, however, students report a higher use of strategies.

2.3 Strategy Instruction in L2 Learning

The proponents of the L2 strategy instruction methodology claim that when learners are left to their own devices or when they are not encouraged to use distinct language learning strategies, they tend to use exclusively the strategies that reflect their basic learning styles[4] (Oxford 1990a, 1990b, 2001). In this sense, one of the main goals of strategy instruction is to help learners become more self-directed, more autonomous, and more effective learners through the improved use of language learning strategies (Oxford & Leaver, 1996, p.227). A further goal of L2 strategy instruction is to encourage learners to develop a greater awareness of how, when and why strategies can be used so as to perform distinct language tasks (Weaver & Cohen, 1997).

As L2 strategy instruction aims at encouraging students to become more independent, more aware, and more effective L2 learners, Cohen (1998) suggests that learning strategy instruction can also be characterized as a "wake up–call" (p.75) to language learning. In other words, L2 strategy instruction can help students shift from a passive to a more active role in the learning process by teaching them how to enlarge their strategies repertoire through the selection of specific strategies in order to better approach the requirements within the context of specific language tasks.

Proponents of the strategy instruction methodology also claim that the teaching of language learning strategies can lead students to learn how to modify their attitudes

[4] According to Oxford (2001), learning styles are the general approaches that students use in acquiring a new language or in learning any other subject (p.359). For instance, global or analytic, auditory or visual, introverted or extroverted.

towards the learning process and to assume more responsibility for their language learning (O'Malley & Chamot, 1990, Oxford 1990b, Weaver & Cohen, 1997). As a result, learners can become more autonomous and consequently less teacher dependent. For this reason, Cohen (1998, p.66) advocates that in the last decades the field of L2 strategy instruction has witnessed a shift towards the responsibility for language learning:

> No longer does the teacher act as the locus of all instruction, controlling every aspect of the learning process. Rather, the learners themselves now, more than ever, are sharing the responsibility for successful language acquisition and, in doing so, are becoming less dependent on the language teacher for meeting their individual learning needs.

Along with the suggestion of encouraging learners to become more autonomous, the strategic approach to language learning also incorporates the idea that the power is "in the hands" (Morley, 1993, p. 116) of the L2 learners. That is, although teachers facilitate the process by describing, modeling, and providing opportunities to practice a broad range of learning strategies; the effectiveness of a given strategy largely depends on the learner's willingness to test, to evaluate, and to decide which strategies are most profitable to his/her successful language learning. All and all, the main assumptions underpinning the field of L2 strategy instruction are summarized by Oxford and Leaver (1996, p.228) in the following statement:

> Strategy instruction involves active learning and growth on the part of each individual student. It does not involve helping all students to use the very same strategies. In fact, that would defeat the purpose, which is to help learners become more active, more autonomous, more self-directed, and more discerning of what strategies are best for them as individuals. Students need to experiment before finding the most appropriate learning strategies that meet their individual needs, so there's no single set of effective strategies that fits every language learner. One size just doesn't fit all.

For this reason, teaching learners how to employ language learning strategies is referred to as the learning how to learn approach (Cohen, 1998; Weaver & Cohen, 1997) to language learning. That is, students can learn the target language and by the same token they learn how to use strategies so as to facilitate and enhance language learning. In this sense, Cohen (1998) claims that strategy instruction should offer

learners general raising awareness activities in addition to presenting a limit but illustrative set of strategies, which need to be devised according to the requirements of each language task. Furthermore, Oxford (1990b) suggests that strategy instruction needs to be "highly practical and useful" (p.201) in order to offer students the full benefits of reaching higher levels of performance in L2 learning.

The question that might emerge at this point is how L2 strategy instruction might differ from traditional L2 teaching methods. To start with, the greatest contrast lies in the fact that the L2 learner, and not the teacher, is central to the effectiveness of the strategic approach to language teaching (Weaver & Cohen, 1997). Moreover, in traditional teaching methods the teacher tends to dominate the floor (Nunan, 1996) and students are often instructed in passive learning environments where there exist fewer opportunities to develop higher thinking skills (Ramirez, Yuen, & Ramey, 1991). However, in the learning strategy instruction methodology the learner is encouraged to be an active participant of the learning process by discerning which strategies best enhance L2 learning. The teacher, in turn, is viewed as a 'change agent', a 'facilitator' (Cohen, 1998, p. 97), whose role is to help learners become more independent and more responsible for their learning through effective strategy use. Therefore, under the L2 strategy instruction methodology teachers and students are seen as partners because as much as strategy instruction can empower students to make language learning more meaningful and successful (Oxford, 1990b) it can also empower teachers to facilitate the language learning process.

Expanding the main differences between traditional teaching methods and L2 strategy instruction, it is important to outline some practical approaches embedded into the classes oriented towards the L2 strategy instruction methodology. Following Cohen (1998), L2 strategy instruction involves: (1) describing, modeling, and giving examples

of potential useful strategies; (2) eliciting additional examples from students' own learning experiences; (3) leading group discussions about strategies – for instance, reflecting on the rationale behind strategy use, planning how to approach a specific task, evaluating the effectiveness of chosen strategies; (4) encouraging students to experiment with a broad range of strategies; and (5) integrating strategies into everyday class materials by including them in language tasks so as to provide for contextualized strategy practice (p.81).

2.3.1 L2 strategy instruction: research and criticism

The bulk of research in the field of language learning strategies has focused on the description and classification of language learning strategies. Recent studies in the field have also investigated the impact of strategy instruction on L2 learning. Chamot (2005) considers several reasons in order to account for the relatively smaller number of investigations in L2 strategy instruction, in relation to the body of research conducted on the description and classification of language learning strategies. For instance, (1) difficulties to assign experimental or control groups in natural classroom settings; (2) the need to determine participants' L2 speaking proficiency level; (3) the time constraint for planning, implementing and conducting L2 strategy instruction; and, (4) the need to pre- and post-test learners in order to compare the effects of instruction on L2 learners' oral performance.

In addition, Chamot (2005) refers to the area of L2 speaking as the "most challenging language modality" (p. 119) for learning strategy instruction since it requires the assessment of speech performance on a pre- and post-instructional basis. Despite challenges, the few studies conducted on the impact of strategy instruction on learners' oral performance (Varella, 1997) have provided encouraging results as to the

importance of strategy instruction in order to promote improvements in L2 speaking performance. Three of these investigations are reviewed next in an effort to place the present study in perspective.

Varella (1997) verified the effects of learning strategy instruction on the oral presentations of 41 intermediate students in grades six, seven, and eight in an English as a Second Language (ESL) science class. Varella conducted the study in a school district in a metropolitan area in the eastern United States. Subjects were divided into experimental and control groups and were interviewed in order to assess the strategies they used to prepare for and present their oral reports. The 21 learners in the experimental group received specific strategy instruction on the following strategies: grouping, selective attention, cooperation, note taking, self-assessment and self-talk. Participants' oral presentations were evaluated in terms of organization, clarity, vocabulary choice, eye contact, volume and pace. A comparison between pre- and post-instructional results indicated that strategy instruction leads to improvements on L2 learners' oral performance and there exists a moderate strong relationship between increased reported strategy use and greater gains in L2 oral performance.

Cohen, Weaver, and Li (1998) investigated the impact of strategy instruction on the communication skills of 55 intermediate foreign language learners at the University of Minnesota. In this study, the experimental and control group participants performed a series of three speaking tasks (i.e., self-description, story retelling, and city description) on a pre- and post-instructional basis. They also provided verbal report data as regards the strategies used prior to, during, and after each speaking task. In the instructional phase of the study, the students in the experimental group were taught how to employ the strategies of self-talk, planning, monitoring and evaluation to their oral performance. Cohen, Weaver and Li (1998) assessed pre- and post-oral speaking ability in terms of

self-confidence in delivery, acceptability of grammar, and control over vocabulary. Results of the study indicated that strategy instruction yields improvements on students' speaking proficiency and there exists a positive significant correlation between increased reported strategy use and oral performance.

Lucena and Fortkamp (2001) verified the effects of explicit strategy instruction on the speaking performance of 20 beginning EFL learners at a Brazilian public school. Participants of the study were assigned into experimental or control groups and performed a videotaped oral presentation on a pre- and post-instructional basis. The instructional phase of the study consisted of the teaching of three metacognitive strategies namely, planning, monitoring and evaluation. Learners' oral performance was evaluated from a qualitative perspective, in terms of flow, lexical adequacy and pronunciation. Results suggested that teaching, reinforcing and presenting strategies in L2 classrooms can positively impact learners' speaking ability, as well as improve students' confidence when presenting the oral task devised for the study.

Having reviewed three studies that have investigated the effects of strategy instruction on L2 learners' oral performance, it is important to note that the field of L2 learning strategies has not yet provided an ideal time framework for providing explicit strategy instruction or best determined an overall typology for conducting investigation on the effects of strategy instruction in L2 oral performance.

Despite the fact that a great deal of research still needs to be conducted in the field of L2 strategy instruction (Weaver & Cohen, 1997), some researchers have voiced their concerns regarding the effectiveness of such methodology. Gu (1996), for instance, addressed an ironic criticism to the field of L2 strategy instruction by stating that it is "too early to make pronouncements about what every teacher should know about language learning strategies" (p. 22). Another set of criticism was raised by Rees-

Miller (1993), who claimed that strategy instruction was generally ineffective to improve L2 learners' performance, and thus advised teachers to proceed with caution until more investigation is conducted in the area.

In response to Rees-Miller's criticisms, Chamot and Rubin (1994) claimed that it is not an exclusive strategy that can enhance performance, but rather it is the effective use of several strategies that together lead to greater language learning. They also mentioned several studies in order to provide evidence that L2 strategy instruction does correlate with improved performance. Finally, Chamot and Rubin (1994) emphasized that in order to make L2 strategy teachable is important to (1) describe and present each strategy; (2) model the strategies; (3) explain why and when the strategies can be used, and (4) provide extensive practice.

After all that has been said, it is also important to highlight that the general assumption underscored by the field of L2 learning strategy instruction is that knowledge of strategies is important because the greater awareness learners have about their learning process and the more conscious they are of the actions required to improve L2 learning, then the more effective learning will be (Nunan, 1999).

Drawing on the review of literature in the field I attempt to postulate that at the heart of the L2 strategy instruction methodology lie the pillars of active learning, autonomy, and growth. Active learning encompasses the idea of encouraging learners to know more about themselves and to know more about effective strategy use. Autonomy, on the other hand, is developed through the learner's willingness to experiment and to evaluate which strategies best fit his/her language needs. Growth, in turn, will be achieved as a result of consolidating the expertise in employing language learning strategies within a range of language tasks.

2.4 L2 Speech Production

Over the length of my experience as a language teacher, I have observed that in classroom settings learners generally have a greater concern with the development of effective speaking skills than with the acquisition of writing, reading, and listening skills. This worry might be partly due to a general belief already established in L2 settings where L2 proficiency is usually equated with the ability to speak the language (Brown, 1994; Nunan, 1999; Riazantseva, 2001). Although speaking might be viewed as a central skill for successful language learning, students and teachers are often faced with difficulties and challenges in order to learn and to teach one of the most complex language skills (Levelt, 1989) of mankind.

L2 speaking is considered a challenging skill for learners (Brown, 1994) and also the most demanding of the four language skills (Bailey & Savage, 1994). According to Bygate (2001a; 2001b) there exist several factors that may contribute to the demands and challenges of L2 oral production. For instance, (1) elementary L2 speakers have difficulties to maintain fluent and accurate speech due to their lack of automation of the major processes involved in L2 speech production; (2) speaking is reciprocal and demands physical interaction in order to establish communication; (3) speaking is produced online and thus, time pressure plays an important role in the ability to effectively use the linguistic resources of the L2 (e.g. lexicon, grammar, phonology, idiomatic expressions), and, (4) speaking is less predictable and thus requires continuous attention from both speakers and their interlocutors so as to keep the flow of communication.

In addition, L2 research indicates that input is not a sufficient condition to guarantee the development of the L2 speaking ability and thus output practice is needed (Swain, 1995) in order to enable learners to cope with the cognitive processing demands

of L2 speech production. By the same token, as we all have an intuitive concept of what entails to be more or less fluent (Fortkamp, 1999) L2 speakers cannot hide their ability or lack of it when communicating. Therefore, L2 speaking also encompasses exposure to automatic or even unconscious evaluation of one's speech performance.

In an effort to better understand the complexities involved in the production of speech, models of L1 and L2 speech production, along with the main differences between L1 and L2 speech, will be briefly reviewed in the following subsection.

2.4.1 Models in L1 and L2 speech production

Departing from the assumption that "the speaker is a highly complex information processor who can, in some rather mysterious way, transform intentions, thoughts, and feelings into fluently articulated speech" (Levelt, 1989, p.1), Levelt envisions speaking as a complex cognitive skill, which performs a serious of functions in a rather continuous and automatic fashion. Therefore, in addition to being considered the most influential and ambitious model of speech production already proposed in the field of psycholinguistics, the monolingual model of speech production advanced by Levelt (1989) attempts to account for the several cognitive processes involved from the speaker's initial intention to produce speech, until the actual articulation of words and utterances.

In accounting for the complexities of speech, Levelt proposes "a blueprint for the speaker" (1989, p.8) in which L1 speech production is depicted through the activation of four autonomous processing components, namely (1) the conceptualizer, (2) the formulator, (3) the articulator, and (4) the speech production system. Although operating independently, each of these processing components perform essential and automatic functions in the production of L1 speech. For Levelt (1989), it is this rather

automatic feature of L1 speech which enables the four processing components to function in parallel, and thus establish the main condition for uninterrupted fluent speech (Levelt, 1989, p.2). In what follows, the four major components of Levelt's model of speech production are further explained.

According to Levelt (1989), the speaker initiates the process of speech production in **the conceptualizer** by conceiving an intention to speak. This conceptual intention to communicate involves the stages of planning the content (i.e.,macroplanning) as well as planning the form of the message (microplanning). Overall, macroplanning encompasses the elaboration of communicative goals and the retrieval of information necessary so as to achieve these goals. For instance, the speaker establishes whether s/he wants to narrate an event, or express an opinion. Microplanning, in turn, encompasses making decisions on an appropriate speech act. As an example, the speaker determines whether the speech act is a promise, a question or even a suggestion. In the words of Levelt (1989), the output of the conceptualizer is the preverbal message, which serves as the input for the second component of the blueprint of the speaker, namely the formulator.

In **the formulator** speakers build the grammatical and phonological structures of the preverbal message. That is, the speakers retrieve and select appropriate grammatical and phonological features necessary in order to produce an utterance. According to Levelt (1989), the formulator is highly automatic and thus, requires a substantial amount of procedural knowledge. In this sense, prior to developing a phonetical and grammatical plan for words and phrases, speakers need to access the mental lexicon in which lexical units are stored as a source of declarative knowledge. Lexical units not only specify the meaning of words, but also provide syntactic, morphological and phonological information about these words. As a result, the production of an adequate

phonological and grammatical pattern to produce words and phrases leads to the generation of a phonetic articulatory plan. This latter plan is then sent to the articulator which comprises the third processing component of Levelt's model of speech production.

For Levelt, (1989) the main objective of **the articulator** is to transform internal speech into overt speech. In order to produce overt speech, however, it is necessary the coordination of a series of articulatory muscles which are responsible for the execution of speech sounds. Hence, the articulation processing component of Levelt's (1989) model is a highly procedural feature of the speech production system.

Finally, **the speech comprehension system** is the fourth processing component of the speech model envisioned by Levelt (1989). In overall terms, this component encompasses the monitoring and correction of erroneous productions in both internal and external speech. In other words, monitoring occurs at the planning phases of the speech production process (i.e., at the conceptualizer, and the formulator), as well as at the output processing stages of speech production (i.e., at the articulator, and at the speech comprehension system).

Based on Levelt's (1989) widely used model of L1 speech production, studies on L2 production models have also explained the main processes involved in the production of L2 speech. According to the models proposed by De Bot (1992) and Poulisee and Bongaerts (1994) the decision to speak either in L1 or L2 is made at the level of the conceptualizer. In other words, language choice is determined prior to enconding the message. However, while De Bot (1992) assumes that L1 and L2 lexical items are organized in different conceptual stores, Poulisse and Bongaerts (1994) suggest that L1 and L2 lexical units are stored in a single network. Hence, according to Poulisse, (1999) the main advantage of Poulisse and Bongaerts (1994) model is that it

does not require the formulation of two alternative speech plans in order to explain code-switching, and it allows the L2 speaker to switch languages by activating individual lexical items (p. 63).

Thanks to the studies on L2 production models researchers have also underscored the differences between L1 and L2 oral production. According to Poulisse (1999) and Dörnyei & Kormos (1998), there exist three main differences between L1 and L2 speakers. These differences, which are especially evident at lower levels of proficiency, are as follows: (1) as L2 knowledge is incomplete, L2 speakers may encounter a series a series of grammatical and lexical obstacles in order to convert their intentions into overt speech; (2) L2 speech production tends to be slower, more hesitant, and as a consequence less fluent than L1 production; and, (3) L2 production may carry traces of L1 and thus L2 speakers can transfer a series of conversation features (e.g. intonation, pausing) to their L2 speech production, or they may resort to code-switching even unintentionally.

Concerning the second difference outlined between L1 and L2 production, it is important to note that while L1 production is largely automatic (Level, 1989), L2 speech production demands more attentional resources than speech processing in L1, since language procedures in L2 are less automatized than in L1 (Dörnyei and Knormos, 1998). This lack of automacity can lead L2 speakers, especially at beginner levels of language proficiency, to articulate words at a rather slower speech rate than their L1 counterparts. As an illustration, while an average English speaker produces roughly from 2 to 3 words per second (Guerrero, 2004), a beginner L2 speaker can hardly produce 1 word per second. Therefore, the distinct speech rates portrayed by L1 and L2 speakers can also demonstrate the greater cognitive processing demands of converting thoughts and ideas into fluent L2 speech (Schmidt, 1992).

2.4.2 Research in L2 speech production

The field of L2 speech production has been considered a neglected area of research in the Second Language Acquisition arena (Bygate, 1998; Fortkamp, 2000). In the last 20 years, however, research in L2 speaking has received greater recognition on account of a number of studies, which have started to distinguish speaking as a skill in its on right[5]. Foster and Skehan (1996) and Skehan (1998), for instance, proposed that L2 learners possess a limited processing capacity that causes trade-off effects between the dimensions of fluency, accuracy, and complexity. This means that, during language production there exists a competition for attentional resources among the goals of fluency, accuracy and complexity due to the fact that learners allocate attention to one aspect of production at the expense of others. According to Skehan (1998), this competition is particularly evident between the dimensions of complexity and accuracy.

In order to better understand the impact of trade-off effects on L2 production, a distinction among the dimensions of fluency, accuracy and complexity is needed. In the words of Skehan (1996) fluency means "the capacity to mobilize one's linguistic resources in the service of real-time communication, that is, to produce (and comprehend) speech at relatively normal rates, approaching, (but not necessarily identical) to one's own native-language speech rates" (p.48). In overall terms, accuracy refers to "freedom from error, based on whatever language is used" (Foster & Skehan, 1996, p.304). Complexity, in turn, relates to the use of more elaborated and organized language with greater variety of syntactic patterning (Foster & Skehan, 1996).

For the purposes of the present study it is also important to outline the several associations that may be inferred when learners decide to mobilize their attentional resources to one aspect of production in detriment of another. Based on Skehan (1996),

[5] Bygate (2001a) claims that a distinct methodology and syllabus may be needed to teach L2 speech production. This assumption implies the recognition of speaking as a skill in its own right (p.17).

a focus on accuracy may represent the learners who dislike taking risks and thus, they may be drawn towards the production of error free language as a result of their reluctance in using language they may be uncertain about. Moreover, a lack of fluency may reflect the fact that the learners are unable to cope with the pressures of real time communication and thus they may be more focused on the production of more complex or accurate language, either due to scarce opportunities for the proceduralization of language or because they have not yet developed a larger repertoire of chunks of language. Finally, a focus on accuracy may indicate that changes on the interlanguage system are less likely to occur and consequently speech will be slower and will consume a great amount of attentional resources (Skehan, 1996).

In addition, research conducted by Bygate (2001b) in L2 speaking suggested that previous experience of a task type can lead to overall improvements on task performance. In other words, task repetition may give rise to changes in L2 performance in terms of fluency, accuracy or complexity even when learners perform similar tasks as much as ten weeks apart.

Groundbreaking studies conducted at the Graduate Program in English at the *Universidade Federal de Santa Catarina* have also opened an avenue of investigations into the field of L2 speaking. In one of the most comprehensive and detailed studies in the area, Fortkamp (2000) suggested that working memory capacity correlates positively with L2 speech production in terms of fluency, complexity and accuracy, but correlates negatively with weighted lexical density. Furthermore, Fortkamp (2000) paid an invaluable contribution to research on L2 speaking by reviewing the most important studies conducted in the area of L2 speech production until the year 2000.

After initial research conducted by Fortkamp, several studies in L2 speaking started to be carried out at *Universidade Federal de Santa Catarina*. Among these

studies, it is important to outline research carried out by Boss (2004), D'Ely (2004), Massarollo, (2005), Silveira (2004), and Vieira (2004). Overall, Boss (2004) verified that task design can produce a distinct impact on L2 learners' oral performance. D' Ely (2004) showed the importance of manipulating the planning conditions under which learners' perform an oral task as well as of including instruction as a mid task activity followed by repetition, in an effort to lessen the trade-off effects on language production. Massarolo (2005) verified that although teachers do not have similar approaches and specific criteria in order to assess students' speaking performance, undergraduate L2 learners seem to be satisfied with their oral performance assessments. Silveira (2004) suggested that (1) the topic of the tasks has an impact on L2 learners' oral performance; (2) task types have distinct impacts on performance; and (3) task familiarity does not have an effect on L2 speaking performance. Finally, Vieira (2004) revealed a common group of communication strategies across proficiency levels and found a non-statistical significant correlation between communication strategies and L2 oral fluency, as measured by speech rate.

The review of literature presented in this chapter indicates that although the production of L2 speech may comprise various challenges and processing demands on the speaker, the studies conducted in the field of L2 speech production may prove L2 speaking to be a fruitful area of investigation. Studies exploring the impact of strategy instruction on L2 oral performance may also provide new pedagogical perspectives to the role of strategy instruction in the foreign language classroom.

The next chapter will describe the method used to investigate the effects of learning strategy instruction on learners' oral performance.

CHAPTER 3

METHOD

In order to investigate whether learning strategy instruction has an impact on L2 learners' oral performance, this study was designed on a pre- and post-instructional basis[6] with an experimental and a control group. Therefore, speech data for the present study were collected on two distinct occasions – on April 11th 2005, and on May 9th 2005. Participants' overall L2 oral performance, in both phases, was elicited by means of a video-based narrative on the dimensions of (1) fluency, (2) accuracy, (3) complexity, and (4) weighted lexical density. Data were also analyzed based on learners' reported strategy use in the pre- and post-instructional phases. Additional data assessing strategy use were obtained through learner diaries and a questionnaire evaluating the instructional phase of the study.

This chapter describes the method adopted to conduct this study and to analyze data in order to address the following research questions: (1) What are the effects of learning strategy instruction on L2 learners' oral performance? and (2) Is there a relationship between strategy use and L2 oral performance?

This chapter is subdivided into seven main subsections: (3.1) research setting; (3.2) participants of the study; (3.3) control of participants' oral proficiency; (3.4) instruments, including assessment of L2 speech performance and assessment of strategy use; (3.5) procedures; (3.6) data analysis of speech samples and strategy data; and (3.7) data transcription procedures.

[6] While the pre-instructional phase refers to the period prior to learning strategy instruction, the post-instructional phase refers to the period after strategy instruction was provided.

3.1 Research Setting

This study was carried out at UNESC (Universidade do Extremo Sul Catarinense), a private university located at the extreme south of the state of Santa Catarina. At the time of data collection, the university had a total college population of 9916 students, and offered 35 undergraduate courses in the areas of science, business administration, engineering, health, arts and humanities. Among these courses, the Letras *Licenciatura* course in English and Portuguese had 220 undergraduate students. Of the 220 students, 32 learners were attending the 7th semester. Classes in the Letras English/Portuguese course were held at building D at the university, from 7.00 to 10.30pm.

UNESC has been offering the Letras English/Portuguese course since 1975. According to a new program, established by the Letras Department from the university, students are required to attend eight semesters of English and Portuguese classes in order to graduate. However, students who entered the university prior to the year 2003 were requested to attend nine semesters, and thus followed the old program adopted by the Letras course. As a result, students enrolled in the old program had their teaching practice only in the ninth semester. Undergraduate English/Portuguese Letras students, in both programs, need to fulfill an average of 20 credits per semester.

It is worthwhile highlighting that the English/Portuguese Letras course offers, throughout the eight semesters, only one English group every semester. For instance, English I in the first semester, English II in the second semester, up to English VIII in the eighth semester. Each English group corresponds to four credits of classes. As a consequence, most of the other classes (16 credits, in total) are held in the Portuguese language. Thus, the Letras English/Portuguese course at UNESC has an evident focus on Portuguese subjects rather than on the English ones. It is also important to note that

all English classes in the Letras course (English I, II III, IV, V, VI, VII, and VIII) are divided into two groups, with an English teacher for each group. Moreover, the Letras English/Portuguese course offers two courses in American Literature, which are taught in the seventh and eight semesters of the course.

The Letras course at UNESC does not apply an in-house proficiency exam for freshmen. Therefore, the learners' L2 proficiency level upon entering the course is undetermined. Regardless of possible variations on students' proficiency level, all learners attend the eight English courses offered throughout the undergraduate program.

3.2 Participants of the Study

The participants of the present study were 22 undergraduate students enrolled in the 7th semester of the Letras (English/Portuguese) course at Universidade do Extremo Sul Catarinense (UNESC). Participants were divided into two groups: 11 students comprised the experimental group, while the other 11 encompassed the control group. Since English classes at UNESC are already divided into two groups, with an English teacher for each group, it was not necessary to select previously the participants of each group. Therefore, the two groups were named experimental and control on a random basis.

It is worth noting that in the initial phase of this study, 31 students volunteered to participate in the research (15 in the experimental group, and 16 in the control group). As a result, 31 undergraduate students signed a consent form (see appendix A for participants' consent form). Despite the overall L2 learners' willingness to participate in the study, only the 22 students who took part in all phases of the study could be considered participants. Consequently, fewer students than it was initially projected were selected for this research.

Participants' age in the experimental group ranged from 20 to 38 years, with a mean of 24.77. Students' age in the control group ranged from 20 to 40, with a mean age of 25.27 years. Except for one student, all participants were female, thus a predominantly adult female population. Tables 3.1 and 3.2 detail the breakdown of participants in each group by age, number of years studying English, students' evaluation of their L2 oral ability, and the language skill that the participant wishes to improve.

Table 3.1
Experimental Group: participants' profile by age, years studying English, evaluation, and objectives.

Students	Age	Years studying English	Students' own evaluation of their oral performance	Language skill would like to improve
1	21	3 – 4	poor	speaking
2	35	3 – 4	poor	listening
3	22	5 – 6	poor	writing
4	20	3 – 4	poor	speaking
5	23	3 – 4	poor	speaking
6	20	more than 6	poor	speaking
7	38	3 – 4	poor	speaking
8	20	5 – 6	poor	writing
9	25	more than 6	good	speaking
10	22	5 – 6	poor	speaking
11	21	3 – 4	poor	speaking

Table 3.2
Control Group: participants' profile by age, years studying English, evaluation, and objectives.

Students	Age	Years studying English	Students' own evaluation of their oral performance	Language skill would like to improve
12	22	more than 6	fair	writing
13	40	3 – 4	fair	reading
14	36	3 – 4	fair	speaking
15	21	more than 6	fair	speaking
16	21	more than 6	good	writing
17	21	3 – 4	fair	speaking
18	20	3 – 4	fair	reading
19	21	5 – 6	poor	writing
20	20	5 – 6	fair	reading
21	36	3 – 4	fair	listening
22	21	3 – 4	fair	speaking

Although most participants had been studying English for a period of three or four years at the university where this research was carried out, 11 participants, or 50%

of the learners, reported having a poor level of L2 oral proficiency. It is interesting to highlight that 10 out of these 11 learners were in the experimental group. On the other hand, nine students, or 40.90% of the participants, considered that they had a fair level of speaking proficiency. Only two participants, or 9.09% of the learners, evaluated their oral proficiency as good (one in the experimental and one in the control group). Not surprisingly, 13 students (59.09%) revealed a willingness to foster their speaking skills. On the other hand, four students wanted to improve their writing abilities, three participants showed a desire to improve their reading skills, and the remained two learners reported an intention to learn how to ameliorate their listening skills.

At the time of data collection, the participants of the study were using the book *New Interchange II* in their English classes. According to the authors of the series *New Interchange* level 2 takes students from the low-intermediate up to the intermediate level (Richards, 1998).

Undergraduate students enrolled in the 7th semester of the Letras course at UNESC were chosen because (1) research suggests that students at an intermediate level of language proficiency seem to benefit more from learning strategy instruction (Cohen, 1998; Oxford, 1996; Oxford, 1990); and (2) most studies on L2 oral production (D'ely, 2004; Foster & Skehan, 1996, Mehnert, 1998; Ortega, 1999; Varella, 1997) were conducted with intermediate learners. Despite indications that L2 strategy instruction appears to be more profitable for L2 learners at an intermediate level of language proficiency, the present study also considered the suggestion made by Cohen (1998) that both successful and less successful learners, at any level of language proficiency, can learn how to improve their production and comprehension of a foreign language by receiving explicit learning strategy instruction (Cohen 1998, p. 67). Anchored on this last suggestion, this study sought to investigate the effects of strategy instruction on L2

learners' oral performance considering the data provided by the 22 participants of the study.

It is important to highlight that by means of informal conversation with the English teachers from both control and experimental groups, it was revealed that some of the participants of the study seemed to have difficulties in performing oral tasks that demanded an intermediate level of L2 proficiency. This isolated fact, paired with participants' evaluation of their oral ability (11 as poor and 9 and as fair), led the present researcher to apply an assessment test (see section 3.3.1) so as to determine learners' oral proficiency level and thus control for possible variability on participants' speech data.

3.2.1 The teacher participant

In order to ensure that the experimental group received specific strategy instruction, this researcher acted as the teacher participant of the experimental group for a period of four weeks - from April 11th to May 2nd 2005 - which totaled 11 hours of learning strategy instruction (2 hours on April 11th and 3 hours on the following dates: April 18th, 25th, and on May 2nd). This researcher chose to be the experimental group teacher for the following reasons: (1) she had previously carried out small-scale studies in the field of L2 learning strategies, and (2) she had personal interests in the research on L2 oral production and learning strategy instruction. The teacher who provided strategy instruction for the experimental group holds a specialization degree in English and has been working as an English teacher at Unesc since 1998. At the time of data collection, the teacher participant had 10 year experience in L2 teaching.

3.3 Control of Participants' Oral Proficiency

The present study sought to determine participants' oral proficiency level by means of an assessment test. In order to achieve this end, a rating scale (see appendix B) devised by D'Ely and Weissheimer (2004) served as a guideline for external raters to assess learners' L2 speech performance. This scale was adapted from the Foreign Cambridge Examination (FCE) speaking test assessment and was originally developed by Iwashita, McNamara and Elder (2001).

3.3.1 Assessment of participants' L2 oral proficiency

The speech sample gathered to assess participants' level of oral proficiency was the same sample collected in the pre-instructional phase of the study. That is, on April 11th, control and experimental participants recorded a video-based narrative task which served both as the speech data to the phase prior to strategy instruction, as well as the speaking sample to be submitted to external raters. This researcher decided to use the first video-based narrative task recorded for the study, anchored on the following reasons: (1) to ensure that speech data would be collected from a single task since research suggests that production is influenced by whether L2 learners are requested to perform one task, or whether a secondary task is included (Robinson, 2001); and (2) to control for L2 learners' oral ability, which might present variations in performance[7] across different language tasks (Chalhoub-Deville, 1995; Ellis, 1985; Larsen Freeman & Long 1991, Tarone & Yule, 1989). Therefore, the speech data colleted also aimed at providing a more rigorous control over the L2 learners' ability as regards the speaking task devised for this study.

[7] As stated by Tarone and Yule (1989) "there can be no doubts that the linguistic forms produced by the second language learners vary markedly as those learners move from one situation to another and one task to another" (p.13). Following the same vein, Chaulhoub-Deville (1997) asserts that diverse elicitation tasks might produce variation on L2 speech performance (p.55).

It is worthwhile noting that at the time the data were collected for the study, the results of the oral assessment test were not yet available since the speech samples were being analyzed by three expert raters. Despite not having access to the complete results of the oral assessment procedure until the last phase of data collection, it was assumed that participants of the study would form a relatively homogenous group based on their reported number of years studying English, as well as their willingness to foster their English skills. Additionally, the majority of participants evaluated their oral proficiency in English as fair or as poor. These two isolated facts were taken as an indication that the participants would form a relatively homogenous group to participate in the present study.

3.3.2 Raters assessment of L2 learners' oral performance

Care was taken to select three expert raters to score participants' overall L2 speaking ability. In this sense, all raters chosen for this research were trained English teachers who were pursuing either a master's or a doctor's degree in Applied Linguistics at UFSC. Moreover, in order to account for either native or non-native judgments on L2 oral performance, one of the raters selected was an English native speaker. Equally important is the fact that all three examiners had previous experience using the assessment scale adapted by D'Ely and Weissheimer (2004).

All raters received a CD containing the oral speech data of the 22 participants, along with 22 charts for providing rating scores to each student. In each chart (see appendix C) raters scored L2 oral performance on the basis of grammatical accuracy, complexity, fluency, and lexical appropriateness. Furthermore, raters received written instructions on how to score the samples.

Raters were also requested to write their own names, and the participants' number on each of the scoring charts given to assess L2 speech performance. Due to the fact that participants' L2 oral performance was judged on four variables, each subject received a total of 12 scores (four scores per rater on the following categories: grammatical accuracy, fluency, complexity, and lexical appropriateness). These scores were later submitted to statistical treatment in order to compute raters' level of agreement (McDonough & McDonough, 1997, p. 198) on the scores provided for L2 speaking performance.

3.3.3 Participants' L2 speech performance scores

The rating scale (see appendix B) adopted in the present study contains three main divisions. It also displays some features that deserve further explanation. The first important characteristic of this scale is the provision of a series of scores ranging from 0.0 to 5.0. The scale allows the provision of scores within three main levels of oral proficiency. While the scores given from 1.0 to 2.0 would suggest that the L2 learner presents a beginner level of oral proficiency, the scores ranging from 2.5 to 3.5 would place the participant at an intermediate level of oral proficiency. As a consequence, L2 learners who perform above 4.0 would be considered advanced L2 speakers.

It is important to outline, however, that the rating scale adopted for this study also accounts for subtle differences in between the three levels of oral proficiency. For instance, a score of 2.0, which would categorize the L2 speaker as a beginner, could already carry traces of a low intermediate level of proficiency for being relatively close to the 2.5 score. In this sense, the scores ranging from 2.0 to 2.4 could represent those L2 learners who might be in the process of relocating from a beginner towards an intermediate level of proficiency. By the same token, L2 learners obtaining a score

ranging from 3.5 to 3.9 might display features of high intermediate L2 learners who could be shifting to an advanced level of language of proficiency.

Besides acknowledging the fact that the three levels of L2 oral proficiency may somewhat overlap one another, this assessment scale was chosen based on four important reasons: (1) the scale allows the evaluation of L2 speech performance on the basis of grammatical accuracy, fluency, complexity, and lexical resource; (2) previous research in the field of L2 speech production asserts that accuracy, fluency, complexity, and lexical density seem to provide a global view of L2 speakers' performance (Fortkamp, 2000, p. 87); (3) this rating scale has already been employed in a pilot study conducted by D'Ely (2004), which investigated the impact of three distinct metacognitive processes - strategic planning, repetition, and planning for repetition - on L2 learners' speaking ability; and, (4) this assessment scale can lessen the possibility of subjectivity on raters' scores for providing specific guidelines to score L2 speech performance (Fulcher, 2003).

For the purposes of the present study, the scores provided by the three external raters were averaged in order to obtain a single score for participants in the experimental and control groups. According to this summary score, and following the assessment scale adopted for this study, each student was placed as a beginner, intermediate, or advanced L2 speaker. It is important to emphasize, however, that this performance score refers exclusively to the speech data provided by the narrative task recorded in the pre-instructional phase of the study. Table 3.3 shows the mean performance score obtained by each participant in both the experimental and control groups.

Table 3.3

Mean performances scores for *participants in Experimental and Control groups*

Experimental Group	Mean performance score	Control Group	Mean performance score
1	1.00	**12**	0.92
2	2.25	**13**	1.08
3	1.75	**14**	1.50
4	2.25	**15**	3.75
5	1.17	**16**	3.13
6	2.00	**17**	1.50
7	1.17	**18**	1.29
8	1.83	**19**	1.08
9	3.67	**20**	2.50
10	1.08	**21**	1.21
11	1.08	**22**	1.88
Total average score	1.75		1.80

The mean performance score obtained for each participant demonstrated that, in the experimental group, eight students were placed at a beginner level of oral proficiency, two were considered intermediate, and only one student was placed at an advanced level. Identical results were obtained in the control group concerning the participants' level of speaking proficiency: eight beginners, two intermediate, and one advanced. Total average scores displayed a rather minor difference between control and experimental groups: L2 oral performance scores averaged 1.75 for the students in the experimental group and 1.80 for students in the control group. In this sense, the total average scores obtained for experimental and control groups – 1.75 and 1.80 respectively - might suggest that the participants of the study could be placed at a beginner level of L2 oral proficiency. It might also be argued that the participants of the study might be in the process of relocating to a low intermediate level of proficiency for being relatively close to the 2.0 score. For the purposes of the present study, however, it is important to underscore the fact that all participants were considered L2 learners at a beginner level of speaking proficiency.

Despite the rather similar total scores obtained by the students in the experimental and control groups, a statistical procedure, the Independent Samples t-test, was used in

an effort to compare the scores of both groups and verify whether the groups were homogeneous as regards their level of L2 oral proficiency. Table 3.4 shows the descriptive statistical results for the mean scores obtained for experimental and control groups

Table 3.4
Descriptive statistics for reported mean scores in the experimental and control groups

Group	Mean	N	Std. Deviation
Experimental	1.7500	11	.7984
Control	1.8030	11	.9300
Total	1.7765	22	.8463

Results of Independent Samples t tests indicated that there were no statistically significant differences between the scores of experimental and control groups ($t = 0.143$; $p = 0.887$; $p > 0.05$). Therefore, the two groups could be considered to be homogeneous as regards their L2 oral proficiency level.

3.3.4 Interrater reliability

In order to validate the scores given by the three raters, a Principal Component Analysis[8] was employed. The raters' scores were submitted to a Principal Component Analysis in order to determine the amount of shared variability each rater exerted (Stemler, 2004, p.8) on the four L2 speaking dimensions being evaluated. This shared variability demonstrated whether external raters arrived at a common construct to evaluate L2 speech performance.

The first Principal Component Analysis indicated an interrater agreement score of 83.34%, thus suggesting that the three judges reached a relatively high level of agreement in their assessment of participants' performance (the interrater agreement

[8] It is worth highlighting that the principal component analysis was chosen based on Stemler's (2004) assumptions that (1) this procedure is able to show the extent to which multiple judges are rating a common construct; and (2) this method can tackle slight variations as regards the raters' severity in providing scores for each of the variables under evaluation.

provided by the Principal Component Analysis can be seen in appendix D). According to Stemler (2004), a shared variance greater than 60% given by the Principal Component Analysis demonstrates that the judges arrived at a common construct, which is the case of the present study. The correlation matrix shown in table 3.5 provides, thus, a synthesis of all the correlations within the variables analyzed by each of the three raters:

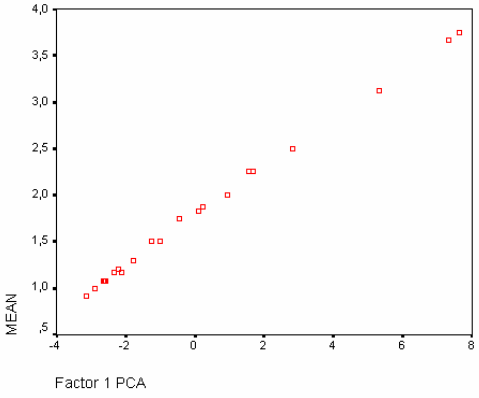
Table 3.5
Correlation matrix

	R1_G	R1_L	R1_C	R1_F	R2_G	R2_L	R2_C	R2_F	R3_G	R3_L	R3_C	R3_F
R1_G	1.00											
R1_L	0.94	1.00										
R1_C	0.87	0.90	1.00									
R1_F	0.89	0.92	0.93	1.00								
R2_G	0.66	0.74	0.69	0.79	1.00							
R2_L	0.67	0.74	0.67	0.77	0.98	1.00						
R2_C	0.58	0.66	0.60	0.74	0.94	0.95	1.00					
R2_F	0.62	0.69	0.69	0.77	0.93	0.93	0.92	1.00				
R3_G	0.82	0.84	0.76	0.84	0.86	0.87	0.79	0.81	1.00			
R3_L	0.83	0.83	0.72	0.81	0.83	0.86	0.78	0.77	0.99	1.00		
R3_C	0.83	0.80	0.73	0.83	0.86	0.86	0.81	0.83	0.96	0.97	1.00	
R3_F	0.79	0.81	0.76	0.82	0.85	0.85	0.80	0.83	0.92	0.90	0.92	1.00

R1= Rater 1	L= Lexical appropriatness
R2= Rater 2	C= Complexity
R3= Rater 3	F= Fluency
G= Grammatial accuracy	

In addition, Figure 3.1 demonstrates the significant correlation between the first principal component analysis and the average scores obtained by the participants in both experimental and control groups (see scatterplot below):

Figure 3.1
Scatterplot



3.4 Instruments

Five data collection instruments were used in order to carry out the present study which investigates the effects of strategy instruction on L2 learners' oral performance: a background questionnaire, a recorded video narrative, a pre- and a post-instructional questionnaire assessing strategy use, learner diaries, and a questionnaire aimed at evaluating the instructional phase of the study. Participants' L2 speech performance was assessed by means of a recorded video-based narrative. Participants' strategy use was elicited through the responses provided in pre- and post-instructional questionnaires, learner diaries, and the evaluation questionnaire. Instruments were chosen following previous research conducted on learning strategy instruction (Reis, 2004; Lucena & Fortkamp, 2001; Cohen, 1998; Varella, 1997; Oxford, 1990; O'Malley, Chamot, Manzanares & Russo, 1985. The five instruments used are described in detail in the following subsections.

3.4.1 Background questionnaire

A background questionnaire (see appendix E for the background questionnaire) was applied in the pre-instructional phase of the study with the objective of gathering information related to (1) participants' profile and beliefs regarding their L2 proficiency as well as (2) learners' perceptions on foreign language teaching and learning. According to Oxford (1990b), background questionnaires have been widely used in the research on strategy instruction and L2 learning strategies, since they provide essential information on student characteristics (p.281), such as age, gender, number of years studying English, and reasons for learning a foreign language. Furthermore, questionnaires are valid features to help teachers better understand and evaluate how students go about learning a foreign language, whether students are more or less

motivated to learn, whether they wish to improve a language skill or not, and how learners evaluate their own L2 performance, among other important factors (Oxford, 1990b).

The background questionnaire designed for this study contained 14 questions that aimed at providing important information on participants' profile as L2 learners. From the 14 questions, four were closed, eight were open-ended, and two were mixed (students had to provide scores on the reasons for studying English, and rate the language skills according to their importance). In general terms, questions 1 to 5, aimed at obtaining information on participants' characteristics (age, gender, and number of years studying English). Questions 6 to 14 aimed at gathering information as regards learners' evaluation of their L2 proficiency as well as eliciting participants' features and objectives as regards their L2 learning.

3.4.2 Assessment of L2 speech performance

Participants' L2 speech production was elicited by means of a *Tom and Jerry* video-based narrative task that was recorded in the pre- and in the post-instructional phase of the study. Thus, the 22 participants of this study provided 2 speech samples each, resulting in a total of 44 samples (one sample per participant in each phase of the study). The video-based narrative task was chosen based on previous research conducted in the field of L2 speech production (e.g. Ortega, 1999) asserting that narratives are familiar to most learners and that story-retelling tasks have traditionally been used in SLA research (Ortega, 1999, p. 122). Moreover, *Tom and Jerry* film cartoons have been used in recent studies (Bygate, 2001b; D' Ely, 2004; Silveira, 2004) to elicit L2 learners' speaking performance.

3.4.2.1 The video-based narrative task

Participants from both experimental and control groups watched a *Tom and Jerry* cartoon in the presence of this researcher, and recorded their narratives at a language lab. In the words of Bygate (2001b), *Tom and Jerry* cartoons are considered appropriate for collecting oral data for three important reasons. First, *Tom and Jerry* cartoons are expected to be familiar to most L2 learners. Second, retelling a cartoon story might comprise a feasible task as regards the processing loads needed for organizing L2 speech. Third, participants' performance will not be influenced by their listening comprehension since the cartoon is presented with the sound off (Bygate, 2001b, p. 31).

Detailed instructions (see Appendix F) were given to participants concerning how the video narrative task should be performed. Participants were also informed that they would have 10 minutes prior to recording their narratives. However, no information was provided as regards what should be done during the 10 minutes[9]. In fact, this planning condition was given to participants because research indicates that providing 10 minutes prior to task performance seem to yield a positive impact on learners' L2 speech production (Foster and Skehan, 1996; Menhert, 1998). Therefore, it was assumed that allowing participants to plan what to say would optimize their use of time, which in turn, would produce L2 speech that was more fluent, complex, accurate, and lexically dense.

Participants were explicitly told that they would not be allowed to keep any notes during task performance. This measure was taken in an effort to collect data from participants' L2 speech production and thus avoid the possibility that participants would read or look at their notes while recording the video narrative task. It is worth outlining that despite performing the same narrative task in the pre- and post-instructional phase,

[9] According to Skehan (1996) when learners do not receive any guidance prior to a planning condition they engage in undetailed planning. Under undetailed planning learners work with their own resources and are free to prepare the task as they wish.

participants watched a distinct *Tom and Jerry* cartoon in each phase. In the pre-instructional phase participants watched the cartoon *Saturday Evening Fuss*, and in the post-instructional phase students watched *The Zoot Cat.* Both cartoons lasted approximately seven minutes and were chosen for portraying usual rows between the characters of Tom and Jerry.

3.4.3 Assessment of strategy use

Three instruments were adopted in order to assess strategy use: pre- and post-instructional questionnaires, learner diaries, and a questionnaire aimed at evaluating the instructional phase of the study. Pre- and post-instructional questionnaires were applied for both the experimental and control groups. Learner diaries and the evaluation questionnaire, however, were used at the instructional phase exclusively for the students in the experimental group. Both learner diaries and the responses to the evaluation questionnaire were analyzed in order to examine whether participants in the experimental group confirmed the strategies reported on their pre- and post-instructional questionnaires. The three instruments adopted to elicit strategy use are described in the following subsections.

3.4.3.1 Pre- and post-instructional questionnaires

Immediately after recording the narrative task at the language lab, participants were asked to record their oral responses to the pre-instructional questionnaire. This questionnaire aimed at unfolding the processes or strategies learners adopted to prepare for and to perform the first video-narrative task (see appendix G for the pre-instructional questionnaire). According to Chamot (2005), a questionnaire is the most efficient method for identifying students' learning strategies after task completion. In a similar

vein, Cohen and Scott (1996) suggest that verbal report measures and their related formats (e.g., questionnaires or interviews) allow researchers to investigate learners' thinking process and thus they can provide "the most viable means of obtaining empirical evidence" (p.75) regarding strategies used before, during, or after performing L2 tasks.

In the present study participants were asked to answer the pre- and post-instructional questionnaires in Portuguese in order to ensure that target language performance would not hide the procedures learners engaged in while preparing and performing the narrative task. In other words, it is assumed that requesting students to produce verbal reports in the target language might be counterproductive (Nyhus, 1994) because learners might be unable to report the strategies employed prior to or after task completion due to concerns related to L2 speech performance.

The questionnaire applied in the pre-instructional phase of the study consisted of eight open-ended questions (see appendix G). In overall terms, questions 1 to 3 aimed at eliciting the procedures learners engaged in while preparing the narrative task and narrating the cartoon. Questions 4 and 5 sought to obtain information concerning whether students were already familiar with strategy use. Questions 6 to 8 referred to the procedures needed in order to successfully perform a video-narrative task as well as an individual evaluation of the participants' narratives.

In the post-instructional phase of the study, participants were given another questionnaire (see appendix H for the post-instructional questionnaire) containing three additional questions to the eight questions provided in the pre-instructional phase. Again the participants followed the same procedures adopted in the pre-instructional phase, and recorded their responses to the post-instructional questionnaire. In overall terms, while question 9 aimed at unfolding how participants compared their L2 speech

performance in the pre- and post-instructional phases, question 10 requested participants to describe what they had done differently in the narrative performed in the post-instructional phase. Question 11 referred to the improvements needed in order to perform another video narrative.

The learners' responses obtained through pre- and post-instructional questionnaires were recorded at a language lab and were later transcribed for analysis. The transcription provided data to identify the strategies employed by participants before, during, and after task performance. The total number of strategies reported by each participant was gathered in the pre- and post-phases of the study, for both experimental and control groups. This analysis also provided information to evaluate whether participants in the experimental and control group reported the strategies of planning, monitoring, and evaluation, which were taught in the instructional phase. Learners' data provided by the experimental and control groups were compared and analyzed in order to investigate whether there was a relationship between strategy use and L2 oral performance.

3.4.3.2 Learner diaries

Participants in the experimental group were requested to complete the sentences of a learner diary page during the instructional phase of this study. Learner diaries were used to help students develop metacognitive awareness[10] of their learning process (Rubin, 2003) and thus provide data to identify the strategies learned or used during strategy instruction. This instrument (see appendix I for the learner diary page) was also chosen based on research in the field of L2 strategy instruction (Oxford, 1996) which lists three important reasons for using diaries in L2 classrooms. First, diaries can

[10] According to Anderson (2002), metacognitive awareness refers to the knowledge and self-awareness a learner has as regards his/her learning process. For this researcher, learners who are metacognitively aware know what to do in order to approach and perform different language tasks.

serve as a means of expressions for those students who may not be able to “tell the stories of their current language learning” (Oxford, l996, p.18). Second, learners’ diaries offer students an invaluable opportunity to evaluate their own learning. Third, diaries yield essential information about strategy use, and help learners establish achievable goals for successful L2 learning.

The learner diary page designed for this study consisted of seven sentences that were completed by participants in the experimental group. In general terms, while sentences 1 to 3 aimed at obtaining an overview of what had been learned in class, sentence 4 intended to gather information regarding the strategies used and practiced during the instructional class. Sentence 5 aimed at unfolding the main difficulties students had in class, and sentences 6 and 7 refer to the goals students established for the instructional phase of the study.

As strategy-instruction was provided during a four-week period, each participant in the experimental group was requested to complete a learner diary page at the last 20 minutes of each class. Diaries were collected by the researcher and a set of four diaries per student was analyzed. Besides providing data to assess strategy use, learner diaries served as a means to elicit students’ personal observations while being exposed to strategy instruction.

3.4.3.3 Evaluation of the instructional phase

On the last day of instruction, students in the experimental group answered a questionnaire (see appendix J), aimed at evaluating the instructional phase of the study. The evaluation questionnaire was again designed in Portuguese, following Nyhus (1994) who suggests that a questionnaire in the target language might be counterproductive for data collection purposes.

The evaluation questionnaire was chosen with the primary purpose of obtaining participants' views as regards the instructional phase and thus gain insights on whether strategy instruction was beneficial to students. Moreover, this instrument sought to gather information concerning participants' strategy use, which in turn would provide additional data to verify whether students in the experimental group confirmed the strategies reported in their pre- and post-instructional questionnaires.

The evaluation questionnaire designed for this study consisted of nine open-ended questions. In overall terms, questions 1 to 3 asked participants to provide an evaluation of the instructional phase and determine the learners' use of language learning strategies prior to the instructional phase. Questions 4 to 7 aimed at obtaining information as regards students' strategy learning during the instructional phase and unfold whether learners intended to use strategies after the instructional phase. Questions 8 and 9 aimed at unraveling whether any of the strategies taught could yield an impact upon their L2 oral performance, and elicit whether any activity performed in the instructional phase was helpful in order to improve L2 speech performance.

3.5 Procedures for Data Collection

Following Varella (1997), who demonstrated that strategy instruction can lead to improvements in L2 speech performance, this research was designed on a pre- and post-instructional basis with an experimental and a control group. In what follows, the phases of the study will be presented.

3.5.1 The pre-instructional phase

The pre-instructional phase of the study took place from February 28th, 2005 to April 4th, 2005, when this researcher observed three classes in the experimental group,

and three classes in the control group. As a result, six classes of 210 minutes each were observed. The main objectives of the observation period were (1) to provide opportunities for participants, in the experimental and control groups, to get familiar with the presence of the this researcher during all phases of the experiment; (2) to observe students' attitudes towards speaking English in classes; and, (3) to determine whether students in both groups were encouraged to use language learning strategies when approaching different language tasks.

Classes observed in the pre-instructional phase of this study revealed that the majority of students, both in the experimental and control groups, seemed to present the same profile. That is, students often resorted to their dictionaries during classes and appeared to be unwilling to speak English. Classroom observation prior to strategy instruction also led this researcher to assume that the majority of students did not present positive attitudes towards L2 speaking. This assumption is based on students' attitudes during classes in which they would remain quiet or would speak mostly in Portuguese. Moreover, it was observed that most learners demonstrated little or no awareness as regards strategy use in order to approach L2 language tasks. The following conversation illustrates the usual pattern of interaction at play among participants of the study and the teachers from the experimental and control groups:

> **Teacher**: So students. Did you watch the Oscar last night?
> **Students**: Yes.
> **Teacher:** What's your opinion about the awards?
> **Student 1:** Posso falar em Português?
> **Teacher:** Well...
> **Student 1:** Eu acho que o Oscar é uma festa tipicamente americana. Quanto aos filmes ….

The above conversation demonstrates that although teachers made an effort to speak English in class, students had a tendency to produce large chunks of language in Portuguese rather than in the target language. Moreover, my 10-year experience as a language teacher also led me to assume that most participants of the study had an

inadequate level of L2 proficiency considering the fact that they were attending the 7th semester of the Letras English/Portuguese undergraduate course. Based on the information obtained throughout the observation period, this researcher decided to select three metacognitive strategies for explicit learning strategy instruction to the students in the experimental group. The strategies chosen were (1) planning what to say, (2) monitoring output, and (3) evaluating speaking performance.

The strategies of planning, monitoring, and evaluation were also selected based on O'Malley and Chamot's (1990) proposition that L2 learners "without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions"(p.8). Additionally, the three metacognitive strategies were chosen following research conducted by Lucena and Fortkamp (2001), which suggests that the explicit instruction of the strategies of planning, monitoring, and evaluation yields a positive impact on students' L2 speech performance.

On the last day of the observational period all participants were asked to go to the language lab in the following class (April 11th) in order to perform the first task devised for the study. Although students were not given additional information regarding the task that would be performed, this researcher highlighted that students' participation was extremely important in all phases of the study.

On April 11th all participants performed a video-based narrative task, which provided L2 speech data for the pre-instructional phase of the study. Participants were informed that they would watch a seven-minute *Tom and Jerry* cartoon with the sound off and that after watching it they would need to retell the story in detail. Each participant story retelling was recorded at an individual cabin booth at the language lab. Participants also received detailed instructions on how the task should be performed,

and they were explicitly instructed not to turn off the tape recorders before finishing the story retelling. Participants, in both the experimental and control groups, watched and recorded their stories in the language lab, in the presence of this researcher and the two teachers from the experimental and control groups.

Soon after recording the story retelling, participants were given the pre-instructional questionnaire to elicit the strategies employed before, during, and after performing the narrative task. Participants were instructed to pay close attention to the questions given, and right after, they could start recording their answers. Subsequently, participants in the experimental group were taken to building P, room 2, for the first instructional class of the study. Participants in the control group, on the other hand, remained at the language lab and continued having regular English classes during the instructional phase of the study.

3.5.2 The instructional phase

In order to ensure that this study would control for possible exchange of information between learners in both groups, the two English teachers from the 7th semester of the Letras course were required to follow specific guidelines during the course of strategy instruction. Therefore, the teacher in charge of the control group was guided to teach regular English classes during the phase of strategy instruction, that is, to continue working with the unit 13 of the textbook *New Interchange 2* entitled *'A terrific book but a terrible movie'* which dealt with the topics of entertainment, movies and books. The regular teacher of the experimental group, in turn, was invited to observe the instructional classes devised for the present study. In addition, the regular teacher of the experimental group was strongly advised not to discuss the content of classes during the instructional phase neither with the control teacher, nor with other L2

learners. The regular English teachers (of each group) were told that these measures were taken in an effort to guarantee that only the experimental group would receive the instruction designed for the present study.

The instructional phase of this study took place from April 11th, 2005 to May 2nd, 2005, which totaled 11 hours of strategy instruction within a four-week period. This phase consisted of teaching learners the benefits of using the metacognitive strategies of planning, monitoring, and evaluation to improve L2 speaking performance. In order to provide specific learning strategy instruction, the three metacognitive strategies were illustrated in large posters (see appendix K for the posters of the metacognitive strategies), which were strategically placed in the classroom. Banners containing the names of the strategies taught were also displayed along the walls (see appendix L for pictures of the banners in class). The instructional phase also included awareness raising activities, music (see appendix M for the lyrics), handouts, explanation, practice of the strategies taught, and oral production activities. Classes were presented with the aid of data show equipment (see appendix N for the slides presented), overhead projector, DVD, television, and CD player. At the end of each of the four instructional sessions, students had to complete a learner diary page.

Overall, the first session (April 11th), which lasted two hours, consisted of the presentation and discussion of the strategies of planning, monitoring and evaluation to experimental group participants. The three additional sessions, in the instructional phase of the study, lasted three hours each. In the second session (April 18th), the metacognitive strategies devised for the study were reviewed, a model for planning the story retelling was presented (see appendix O), and learners engaged in awareness raising activities, such as a video based-narrative recorded by this researcher (see appendix P for the transcripts). On April 18th, students were also encouraged to record a

video-based narrative and were taught how to apply the three metacognitive strategies devised for this study to L2 oral performance. In the third session (April 25th), students evaluated the positive aspects of their narratives as well as highlighted the features that required improvement. In addition, students provided suggestions concerning the speaking performance of participants 4, 6, and 9, who volunteered to have their narratives listened to and evaluated. In the final session (May 2nd), students discussed the impact of the strategies of planning, monitoring and evaluation to their L2 speaking ability, and were asked to play the strategy game (see appendix Q) in which they had to provide specific strategies in order to help learners overcome difficulties concerning L2 speaking tasks. Finally, the instructional phase of the study was evaluated through a questionnaire and the last learner diary page was completed by the participants (Appendix R provides a detailed description of the instructional phase).

3.5.3 The post-instructional phase

The third and final phase of this study took place on May 9th, 2005. Participants in both groups were requested to follow the same procedures adopted in the pre-instructional phase of the study: that is, to watch a *Tom and Jerry* cartoon with the sound off and, after 10 minutes of planning condition, have their narratives recorded at a language lab. As a final requirement, experimental and control group participants recorded their responses to the post-instructional questionnaire in order to assess the strategies they used before, during, and after task performance.

3.6 Data Analysis

This study analyzed data from four sources in order to address the following research questions: (1) What are the effects of learning strategy instruction on L2

learners' oral performance; and (2) Is there a relationship between strategy use and L2 oral performance?

Data were mainly analyzed from a quantitative perspective to investigate L2 speech performance and reported strategy use. A qualitative analysis, however, was also employed so as to examine reported strategy use. The quantitative analysis aimed at (i) evaluating participants' L2 speech performance on the basis of fluency, accuracy, complexity, and weighted lexical density; (ii) determining participants' reported strategy use in the pre- and post-instructional phases the study; and (iii) establishing the relationship between reported strategy use and learners' oral performance. The qualitative analysis evaluated data provided by the learner diaries and the questionnaire evaluating the instructional phase. Qualitative investigation was carried out in order to verify whether participants in the experimental group were coherent with their reported strategy use, in both phases of the study. That is to say that, the results obtained through qualitative analysis were coupled with quantitative results evaluating strategy use in order to determine whether the students in the experimental group reported the same number of strategies during pre- and post-instructional performance. The data analysis of speech samples and strategy data will be detailed in the following subsections.

3.6.1 Data analysis of speech samples

Speech data was elicited by means of a video-narrative task on the basis of fluency, accuracy, complexity, and weighted lexical density. Quantitative measures for assessing these four dimensions of L2 oral production were employed following Fortkamp (2000) study, which suggests that measuring speech data in terms of fluency, accuracy complexity and lexical density can provide "a global view of L2 speech

performance since they are intended to capture complementary aspects of the multidimensional process" (Fortkamp, 2000, p.87) of L2 speaking.

Fluency was measured through learners' speech rate, which was determined by means of pruned and unprunned words produced in each speech sample. While the latter refers to all the words produced by the speaker, the former refers to all the words produced excluding repetitions (Lennon, 1990). Speech rate unprunned was calculated by dividing the total number of words produced by the time the participant took to speak, which was expressed in seconds. The result was then multiplied by 60 so as to express the total number of unprunned words produced per minute. The measure of speech rate pruned[11] followed the same formula: the total number of pruned words was divided by the time the participant spoke, which was expressed in seconds. The result was then multiplied by 60 so as to yield the number of pruned words produced per minute.

Accuracy was calculated by dividing the total number of errors (errors in syntax, morphology, and lexical choice) by the total number of words produced by the participant, and the result was multiplied by 100 in order to have the number of errors produced per 100 words. Complexity was measured by dividing the total number of subordinate clauses by the total number of words transcribed and the result obtained was multiplied by 100 in order to have the number of subordinate clauses per 100 words.

Lexical density of speech data was measured by determining the weighted lexical density of each sample. In order to establish the weighted lexical density it was necessary to classify all the linguistic items produced by the speaker as either

[11] According to Fortkamp (2000), speech rate pruned is a more specific measure and reflects "a more straighforward expression of ideas and unimpeded articulation of words"(Fortkamp, 200, p.88).

grammatical or lexical items. Following Fortkamp, (2000, p.92-93) the category of grammatical items includes (1) all modals and auxiliaries; (2) all determiners, including articles, demonstratives, and possessive adjectives, quantifiers (*some, any*), and numerals (cardinal and ordinal); (3) all pronouns (*she, it, they, someone, something*) and *this* and *that* when used to replace clauses; (4) interrogative adverbs (*what, when, how*) and negative adverbs (*not, never*); (5) all contractions of pronouns and auxiliary verbs (contractions were counted as one item); (6) all prepositions and conjunctions; (7) all discourse markers including conjunctions (*but, so, and*), sequencers (*next, finally),* particles *(oh, well*), lexicalized clauses (y*ou know, I mean*), and quantifier phrases (*anyway, somehow, whatever*); (8) all lexical filled pauses (*so, well*); (9) all interjections (*really, oh*); (10) all reactive tokens (o*k, no!*).

The category of lexical items includes (1) nouns, adjectives, verbs, adverbs of time, manner and place; (2) multi-word verbs, phrasal verbs, and idioms were counted as one item; (3) contractions of pronouns and main verbs were counted as one lexical item (Fortkamp, 2000, p. 93).

Moreover, lexical and grammatical items were divided into high frequency lexical and grammatical items, and low frequency lexical and grammatical items. A high frequency lexical and grammatical item was the one appearing more than once in the speech sample. Distinct forms of the same lexical or grammatical items formed by inflection or derivation (e.g. see/saw, this/these) were considered instances of repetition and thus counted as a high-frequency lexical or grammatical item. The number of high and low frequency lexical and grammatical items were calculated as frequency counts. Following Fortkamp (2000), high-frequency items were given half of the weight of low-frequency lexical and grammatical items. The total number of weighted lexical items was thus obtained, then divided by the total number of weighted linguistic items, and

multiplied by 100 in order to have the percentage of weighted lexical items in the speech sample analyzed.

For all measures, the researcher and an inter-rater analyzed L2 speech data in order to reach an agreement in the data analysis. The data analysis compared the pre- and post-instructional results, in both the experimental and control groups, in order to determine the effects of strategy instruction on subjects' overall speaking ability, and the relationship between reported strategy use and L2 oral performance. L2 oral development was determined by (1) comparing the results of the experimental group, before and after the instructional phase, and (2) by comparing these results to the results obtained by the control group, which was not exposed to explicit strategy instruction.

3.6.1.2 Statistical procedures

A statistical treatment was given to the results obtained in the pre- and post-instructional phases of the study, for both the experimental and control groups, in order to provide a more detailed analysis of whether strategy instruction yielded an effect on learners' L2 oral performance. The statistical software employed was SPSS for windows. For all tests a level of significance of 0.05 was adopted.

In order to analyze the data, the following statistical procedures were employed: (1) descriptive statistics, including means, and standard deviations; (2) Independent samples t-tests; (3) a Pearson's Product Moment of Correlation; and (4) a General Linear Model (GLM) repeated measures. In overall terms, the descriptive statistics provided an overview of participants' performance as regards the speaking dimensions under investigation, as well as participants' strategy use. The Independent samples t-tests, in turn, determined whether experimental and control groups were consistent in performance during the pre-instructional phase of the study in terms of (1) the speaking

dimensions being investigated (i.e., fluency - speech rate unpruned and speech rate pruned - accuracy, complexity and weighted lexical density; and, as regards (2) reported strategy use.

Upon attaining a significant correlation in performance for the pre-instructional phase of the study, the third statistical procedure adopted was a Pearson's correlational analysis of pre- and post-instructional performance in each of the investigated measures. It is worthwhile highlighting that Pearson's correlational analyses were also employed in order to determine the most suitable statistical treatment so as to specify the factors that may account for possible differences in performance between the pre- and post-instructional phases.

After determining the Pearson's correlation coefficients of participants' performance – in terms of fluency, complexity, accuracy, weighted lexical density and reported strategy use – between both phases of the study, a GLM repeated measures was performed. This latter statistical treatment was considered appropriate for the present study because it allows to determine whether gains or losses (between pre- and post-instructional performance) are different for experimental and control groups and whether differences in performance could be attributed to (1) individual factors (within subjects), (2) experimental factors (between subjects), or (3) to the interaction between individual and experimental factors.

3.6.2 Data analysis of strategy use

Following Varella (1997), participants' reported strategy use was also analyzed on a quantitative basis so as to provide the total number of strategies reported by each participant (from experimental and control groups), in both phases of the study. In order to establish the total score for reported strategy use, each participant was given one

point when one of the three strategies taught (i.e., planning, monitoring and evaluation) was reported in the questionnaires (pre- and post-instructional questionnaires) applied immediately after the narrative task, for a possible total score of three. It is noteworthy highlighting that evidence of strategy use was obtained either when students labeled the strategy employed or when they described the procedures adopted prior to or after task performance. In other words, it was not necessary to name the three instructed strategies in order to provide evidence of strategy use.

Participants' reported strategy use, from pre- and post-instructional phases, were compared and analyzed in order to investigate whether there was a relationship between strategy use and L2 oral performance. In this sense, the total score reported for strategy use was correlated with participants' L2 performance in the pre- and post-instructional phases. Quantitative analysis of data were conducted through the employment of the statistical procedures described in section 3.6.1.2.

Data on reported strategy use were also analyzed qualitatively from learner diaries and from the questionnaire evaluating the instructional phase of the study. Qualitative analyses were carried out following Allwright and Bailey (1991), who analyze qualitative data from an interpretational, naturalistic, subjectivist and reflexive perspective. Evidence of strategy use on learner diaries was obtained through the analysis of question 4: '*The strategies I learned and practice were'*. Additional data on strategy use were gathered by analyzing questions 2 and 4 in the evaluation questionnaire. In overall terms, while question 2 aimed at determining whether students used any strategies prior to the instructional phase, question 4 sought to investigate whether students in the experimental group started using any of the strategies taught throughout the instructional phase.

3.7 Data Transcriptions Procedures

Participants' L2 speech samples (see appendix S for transcriptions conventions and speech samples) were recorded in 44 Ferro type I cassettes (22 cassettes for each phase of the study), and were later transcribed for analysis. Most of the transcription conventions adopted in the present study were based on Ejzemberg (2000). Some of the conventions, however, were created so as to represent particular features of L2 learners' speech data. These features were (1) words in quotation marks such as "festa" representing Portuguese words or coined words; (2) words in bold – **party** – indicating error; (3) words in slashes, to represent severely mispronounced words – /party/; and (4) (XXX), to indicate inaudible words.

The next chapter will present the results and discussion of the data analysis in the pre- and post-instructional phases of the study.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter presents and discusses the results of the quantitative and qualitative analysis performed in order to answer the research questions addressed in the study: (1) What are the effects of learning strategy instruction on L2 learners' oral performance? (2) Is there a relationship between strategy use and L2 oral performance?

This section is divided into 4 main subsections: Section 4.1 presents the descriptive statistical analysis employed for measures of L2 oral production and for the total number of strategies reported in the pre- and post-instructional phases of the study. It also presents the participants' individual scores on reported strategy use and on the L2 speaking dimensions under investigation. Section 4.2 presents the results of the three additional statistical treatments adopted. Therefore, it includes the results of Independent Samples t-tests, the Pearson's Correlational Analysis of experimental and control groups (between pre- and post-instructional phases), and the results of the General Linear Model (GLM) repeated measures. Section 4.2 also discusses the results of the present study in light of existing research in L2 speech production and L2 learning strategies. Section 4.3 presents the analysis of data from a qualitative perspective. Finally, section 4.4 answers the research questions addressed in the present study.

4.1 Descriptive Statistical Results

In the present study, the measures employed to investigate L2 oral performance followed Fortkamp (2000). As a result, fluency was approached as a dimension of L2 speech production that reflects continuous performance in real time and was assessed by

means of speech rate pruned and speech rate unpruned. Accuracy was measured in terms of the number of errors produced per 100 words (errors in syntax, morphology, and lexical choices – excluding errors immediately corrected by the speaker which indicated the use of monitoring). Complexity was assessed in terms of the number of subordinate clauses produced per 100 words. Finally, weighted lexical density was measured by calculating the percentage of weighted lexical items over the number of weighted linguistic items in each participant's speech sample.

As already explained in section 3.6.2 of the method, the measures employed to assess reported strategy use followed Varella (1997). In overall terms, each participant was given one point when one of the three strategies taught was identified in the questionnaire applied immediately after the narrative task, for a possible total score of three points in each phase of the study (i.e., the pre- and post-instructional phases). Strategy use questionnaires were coded for one use of each strategy regardless of the number of times the participant mentioned the strategies of planning, monitoring and evaluation.

Tables 4.1 and 4.2 report the mean (M), the standard deviation (SD), and the minimum (Min) and (Max) scores for each of the L2 speaking variables investigated: Speech rate unpruned (SRU), Speech rate pruned (SRP), Complexity (Comp.), Accuracy, (Acc.) and Weighted Lexical Density (WLD). Table 4.3 presents the mean (M), the standard deviation (SD), and the minimum (Min) and (Max) scores for reported strategy use in the pre- and post-instructional phases of the study for both experimental and control groups.

Table 4.1
Descriptive Statistics for L2 Speech Production Scores in the Pre-Instructional Phase

Group		SRU	SRP	Comp.	Acc.	WLD
Experimental	Min	29.14	28.20	.00	1.72	42.85
	Max	82.72	81.50	3.14	38.70	78.57
	Mean	46.6182	44.1282	1.3827	23.6427	63.4364
	SD	15.7413	16.1271	1.2357	9.6295	10.7558
Control	Min	22.23	21.37	.00	3.29	47.05
	Max	92.45	89.99	4.10	47.16	74.19
	Mean	50.7373	48.8855	1.1718	23.9664	62.1309
	SD	22.9056	22.8237	1.5012	14.1571	7.9736
Total	Min	22.23	21.37	.00	1.72	42.85
	Max	92.45	89.99	4.10	47.16	78.57
	Mean	48.6777	46.5068	1.2773	23.8045	62.7836
	SD	19.2946	19.4380	1.3461	11.8162	9.2634

Table 4.2
Descriptive Statistics for L2 Speech Production Scores in the Post-Instructional Phase

Group		SRU	SRP	Comp.	Acc.	WLD
Experimental	Min	22.19	21.10	.00	1.48	58.97
	Max	96.02	92.93	4.52	29.47	76.66
	Mean	46.1209	44.4573	2.1109	16.1827	66.2036
	SD	20.4309	20.1307	1.4671	9.0370	5.5366
Control	Min	29.98	25.09	.00	3.32	50.00
	Max	91.89	86.99	2.99	43.90	70.76
	Mean	52.4700	48.0327	1.2700	22.6618	61.1455
	SD	20.3631	21.5746	1.1938	12.3461	6.3771
Total	Min	22.19	21.10	.00	1.48	50.00
	Max	96.02	92.93	4.52	43.90	76.66
B	Mean	49.2955	46.2450	1.6905	19.4223	63.6745
	SD	20.1689	20.4443	1.3743	11.0665	6.3768

Table 4.3
Descriptive Statistics for Reported Strategv Use in Pre- and Post-Instructional Phases

Group		Strategies Pre-	Strategies Post-
Experimental	Min	0	2
	Max	2	3
	Sum	12	30
	Mean	1.09	2.73
	SD	.83	.47
Control	Min	0	0
	Max	2	2
	Sum	11	10
	Mean	1.00	.91
	SD	.77	.54
Total	Min	0	0
	Max	2	3
	Sum	23	40
	Mean	1.05	1.82
	SD	.79	1.05

As can be observed from Table 4.1 in the pre-instructional phase of the study, the experimental group had a mean of 46.61 concerning speech rate unpruned, which is smaller than the mean of 50.73 obtained by the control group in the same speaking dimension. As regards speech rate pruned, the mean of 44.12 presented by the experimental group, was again smaller than the mean of 48.88 displayed by the control group. However, in relation to the means of complexity, accuracy and weighted lexical density, the experimental and control groups presented rather similar mean scores. In this sense, in terms of complexity, the experimental group had a mean of 1.38, which is rather close to the mean of 1.17 attained by the control group. Concerning accuracy the mean of 23.64, presented by the experimental group, is again rather proximal to the mean of 23.96 shown by the control group. In a similar fashion, for weighted lexical density, the mean of 63.43 scored by the experimental group is slightly higher than the mean of 62.13 obtained by the control group.

Taken together, the mean scores from the descriptive statistics performed for pre-instructional performance (Table 4.1) seem to suggest that the experimental and control groups presented rather similar scores in terms of accuracy, complexity and weighted lexical density. Nevertheless, concerning the mean of speech rate pruned and unpruned, the control group had slightly superior scores than the experimental group.

Table 4.2 shows that, in post-instructional performance, the experimental group had a mean of 46.12 as regards speech rate unpruned, which was inferior to the mean of 52.47 presented by the control group. In relation to speech rate pruned, the mean of 44.45 scored by the experimental group was again lower than the mean of 48.03 depicted by the control group. In terms of complexity, the mean of the experimental group was 2.11, which was slightly superior to the mean of 1.27 registered by the control group. Concerning accuracy, while the mean of the experimental was 16.18

errors per hundred words, the control group reached a mean of 22.66 errors per hundred words. Finally, for weighted lexical density the mean of 66.20, obtained by the experimental group, was higher than the mean of 61.14 produced by the control group. Taken together, the mean scores from the descriptive statistical analysis performed for the post-instructional phase of the study (Table 4.2) appear to indicate that, while the experimental group scored slightly higher than the control group, in terms of complexity and weighted lexical density, the control group presented a somewhat higher score as regards accuracy[12] as well as speech rate pruned and unpruned.

A visual inspection of Tables 4.1 and 4.2 altogether indicate that the means of both measures of fluency (i.e., speech rate unpruned and speech rate pruned) yielded a lower variation between the pre- and post-instructional phases of the study, in both experimental and control groups. Tables 4.1 and 4.2 also show that in the experimental group the means of complexity, accuracy and weighted lexical showed improved performance between the two phases of the study. The control group, however, exhibited a smaller variation as regards the means of complexity, accuracy and weighted lexical density between the pre- and post- instructional phases of the study.

As can be observed in table 4.3, the means of reported strategy use were rather similar for experimental and control groups in the pre-instructional phase of the study. In this sense, the mean of 1.09 scored by the experimental was rather close to the mean of 1.00 provided by the control group. In the post-instructional phase, however, the mean of 2.73 displayed by the experimental group was higher than the mean of 0.91 presented by the control group. Therefore, a comparison between both phases of the study indicates that, while the experimental group reported a higher number of

[12] It is important to highlight that, as accuracy was measured according to the number of errors produced per 100 words, a higher score in terms of accuracy refers to a greater number of errors. Conversely, lower scores on the basis of accuracy demonstrate a smaller number of errors per hundred words.

strategies in the post-instructional phase, the control group reported a smaller number of strategies in the same phase of the study.

Tables 4.4 and 4.5 display (1) participants' individual scores on all variables of L2 speech production in the pre- and post-instructional phases of the study, as well as (2) the number of strategies reported by participants in experimental and control groups.

Table 4.4

Experimental Group: Participants' (Part) scores on Speech Rate Unpruned (SRU), Speech Rate Pruned (SRP), Complexity (Comp.), Accuracy (Acc.), Weighted Lexical Density (WLD), and Reported Strategy Use (Strat.) in the pre- and post-instructional phases of the study.

	Pre-Instructional Phase						Post-Instructional Phase					
Part.	**SRU**	**SRP**	**Comp.**	**Acc.**	**WLD**	**Strat.**	**SRU**	**SRP**	**Comp**	**Acc.**	**WLD**	**Strat.**
1	29.14	28.20	0	38.70	51.72	1	34.40	31.86	0.81	26.22	58.97	3
2	48.49	45.50	2.20	23.34	67.39	1	52.43	51.76	3.16	14.55	64.55	2
3	54.82	52.15	1.21	21.95	51.85	2	45.90	44.39	3.27	14.75	61.40	3
4	48.88	47.72	3.14	19.68	67.85	0	55.05	54.82	2.95	8.01	73.22	3
5	34.21	30.79	0	20.00	75.67	1	22.19	21.10	1.63	22.1	70.55	3
6	33.52	31.10	2.40	17.46	69.13	2	61.39	58.38	4.52	8.30	65.47	3
7	31.74	29.73	0	32.91	61.53	0	27.35	24.05	0	26.37	63.04	2
8	60.70	59.98	2.38	29.76	64.58	1	32.68	32.68	3.09	17.52	69.09	3
9	82.72	81.50	2.71	1.72	78.57	2	96.02	92.93	2.48	1.48	76.67	3
10	39.98	36.22	1.17	27.05	42.85	0	42.47	41.58	0	29.47	64.40	2
11	48.60	42.52	0	27.50	66.66	2	37.45	35.48	1.31	9.21	60.86	3

N = 11

Table 4.5

Control group: Participants' (Part.) scores on Speech Rate Unpruned (SRU), Speech Rate Pruned (SRP), Complexity (Comp.), Accuracy (Acc), Weighted Lexical Density (WLD) and Reported Strategy Use (Strat.) in the pre- and post-instructional phases of the study.

	Pre-Instructional Phase						Post-Instructional Phase					
Part.	**SRU**	**SRP**	**Comp.**	**Acc.**	**WLD**	**Strat.**	**SRU**	**SRP**	**Comp**	**Acc.**	**WLD**	**Strat.**
12	29.15	28.30	0	44.11	47.05	1	45.32	45.32	0	43.90	62.16	1
13	23.41	21.37	0	26.08	51.72	1	55.66	52.95	0	31.70	56.25	1
14	22.23	22.23	3.70	11.11	74.19	0	35.29	29.72	1.75	19.28	67.50	1
15	79.22	78.42	1.51	3.29	66.84	2	83.87	83.87	2.99	3.32	70.76	2
16	92.45	89.99	0	8.00	58.33	1	91.89	86.99	1.31	5.26	54.83	0
17	75.25	74.04	1.61	20.96	61.22	2	42.46	38.82	2.85	20.00	66.19	1
18	48.87	47.15	0.58	31.57	63.33	0	58.99	54.11	0	24.81	54.56	1
19	45.01	42.51	0	33.33	70.73	1	29.98	28.72	0	26.59	62.16	0
20	46.72	41.82	1.39	17.48	64.91	2	60.00	55.10	1.02	16.32	64.81	1
21	48.45	48.45	0	47.16	66.66	1	42.21	25.09	2.70	37.83	63.15	1
22	47.35	43.46	4.10	20.54	58.46	0	31.50	27.67	1.35	20.27	50.00	1

N = 11

Concerning the number of reported strategies used, Tables 4.4 and 4.5 demonstrate that the participants of experimental and control groups presented a rather similar pattern of reported strategy use in the pre-instructional phase of the study.

Nevertheless, a distinct picture emerged in the post-instructional phase. That is, while all participants in the experimental group (Table 4.4) reported a higher number of strategies between pre- and post-instructional phases, the participants of the control group (Table 4.5) demonstrated a tendency either to maintain the same number of strategies reported in the pre-instructional phase of the study (participants 12, 13, 15, and 21) or to report a smaller number of strategies (participants 16, 17, 19, and 20) in the post-instructional phase. The remaining three participants (participants 14, 18 and 22) reported using one additional strategy in the post-instructional phase.

As regards the individual scores of the experimental group on accuracy, complexity and weighted lexical density, Table 4.4 indicates an apparent tendency for accuracy, complexity, and weighted lexical density to increase between the pre- and post-phases of the study (that is, lower number of errors, production of more dependent clauses and higher percentage of weighted lexical items over the total number of linguistic items produced). Moreover, Table 4.4 shows that, among the 11 participants in the experimental group, participant 6 had the greatest improvements in terms of fluency (i.e., speech rate pruned and unpruned), accuracy, and complexity. However, participant 6 showed a slight decrease on the production of weighted lexically dense language in the post-instructional phase of the study. Concerning the production of more accurate language, Table 4.4 also indicates that, unlike the majority of participants in the experimental group, participants 5 and 10 did not improve the production of more accurate language in post-instructional performance.

Furthermore, Table 4.4 demonstrates that, comparing pre- and post-instructional phases, individual scores on speech rate pruned and speech rate unpruned did not maintain the same pattern for all participants in the experimental group. In this sense, improvements in speech rate pruned and unpruned were verified for participants 1, 2, 4,

6, 9, and 10. On the other hand, participants 3, 5, 7, 8 and 11 decreased the production of speech rate pruned and unpruned in the post- instructional phase of the study.

The individual scores of participants in the control group, displayed in Table 4.5, show that, similarly to the experimental group, 6 participants (participants 12, 13, 14, 15, 18 e 20) had improvements in terms of speech rate pruned and unpruned. However, 5 participants (participants 16, 17, 19, 21, 22) did not present gains concerning speech rate pruned and unpruned in the post-instructional phase. Table 4.5 also exhibits a variation across all participants in terms of accuracy, complexity and weighted lexical density. Despite variations, most participants in the control group demonstrated an apparent inclination either to maintain the same performance in both phases of the study, or to decrease the production of more accurate, more complex, or more weighted lexically dense language between pre- and post-instructional phases.

Taken together, the results from the descriptive statistical analysis employed for the measures of L2 speech production indicate that the participants of experimental and control groups presented a slightly distinct pattern as regards the production of speech rate pruned and unpruned in the pre- and post-instructional phases. In this sense, while the experimental group displayed a slight decrease on the production of speech rate unpruned in the post- instructional phase, the control group exhibited a rather small increase of speech rate unpruned in the same phase. Conversely, while the experimental group showed a rather slight increase on the production of speech rate pruned in the post-instructional phase of the study, the control group presented a rather small decrease on the production of speech rate pruned in the same phase.

Furthermore, experimental and control groups exhibited differences between pre- and post-instructional phases, as regards the production of more accurate, more complex and more weighted lexically dense language. In general, the participants of the

experimental group showed a considerable decrease in the number of errors and an increase in the number of dependent clauses as well as in the percentage of weighted lexical items over the total number of linguistic items produced. On the other hand, in the post-instructional phase, most participants in the control group demonstrated rather few improvements in terms of accuracy and complexity, and a slight decrease on the percentage of weighted lexical items over the total number of linguistic items produced.

Finally, in the experimental group, an evident increase in accuracy, complexity and weighted lexical density seems to be accompanied by a slight increase of speech rate pruned and by a rather small decrease of speech rate unpruned - when comparing the pre- and post-instructional phases. Nonetheless, in the control group, a rather slight increase of speech rate unpruned, accuracy, and complexity appears to be associated to a slight decrease in the production of speech rate pruned and weighted lexically dense language. Having briefly reported the results of the descriptive statistics analysis and participants' individual scores, I shall now present the results from additional statistical procedures in order to further analyze data from experimental and control groups.

4.2 Statistical Procedures

This section presents the results from three statistical treatments adopted, namely (i) Independent Samples t- tests, (ii) Pearson's Correlational Analysis between pre- and post-instructional phases of the study, and (iii) the General Linear Model (GLM) repeated measures. As already explained in section 3.6.1.2 of the method, these statistical procedures were employed in order to analyze performance of the experimental and control groups during the pre- and post-instructional phases of the study. In general terms, Independent Samples t-tests verified consistency in performance (between both groups) during the phase prior to strategy instruction.

Pearson's correlational analyses, in turn, were employed to compare performance between pre- and post-instructional phases and thus determine (1) the most suitable statistical treatment to verify possible differences in participants' performance, and (2) to provide the correlation coefficients of participants' performance, in each of the investigated measures, between the pre- and post-phases of the study. Finally, the GLM repeated measures established whether gains or losses were different for experimental and control groups and whether differences between pre- and post-instructional performance were attributed to individual factors (within subjects), experimental factors (between subjects), or to the interaction between individual and experimental factors. The results of each of these statistical procedures will be presented separately in the next subsections.

4.2.1 Independent Samples t-tests

Statistical analysis of pre-instructional data through the employment of Independent Samples t-tests were applied to each of the L2 speaking measures under investigation as well as reported strategy use. Therefore, at the level of fluency, measured by speech rate unpruned, the difference between the mean of the experimental group (46.61) and the control group (50.73) are not statistically significant (t_{20}= -0.492; p= 0.628) in the pre-instructional phase. As regards the production of speech rate pruned, the mean performance of the experimental group (44.12) and the control group (48.88) resulted in statistically non-significant differences between experimental and control groups for the pre-instructional phase of the study (t_{20}= 0.565; p= 0.579). These results can be taken as evidence that the two groups were homogeneous in terms of speech rate pruned and unpruned in the pre-instructional phase of study.

In relation to the L2 speaking dimension of complexity, the mean performance of the experimental group (1.38) and the control group (1.17) resulted in statistically non-significant differences between experimental and control groups in the pre-instructional phase of the study (t_{20}= 0.360; p= 0.723). In terms of accuracy, the mean of the experimental group (23.64) and the mean of the control group (23.96) resulted in statistically non-significant differences between both groups (t_{20}=0.63; and p= 0.951). By the same token, concerning the L2 speaking dimension of weighted lexical density the mean of the experimental group (63.43) and the control group (62.13) resulted in statistically non-significant differences between both groups (t_{20}= 0.323 and p= 0.750). Finally, in relation to reported strategy use the mean of the experimental group (1.09) and the control group (1.00) also resulted in statistically non-significant differences between experimental and control groups (t_{20}=0.265 and p= 0.793) in the pre-instructional phase of the study. Together, these results can be interpreted as evidence that both groups (i.e., experimental and control) were homogeneous in terms of complexity, accuracy, weighted lexical density and reported strategy use during the pre-instructional phase of the present study.

Therefore, the results of Independent Samples t-tests are important because they provide evidence that, in the pre-instructional phase of the study, both the experimental and control groups attained a consistency in performance as regards reported strategy use as well as in each of the L2 speaking measures under investigation. In other words, the two groups were similar in terms of L2 speech performance and reported strategy use in the pre-instructional phase of the study. Having briefly reported the results for the phase prior to strategy instruction, I shall now present the results from Pearson's correlational analysis between the pre- and post-instructional phases of the study.

4.2.2 Pearson's correlational analysis

Prior to establishing the factors that influenced all participants' L2 speech performance from pre- to post-instructional phases, a Pearson's correlational analysis of both phases was processed through corresponding scatterplots (see appendix T for the scatterplots of each of the L2 speaking measures under investigation). It is worthwhile noting that the Pearson's correlational analysis determined whether pre-instructional performance (for both the experimental and control groups), in each of the measures investigated, correlated significantly with performance in the same measure in the post-instructional phase of the study. Therefore, Table 4.6 summarizes the Pearson's correlation coefficients of all participants' performance for each of the L2 speaking measures investigated and for reported strategy use in the pre- and post-instructional phases.

Table 4.6

Correlation coefficients of participants' performance between the pre- and post- instructional phases

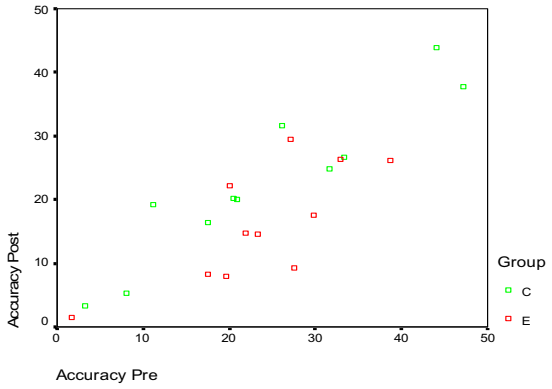
	R	p (sig. 1-tailed)
Fluency Pre-unpruned - Fluency Post-unpruned	0.661	0.000
Fluency Pre-pruned – Fluency Post-pruned	0.653	0.000
Complexity Pre – Complexity Post	0.518	0.007
Accuracy Pre – Accuracy Post	0.837	0.000
Lexical density Pre - Lexical density Post	0.545	0.004
Strategies Pre - Strategies Post	0.241	0.140

In relation to the L2 speaking dimension of fluency at the level of unpruned speech rate, Table 4.6 shows that there exists a significant correlation between the participants' performance in the pre- and post-instructional phases of the study ($r = 0.0661$; $p = 0.000$). Similarly, a significant correlation between pre- and post-instructional performance is attained for fluency measured by the production of speech rate pruned ($r = 0.653$; $p = 0.000$). As regards complexity, there is also a significant consistency in participants' performance ($r = 0.518$; $p = 0.007$) between both phases of the study. Considering accuracy, Table 4.6 shows that there is a significant correlation

between participants' pre- and post- instructional performance (r = 0.0837; p = 0.000). As for weighted lexical density, Pearson's correlational coefficients obtained for participants in the pre- and post-instructional phases show a significant pattern of performance between both phases of the study (r = 0.545; p = 0.004). However, in terms of reported strategy use table 4.6 displays a non-significant correlation of participants' performance between pre- and post-instructional phases (r = 0.241; p = 0.140).

As observed in table 4.6, for all measures of L2 speech production under investigation there is a linear and thus significant correlation of participants' performance between the pre- and post-instructional phases in the study. For the sake of illustration, I shall present the scatterplot of accuracy, which shows a significant correlation of participants' performance between the pre- and post-instructional phases (figure 4.1).

Figure 4.1 Participants' scatterplot on accuracy in pre- and post-instructional phases



C= Control Group
E= Experimental Group

In order to better understand the scatterplot above it is important to note that while green dots refer to the performance of the participants in the control group, the red dots represent the performance of the participants in the experimental group. As can be visualized in the scatterplot above, there exists considerable consistency in participants'

performance, in terms of accuracy, between the pre- and post-instructional phases of the study. Moreover, the significant correlation on participants' performance (in both the experimental and control groups) provides empirical evidence that the speakers' performance remained consistent across the pre- and post-instructional phases of the study. This consistency is important because a significant stability in comparisons of performance confirms that the participants were similar in terms of speaker performance at a given time and across similar task types (Bygate, 2001b, p.34).

Nevertheless, the statistically non-significant correlation for reported strategy use, between the pre- and post-instructional phases, can be seen as an indication that that the number of strategies reported by the participants of the experimental and control groups is not associated with individual factors. In other words, the lack of a significant correlation regarding participants' performance, between the pre- and post- instructional phases, seems to suggest an association between the experimental factor of strategy instruction and an increase in reported strategy use. This means that, as all the participants in the experimental group reported more strategies in the post-instructional phase of the study, this greater reported strategy use is related with the experimental factor (i.e., strategy instruction).

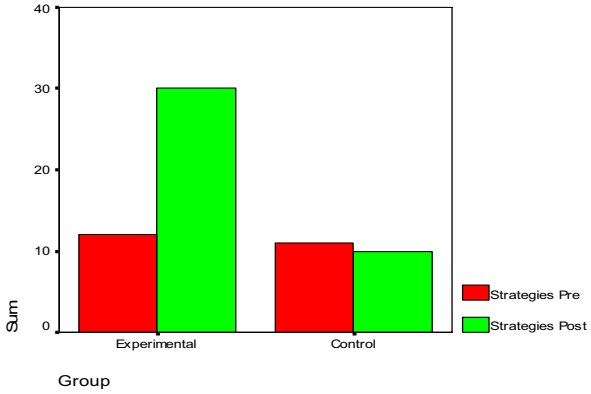
Due to the fact that the 22 participants' performance, as regards reported strategy use, was influenced by distinct experimental conditions (i.e., strategy instruction or lack of strategy instruction), the most suitable statistical procedure to assess gains or losses between pre- and post-instructional trials is the GLM Repeated Measures. Thus, the results of this latter statistical treatment will be further detailed in the next subsection.

4.2.3 General linear model (GLM) repeated measures

As previously explained, the General Linear Model Repeated Measures can identify the influence of experimental factors, individual factors (the participants) or a combination of individual and experimental factors on participants' performance. However, due to the lack of a significant correlation, between the pre- and post-instructional phases concerning the number of strategies reported by all participants, a treatment to reported strategy use will be given prior to describing the results of GLM Repeated Measures.

Bearing in mind the need to carefully scrutinize reported strategy use, a closer analysis of participants' individual scores on reported strategy use (Tables 4.4 and 4.5) is again required. In this sense, in the pre-instructional phase of the study a total number of 23 strategies[13] were reported (12 strategies reported by the experimental group and 11 strategies by the control group). As for the post-instructional phase of the study, a total number of 40 strategies were reported for experimental and control groups (30 strategies reported by the experimental group and 10 strategies reported by the control group). The total number of reported strategies used, in the pre- and post-instructional phases, can be visualized in Figure 4.2.

Figure 4.2 Total number of Reported Strategy Use for Experimental and Control Groups in the Pre- and Post-Instructional Phases.



[13] As already explained in section 3.6.2 of the method, students were given one point when each of the three strategies taught (i.e., planning, monitoring and evaluation) was identified.

As can be seen in Figure 4.2, a comparison between reported strategy use in both phases of the study shows that the experimental group reported a higher number of strategies (30 strategies) in the post-instructional phase of the study. The control group, on the other hand, reported a lower number of strategies (10 strategies) in the post-instructional phase. Thus, an increase on reported strategy use is exclusively associated with the participants in the experimental group.

It is worthwhile highlighting that the number of strategies reported by participants in both experimental and control groups, from pre- to post-instructional phases, varies from one point decrease in reported strategy use (i.e. those participants who reported 2 strategies in the pre-instructional phase and 1 in the post instructional) to 3 points increase in the post-instructional phase. These variations on reported strategy use, between the pre- and post- instructional phases were already demonstrated in Tables 4.4 and 4.5, which depict the reported strategy use of all participants in the present study. A summary of the total number of experimental and control participants, who reported more strategies or did not report more strategies in the post instructional phase, is shown in Table 4.7.

Table 4.7
Summary of participants' variations on reported strategy use in experimental and control groups

		Reported Stategy Use		
Group		Reported more Strategies	Did not report more strategies	Total
	Experimental	11		11
	Control	3	8	11
	Total	14	8	22

N=22

As can be seen in Table 4.7 all participants in the experimental group increased reported strategy use in the post-instructional phase of the study. Therefore, an increase in the total number of reported strategies is associated with the experimental factor, that is, the instructional phase of the study. However, this association cannot be considered

entirely linear since 3 participants in the control group (participants 14, 18, 22) increased reported strategy use, while the other 8 participants in the control group did not report more strategies in the post-instructional phase. These results must be taken into consideration when significant differences in participants' L2 speaking performance are found. In other words, differences in performance (between pre- and post-instructional phases) have to take into account the higher number of strategies reported by the experimental group. As already explained in section 4.2.2, the most appropriate statistical treatment to test simultaneously the effects of within subjects (individual factors), between subjects (experimental factors), or a combination of within and between factors on participants' performance, is the General Linear Model (GLM) repeated measures. Having briefly described the treatment given to reported strategy use, the results of the GLM repeated measures will be now presented.

In order to better understand the employment of GLM repeated measures, it is important to calculate the differences between pre- and post-instructional performance in each of the investigated measures. Hence, Table 4.8 depicts these differences for all participants in experimental and control groups.

Table 4.8

Differences in Participants' Performance Between the Pre- and Post-Instructional Phases for each of the Measures Under Investigation

			SRU	SRP	Complexity	Accuracy	WLD
Group	Participant	Strategies	Post-pre	Post-pre	Post-pre	Post-pre	Post-pre
EXPERIMENTAL	1 E	Increased	5.26	3.66	0.81	-12.48	7.25
	2 E	Increased	3.94	6.26	0.96	-8.79	-2.84
	3 E	Increased	-8.92	-7.76	2.06	-7.2	9.55
	4 E	Increased	6.17	7.1	-0.19	-11.67	5.37
	5 E	Increased	-12.02	-9.69	1.63	2.13	-5.09
	6 E	Increased	27.87	27.28	2.12	-9.16	-3.66
	7 E	Increased	-4.39	-5.68	0	-6.54	1.51
	8 E	Increased	-28.02	-27.3	0.71	-12.24	4.51
	9 E	Increased	13.3	11.43	-0.23	-0.24	-1.91
	10 E	Increased	2.49	5.36	-1.17	2.42	21.55
	11 E	Increased	-11.15	-7.04	1.31	-18.29	-5.8
CONTROL	12 C	Did not increase	16.17	17.02	0	-0.21	15.11
	13 C	Did not increase	32.25	31.58	0	5.62	4.53
	14 C	Increased	13.06	7.49	-1.95	8.17	-6.69
	15 C	Did not increase	4.65	5.45	1.48	0.03	3.92
	16 C	Did not increase	-0.56	-3	1.31	-2.74	-3.5
	17 C	Did not increase	-32.79	-35.22	1.24	-0.96	4.97
	18 C	Increased	10.12	6.96	-0.58	-6.76	-8.57
	19 C	Did not increase	-15.03	-13.79	0	-6.74	-8.54
	20 C	Did not increase	13.28	13.28	-0.37	-1.16	-0.1
	21 C	Did not increase	-6.24	-23.36	2.7	-9.33	-3.51
	22 C	Increased	-15.85	-15.79	-2.75	-0.27	-8.46

N=22 *Note.* E= Experimental Group SRU= Speech rate unpruned
WLD= Weighted Lexical Density C= Control Group SP= Speech rate pruned

As can be observed in Table 4.8, the differences between pre- and post-instructional performance were calculated for each of the L2 speaking measures under scrutiny. Therefore, positive values in the L2 speaking dimensions of fluency (i.e., speech rate pruned and unpruned), complexity, and weighted lexical density indicate that the participant improved his/her performance from the pre- to the post-instructional phase of the study. Negative values for the measures of speech rate pruned and unpruned, complexity and weighted lexical density demonstrate that there were no gains in the participant's performance between the pre- and post-instructional phases. It is important to note that, in relation to the L2 speaking dimension of accuracy, a negative value refers to improved performance (i.e., the participant produced fewer errors from the pre- to the post-instructional phases). Positive values, in terms of accuracy,

represent lack of improvement in participant's performance (i.e., more errors were produced from the pre- to the post-instructional phases of the study). As regards reported strategy use, Table 4.8 portrays the information of the experimental factor (i.e., experimental or control) and also the information as regards the variable indicating whether the participant increased or did not increase reported strategy use.

For the purposes of the present study, 5 GLMs Repeated Measures were performed, that is to say, one GLM statistical procedure for each measure of L2 speech production investigated. The GLM repeated measures can provide an analysis of variance to the same measures (i.e. speech rate pruned, speech rate unpruned, complexity, accuracy, or weighted lexical density) in the performance of participants in the pre- and post-instructional phases. The analysis of variance can thus determine the influence of individual factors (within subjects), experimental factors (between subjects) or the interaction between the latter and the former factors in each of the measures of L2 speech production investigated. For this reason, the variable informing whether the participant improved or did not improve reported strategy use (between pre- and post-instructional performance) will be used so as to control the experimental factor. This control will be performed in order to take into consideration that (1) an increase on reported strategy use is associated with all participants in the experimental group, and (2) this association is not entirely linear since 3 participants in the control group also reported more strategies in the post-instructional phase.

It is worthwhile reinforcing that the analysis of variance through GLM repeated measures provides the grounds to determine (1) whether gains or losses (between both phases of the study) are different for experimental and control groups, and (2) the factors that influenced participants' L2 speaking performance. As previously explained, the differences between pre- and post-trials can be attributed to the within subjects

factor (i.e., the participants' performance) or they can be related to the classification of participants in experimental or control groups (i.e., between subjects factor). In this case, the different treatments given to experimental or control groups can determine the influence of the between subjects factor on L2 speaking performance. Finally, within and between factors can interact with each other when the differences between pre- and post-test performance present variations according to different experimental conditions (i.e., there were gains in the performance of all participants but one group performed better than the other). Table 4.9 depicts the mean of differences, between pre- and post-instructional performance, for all participants in experimental and control groups.

Table 4.9

Mean Differences between Pre- and Post-Instructional Performance for Experimental and Control Groups in Each of the L2 Speaking Measures Investigated

	Experimental		**Control**		**Total**	
	Mean	N	Mean	N	Mean	N
Fluency-unpruned (Post-Pre)	-0.4973	11	1.7327	11	0.6177	22
Fluency-pruned (Post-Pre)	0.3291	11	-0.8527	11	-0.2618	22
Complexity(Post-Pre)	0.7282	11	0.09818	11	0.4132	22
Accuracy (Post-Pre)	-7.4600	11	-1.3045	11	-4.3823	22
Weighted lexical density (Post-Pre)	2.7673	11	-0.9855	11	0.8909	22

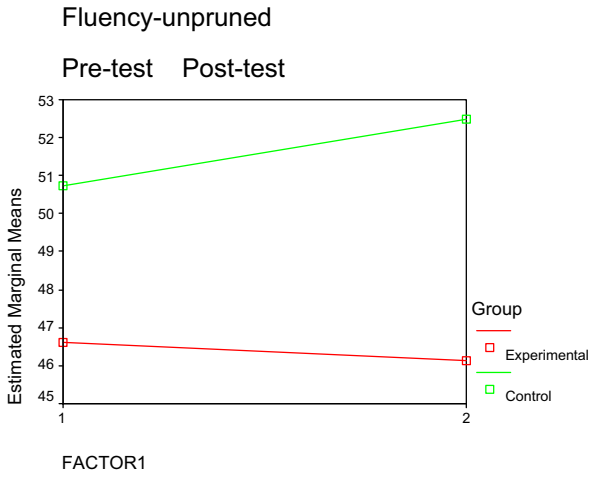
N=22

As regards fluency, measured by the number of unpruned words produced per minute, the GLM repeated measures resulted in non-significant differences between pre-and post-instructional performance for both the experimental and control groups. Therefore, these results indicate that the variations in performance (for experimental and control groups), between pre- and post-instructional phases, are neither explained by individual factors (within subjects) nor by experimental factors (between subjects). As can be verified in table 4.9 the mean of differences in speech rate unpruned, between pre- and post- instructional phases, was 0.6177.

In order to visualize the results of GLM statistical procedures, profile plots of each of the L2 speech production measures will be presented. Therefore, the following

profile plot (Figure 4.3) depicts the performance of experimental and control groups, in both phases of the study, as regards fluency measured by speech rate unpruned.

Figure 4.3 Profile plot of speech rate unpruned



As can be seen in the profile plot above, the red line represents the performance of the experimental group. The green line, in turn, stands for the performance of the participants in the control group. As profile plots can join simultaneously the estimated marginal mean of participants' performance in first and second trials (i.e., pre- and post-instructional phases), it is important to explain how to interpret the results captured by profile plots. In this sense, parallel lines in profile plots indicate that there were no differences in performance between pre and post trials. Conversely, slanted lines can demonstrate that significant differences were verified between both trials. Therefore, in the profile plots presented in this study, the more slanted the line is, the greater the differences between pre-and post-instructional performance are.

The profile plot shown in Figure 4.3 demonstrates that the control group presented a slightly better performance than the experimental group, from pre- to post-instructional performance, in terms of speech rate unpruned. The experimental group, on the other hand, displayed a slight loss in the production of speech rate unpruned between pre- and post-instructional phases. A possible explanation for this fact is that,

during post-instructional performance the participants of the control group tended to finish their narratives abruptly, as if they were willing to get rid of the video-narrative task. The participants of the experimental group, in turn, tended to retell their narratives in greater detail as a token that they were focused on narrating the main events of the story. These distinct approaches to story retelling can be seen in the following examples of post-instructional performance:

(1) Participant 13 - Well Tom and Jerry Tom ✓ in love **for** ✓ little cat and he gave he gave Jerry **for**✓ present to ✓ cat but eh (.) she loved **for** mouse (..) and **to** suddenly ✓ **start** to wear to **finish** the little cat to **loved for** mouse Ok (control group – 55.66 unpruned words per minute).

(2) Participant 8 - Tom knew a cat Tom **give** a present for **she** Tom **give** Jerry the cat loved Jerry and Jerry loved the cat Tom doesn't like it (.) Tom loved the cat too (.) Tom dressed **a** clothes (..) to **conquest** the cat but Jerry **went** who **conquest** the cat because the clothes ***shirinked*** Tom doesn't like it the cat was very beautiful so Tom loved the cat (..) uh (.) the cat is nice is very beautiful is (..) intelligent so Tom played the guitar for **she** Tom sang for **she** Tom **give** presents to **she** but **in** the **finish** Jerry **when** who **conquest she** (experimental group – 32.68 unpruned words per minute).

Upon analyzing the pre- and post-instructional speech samples of all participants, the panorama that emerges is that the distinct approaches adopted by experimental and control groups when narrating their stories may have produced an effect on students' fluent performance (as measured by speech rate unpruned). Moreover, as there exists a competition among the goals of fluency, complexity and accuracy on the production of L2 speech (Foster & Skehan, 1996; Skehan, 1998), the students in the experimental group may have penalized fluency (as measured by speech rate unpruned) in order to focus their attentional resources in another aspect of L2 production. The students in the control group, on the other hand, may have allocated their attentional resources to fluency (i.e., speech rate unpruned) and thus sacrificed another dimension of L2 speaking.

Nevertheless, the GLM repeated measures demonstrated that differences in performance, between both phases, were considered statistically non-significant. Therefore, this result means that there were no overall gains, from pre- to post-

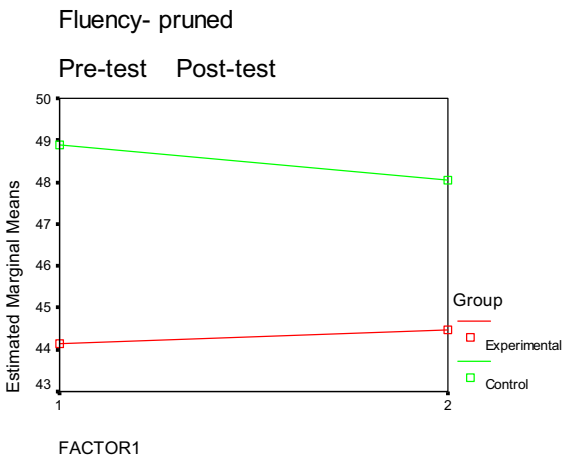
instructional phases, in terms of the production of speech rate unpruned for the participants of experimental and control groups.

These results might also indicate that the participants' lower level of L2 speaking proficiency (in both the experimental and control groups) may have contributed to the non-significant improvements in terms of speech rate unpruned. As suggested by Dörnyei and Kormos (1998) and Poulisse (1999), elementary L2 speakers, as is the case of the participants of this study, may encounter a series of lexical and grammatical obstacles in order to convert intentions into overt speech, and thus L2 speaking tends to be slower, more hesitant and thus less fluent than L1 speech. In addition, as L2 speakers at lower levels of proficiency have not yet developed automaticity in language production (Bygate 2001a; 2001b), it is likely that all the participants had difficulties in improving fluent performance, including those who received strategy instruction. Following this line of thought, these difficulties might be related to the participants' lack of automation of the major processes involved in L2 speech production, as well to their rather limited access to chunks of formulaic language in order to produce L2 speech (Bygate, 2001b).

As regards speech rate pruned, measured by the number of pruned words produced per minute, the GLM Repeated Measures showed no statistically significant differences, from pre- to post-instructional phases, for both the experimental and the control groups. Hence, the lack of statistical differences between pre- and post-instructional performance can neither be related to within factors (individual factors), nor to between factors (experimental factors). As displayed in Table 4.9, the mean differences of speech rate pruned between the pre- and post-instructional phases, for both the experimental and control groups, was –0.2618. The next profile plot (Figure 4.4) depicts the results of the GLM procedures as regards experimental and control

group performance, in terms of speech rate pruned, in the pre- and post-instructional phases of the study.

Figure 4.4 Profile plot of speech rate pruned



As can be observed in the profile plot of speech rate pruned (Figure 4.4), while the experimental group had a rather slightly better performance in the post-instructional trial, the control group presented a small loss in the production of speech rate pruned in the same phase of the study. This result might be associated to the fact that, as the participants of the experimental group produced fewer repetitions in post-instructional performance, they slightly improved the production of speech rate pruned during this phase. The participants of the control group, however, tended to produce more repetitions and thus, there was a rather small decrease of speech rate pruned in post-instructional performance. The following passages provide examples of differences in terms of repetitions between the control and experimental groups:

(3) Participant 20 - Jerry also ✓ in in in ✓ house then then (.) they they **was** listening a song and they they **was** much noise much noise and Jerry who was nervous because uh there was much noise and Jerry uh didn't **sleeping** because ✓ this noise and he (.) he ✓ frightened with with **his** because uh because uh ✓ this this noise and the and the… (control group - 55.10 pruned words per minute).

(4) Participant 6 - The cartoon was about Tom and Jerry so Tom put Jerry in the box and Jerry was a present for a beautiful cat so Tom uh Tom gave uh the present **for** the cat in the box ✓was Jerry uh Tom danced too and sang but the cat the beautiful cat didn't like uh because uh he didn't like **the** Jerry and didn't like uh **the** Tom **to** dance didn't like uh (.) the beautiful cat didn't like to see Tom **danced** and **sang** so the beautiful cat had a fight with Tom uh Jerry …(experimental group – 58.38 pruned words per minute).

An analysis of post-instructional speech samples from both the experimental and control groups can thus suggest that, explicit strategy instruction encouraged the experimental group students to produce slightly fewer repetitions in post-instructional performance. The learners in the control group, in turn, produced somewhat more repetitions as an indication of their greater cognitive effort in order to convert intentions into overt speech (Levelt, 1989).

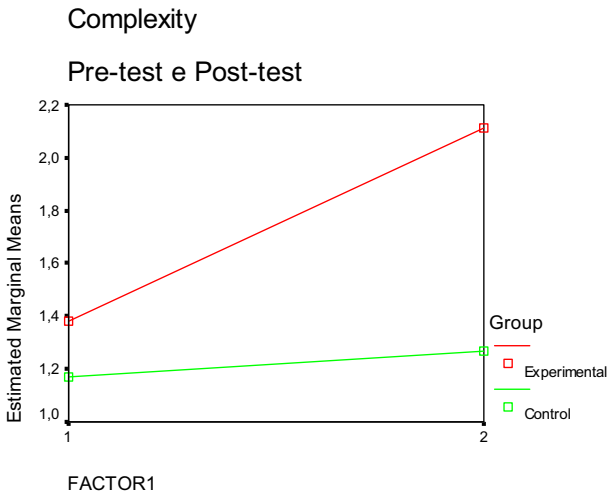
The absence of statistically significant differences between pre- and post-instructional performance, as regards the production of speech rate pruned, provide additional evidence that the participants' lower level of speaking proficiency may have refrained learners (in both groups) from producing more fluent language between both phases of the study. The lack of improvements in speech rate pruned (from pre- to post-instructional performance) may also reinforce the fact that, while L1 production is largely automatic (Levelt, 1989), L2 speech production demands more attentional resources than speech processing in L1 (Dörnyei and Kormos, 1998), and thus L2 learners may encounter a series of difficulties (Bygate, 2001a; Bygate 2001b) in order to produce more fluent language. Moreover, a lack of fluency may reflect the fact that all the participants in this study were unable to cope with the pressures of real time communication, either due to few opportunities for the proceduralization of L2 speech or because they had not yet developed a larger repertoire of chunks of language (Skehan, 1996).

In relation to the L2 speaking of complexity, measured by the number of subordinate sentences produced per 100 words, the GLM Repeated Measures demonstrated that, for the within subjects factor, there were no statistically significant differences between pre- and post-instructional performance ($F=1.248$; $p=0.2.78$). By the same token, there were non-statistically significant differences in performance for

the between subjects factor (F=0.048, p=0.829). Notwithstanding, the GLM statistical procedure verified that there were statistically significant differences as regards the interaction of experimental and individual factors (F=13.177; p= 0.002) from pre- to post-instructional performance. These results reveal that, in terms of complexity, there were gains for all participants, but these gains were different for experimental and control groups.

In fact, the mean of differences between pre- and post-instructional performance in the experimental group (0.7282) was statistically different than the mean of differences in the experimental group (0.09818). It can be argued, therefore, that differences in gains between experimental and control groups are related to the experimental condition of strategy instruction received exclusively by the experimental group. These differences in performance, between pre- and post-instructional phases, can be visualized in Figure 4.5, which depicts the profile plot of complexity.

Figure 4.5 Profile Plot of Complexity



As portrayed in the profile above, there are greater gains for the experimental group as regards the production of more complex language. These gains are represented by the slanted red line, which shows experimental group performance from pre- to post-

instructional phases. The control group, in turn, presented a rather slight increase, in terms of complexity, between pre- and post-instructional phases. These small gains are shown by the almost parallel green line, which depicts control group performance in both phases of the study. Therefore, it might be suggested that the slight improvements obtained by the control group might be related to the issues of task familiarity and task repetition in L2 speaking (Bygate, 2001b). That is, as all the participants were more familiar with the video-narrative task in the post-instructional phase of the study, this familiarity may have yielded an effect on both the control and experimental groups oral performance.

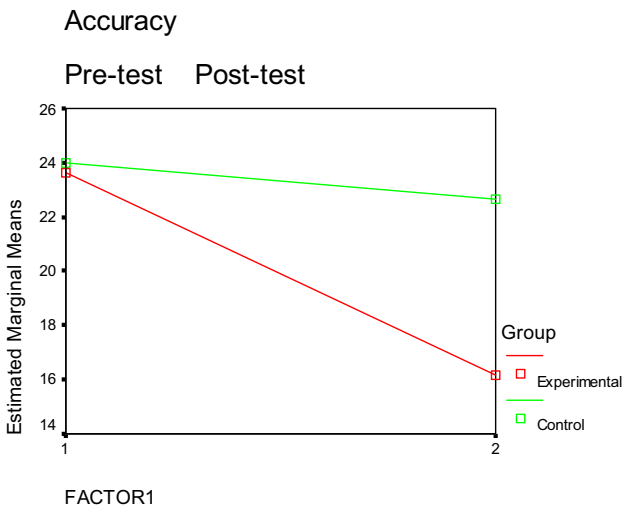
However, the fact that the experimental group presented greater improvements between pre- and post-instructional performance, along with the attained statistical significance for the interaction factor, can be taken as strong indicators that strategy instruction had a positive impact on the production of more complex language. Therefore, it appears safe to suggest that the L2 learners, who are taught to employ the strategies needed to approach distinct language tasks, perform better than those who are not (Weaver & Cohen, 1996).

In terms of accuracy, the results of the GLM Repeated Measures resulted in statistically significant differences for the within subjects factor ($F=7.841$; $p= 0.011$), and in statistically significant differences for interaction between individual and experimental factors ($F= 4.11$; $p= 0.05$). Notwithstanding, the results of GLM Repeated Measures resulted in statistically non-significant differences for the between subjects factor ($F=0.033$; $p=0.857$). Consequently, these results indicate that there were gains in the performance of all participants (i.e., the participants of experimental and control groups) since the mean difference between experimental and control groups' performance was -4.38. However, these gains had a different impact among the

participants of experimental and control groups. That is to say that, while in the experimental group the mean of differences between pre- and post-instructional performance was –7.46 (-7.46 errors produced per hundred words), in the control group the mean of differences between both first and second trials were –1.30 (-1.30 errors produced per hundred words). These mean of differences demonstrate that, although all the participants in the study produced fewer errors per hundred words during post-instructional performance, the experimental group registered a smaller number of errors (-7.46) than the control group (-1.30)

The results of GLM statistical procedures, for experimental and control groups, as regards accuracy can be visualized in the next profile plot (Figure 4.6).

Figure 4.6 *Profile Plot of Accuracy*



In order to better understand the profile plot above, it is necessary to underscore the fact that the L2 speaking dimension of accuracy was measured by the number of errors produced by 100 words. As a consequence, a visual analysis of figure 4.6 demonstrates that improved accurate performance is represented by an inverted slanted line. That is to say that, as opposed to the profile plots of fluency (i.e. speech rate pruned and unpruned) and complexity, the greater gains achieved by the experimental group are depicted in the profile plot through the production of fewer errors. Figure 4.6

shows that although both experimental and control groups improved L2 speaking in terms of accuracy, the experimental group attained statistically significant greater differences between pre- and post-instructional performance, than the control group. This means that, the gains attained by the experimental group were different than the gains obtained by the control group. Therefore, these results might be interpreted as an indication that specific strategy instruction does correlate with improved L2 performance (Chamot & Rubin, 1994).

In addition, the fact that all participants improved L2 speech performance in terms of accuracy, may suggest that task familiarity and task repetition (Bygate 2001b) produced an effect on learners' oral performance. In other words, as the participants performed the video-narrative task on a pre- and post-instructional basis, the familiarity with the task may have also contributed to improved accurate production in post-instructional performance. However, as the gains obtained by the control group (between pre- and post-instructional performance) were smaller than the improvements attained by the experimental group, it can be further argued that strategy instruction yielded a positive impact on the experimental group more accurate performance.

The results of the GLM measures on the L2 speaking measure of accuracy may also suggest an association between improved accuracy and the use of the strategy of monitoring. In other words, the fact that the participants of the experimental group were taught how to employ the strategy of monitoring to their L2 speaking performance might have impacted the production of more accurate language among the participants in the experimental group. Following this line of thought, it can be argued that the participants of the control group did not present greater improvements in terms of accuracy due to the lack of instruction on the use of the strategy of monitoring to their oral performance. Examples of the employment of the learning strategy of monitoring

can be seen in the following passages, which provide examples of the experimental group post-instructional performance:

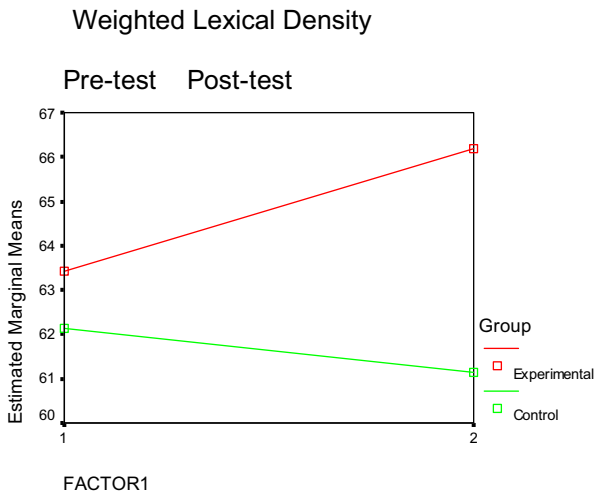
(5) Participant 4 - … and when Tom arrived there he gave the gif... the gift to her and he tried to call her attention but she doesn't she didn't like the (.) things that Tom made and she didn't like the gif… the gift that Tom gave to her … (experimental group).

(6) Participant 9 - … and uh Jerry put John in a window put Tom in a window and uh took his clothes and wore his clothes and To… Jerry was very charming was very beautiful oh no was very handsome yes was very handsome because he didn't like… (experimental group).

Finally, concerning the L2 speaking measure of weighted lexical density, the results of GLM repeated measures indicate that there were no statistically significant differences for the within subjects factor (F= 0.011; p= 0.917) and no statistically significant differences for the between subjects factor (F= 0.562; p=0.463). Nonetheless, the results of GLM repeated measures demonstrated that there were significant differences for the interaction factor (F= 4.964; p= 0.038). These results, thus, reveal that the distinct experimental conditions impacted performance from pre- to post-instructional phases.

The differences between the means of experimental (2.7673) and control groups (-0.9855), however, have determined greater gains for the experimental group in terms of weighted lexical density. Therefore, this result means that L2 strategy instruction impacted the performance of the experimental group. The following profile plot (Figure 4.7) provides a visual analysis of the GLM measures between pre- and post-instructional performance, for experimental and control groups, regarding weighted lexical density.

Figure 4.7 Profile Plot of Weighted Lexical Density



It is noteworthy outlining that weighted lexical density was measured by calculating the percentage of weighted lexical items over the total number of weighted linguistic items in each participant's speech sample. As can be seen in Figure 4.7, the red line portrays clearly defined gains for the experimental group, between pre- and post-instructional phases. For the control group, on the other hand, the profile plot depicted in Figure 4.7 demonstrates a slight loss in terms of the production of lexical items over the total number of linguistic items from pre- to post-instructional phases of the study.

These results provide an indication that L2 strategy instruction helped the participants of the experimental group to produce a higher number of weighted lexical items over the total number of weighted linguistic items. According to O'Loughlin, (1995) one of the factors that may influence the degree of lexical density on language output refers to the planning time provided prior to L2 speaking performance. Therefore, it appears safe to suggest that the effective use of the strategy of planning in post-instructional performance may have helped the participants of the experimental group to produce a higher degree of weighted lexical items over the total number of weighted linguistic items. Moreover, the improved post-instructional performance of the

experimental group may suggest that the L2 learners in this group developed a greater awareness of how, when and why strategies can be employed (Cohen, 1998) so as to effectively approach the task devised for the present study.

Finally, the losses of the control group in post-instructional performance, as opposed to the gains of the experimental group, may also serve as a foretoken that when learners are not encouraged to use distinct language learning strategies, they tend to use exclusively the strategies that reflect their basic learning styles (Oxford, 1996a, 1996b, 2001). Thus, it seems safe to argue that the teaching of language learning strategies helped the students in the experimental group to better cope with the demands and challenges encountered in the production of L2 speech (Bygate, 2001b).

Taken together, the results of the GLM repeated measures indicated that (1) in terms of fluency, measured by speech rate pruned and unpruned, there were no statistically significant differences between pre- and post-instructional performance, for experimental and control groups; (2) differences between pre- and post- instructional performance were attained for the L2 speaking dimensions of complexity, accuracy and weighted lexical density; (3) profile plots depicting GLM measures (in terms of accuracy, complexity and weighted lexical density) demonstrated greater gains for the experimental group as regards pre- and post-instructional performance; (4) the mean of differences between pre- and post-instructional performance in the experimental group were different than the mean of differences obtained by the control group; and, (5) the factors that influenced gains or losses between pre- and post-instructional performance were not straightforward for all the L2 speaking measures investigated. That is to say that, in terms of complexity and weighted lexical density, differences between pre- and post-instructional performance were determined by the interaction of within (individual) and between subjects (experimental) factors. As for accuracy, differences in

performance were influenced by within factors as well as the interaction of within and between factors.

The results of the GLM repeated measures, thus, indicated that although differences between pre- and post-instructional performance were not determined by the same factors, the improved performance of the experimental group is highly associated with the condition of strategy instruction. In other words, evidence from GLM procedures shows that strategy instruction helped the participants of the experimental group to obtain greater gains on the L2 speaking dimensions of complexity, accuracy and weighted lexical density since these gains were influenced either by the interaction of individual and experimental factors, or by the within subjects factor. Having briefly summarized the results of the General Linear Model (GLM) Repeated Measures, I now proceed by reporting the results of the qualitative analysis of data in the following subsection.

4.3 The Qualitative Analysis of Data

As results of statistical analysis indicate that strategy instruction produced an effect on the experimental group L2 oral performance, the analysis of data from a qualitative perspective examined whether students confirmed the strategies reported in their pre- and post-instructional questionnaires (i.e., questionnaires applied immediately after pre- and post-instructional performance). Therefore, learner diaries and the questionnaire evaluating the instructional classes were assessed through qualitative analysis. In what follows, I shall present the analysis of each of these instruments.

4.3.1 Learner diaries

The learner diaries, as discussed in chapter 3, prompted the participants in the experimental group to review what they had learned in each of the four instructional classes devised for this study. As a result, a set of 4 learner diaries per participant was gathered during the phase of strategy instruction. Although this instrument comprised 7 questions, I focused the analysis of the learner diaries on question 4 (*The strategies I learned and practiced were…)* due to the fact that it provided further validation of strategy learning and strategy use among the participants of the experimental group.

The analysis of the answers to question 4 reveals that the students learned and practiced the three metacognitive strategies selected for the present study. For instance, participants 4 and 6 stated on the first day of the instructional phase that:

Participant 4: I learned how the strategies of planning, monitoring and evaluation can help us improve speaking performance.
Participant 6: Planning what to say, correcting mistakes when speaking and evaluating.

The statements of participants 4 and 6 show that, in the first session of the instructional phase, students were able to describe that the strategies of planning monitoring, and evaluation could be applied to their L2 speaking performance. Furthermore, while participant 4 verbalized that the three strategies could help L2 learners to improve their L2 speech production, participant 6 provided further explanation for the strategy of planning by approaching it as 'p*lanning what to say'*. Participant 6 also defined the strategy of monitoring as *'correcting mistakes'* and the strategy of evaluation simply as '*evaluating'*.

Participants' ability to describe and detail the strategies taught improved as the instructional classes developed. For example, on the second instructional session, the following statements were provided:

Participant 5: I learned how to organize a story; how to retell a story and also to choose the verbal tense that I will use to tell the story. I learn to correct mistakes when speaking and use the strategy of evaluation to see what is correct and what isn't correct.

Participant 9: I practiced and learned to use monitoring to pay attention and to correct my speaking, to use planning to retell the story correctly and use evaluation to see how is my speaking and what can I do better.

As can be verified from the answers provided by participants 5 and 9, students provided practical accounts about the metacognitive strategies of planning, monitoring and evaluation. Participant 5, thus, referred to planning as a strategy *'to organize a story'*, *'to retell a story'*, or even to *'choose a verbal* tense'. Participant 9 highlighted the importance of planning in order to *'retell the story correctly'*. It is interesting to observe that both participants revealed that they had learned how to *'correct'* L2 speaking by using monitoring. Moreover, participant 9 also described monitoring as a strategy which requires the L2 speaker to *'pay attention'* to one's performance. Finally, while participant 5 approached evaluation as a strategy to verify *'what is correct and what isn't correct'*, participant 9 reinforced the fact that this strategy helps evaluating speaking in addition to determining which aspects of L2 speaking need improvement, or in the participant's own words: *'what I can do better'*.

Participants' greater familiarity with the metacognitive strategies of planning, monitoring and evaluation also allowed students to provide a larger repertoire of examples on how to apply these strategies to the story retelling task. On the third session of the instructional phase, the following statements were provided by participants 2 and 8:

Participant 2: Choose the most important parts of the story but don't write sentences: plan the verbs and adjectives before you speak. Never stop when you make a mistake: correct and continue to speak. You always need to see how you are speaking and what you need to be better.
Participant 8: I practiced to use time to organize better my speaking, to organize my ideas and make an outline. I practiced to pay attention and correct and always to evaluate what I say.

Concerning the third diary page, participant 2 referred to planning as a strategy that can be employed so as to *'choose the most important parts of the story'*. In addition, while participant 2 warned that L2 learners should not *'write sentences'* when

planning their productions, participant 8 suggested that planning can be used so as to *'organize'* ideas and L2 speech prior to speaking. Participant 8 regarded monitoring as a strategy that requires speakers to *'pay attention and correct'*. Participant 2 advised L2 speakers not to *'stop'* when making mistakes, to correct themselves and to *'continue'* speaking. Concerning the strategy of evaluation, participant 2 stressed the need to evaluate speaking in order to determine what should be improved, or in the participant's own words *'what you need to be better'*. For participant 8, it is important to *'always evaluate what*' is said.

In the fourth and final session of the instructional phase, the experimental group participants showed increased awareness of how the strategies of monitoring, planning and evaluation can be employed towards L2 speaking. Participants 7 and 11 suggested:

Participant 7: I learned to plan what to say before I speak, to monitor always monitor, and to evaluate to check if I'm better or if I need to be better.
Participant 11: Planning before I speak, monitor when I'm speaking and after evaluate my speaking.

On the last day of the instructional phase, participant 7 showed that she had learned and practiced to *'plan what to say'* before producing output. Moreover, this student demonstrated the importance of the strategy of monitoring by underlying the word monitoring and reiterating to *'monitor always monitor'* performance. As regards evaluation, participant 11 reinforce the need to *'check'* speaking and thus determine whether speech performance requires improvement. By means of summary, participant 11 indicated that while the strategy of planning is used *'before'* performance, monitoring is employed *'when'* speaking. Evaluation is thus applied *'after'* speaking.

The qualitative analysis of the learner diaries suggests that the experimental group participants confirmed the strategies reported in the post-instructional phase of the study. In other words, as most participants of the experimental group reported approximately 3 strategies in post-instructional performance, it appears safe to indicate

that the learner diaries confirm the strategies reported in the post-instructional questionnaire, which assessed reported strategy use. Having briefly analyzed learner diaries, I shall now present the qualitative analysis of the questionnaire evaluating the instructional phase of the study.

4.3.2 Evaluation questionnaire

Additional qualitative data were obtained through the analysis of questions 2 and 4 in the questionnaire that evaluated the post-instructional phase of the study. In overall terms, while question 2 aimed at eliciting whether students used any of the strategies taught prior to the instructional phase of the study, question 4 sought to investigate whether students in the experimental group started using the strategies of planning, monitoring and evaluation during the instructional phase of the study.

The analysis of the answers to question 2 revealed that in the phase prior to strategy instruction none of the participants described using the three metacognitive strategies devised for the instructional phase of the study. Most students, in fact, described using one or, at the most, two strategies on pre-instructional performance. For instance, participants 7 and 11 stated[14] that:

Participant 7: I did not know that it was a strategy, but now I know that I used the strategy of monitoring.
Participant 11: Sometimes I used the strategy of planning and also monitoring. However, I was not sure on how to best employ these strategies to my L2 oral production.

As question 2 attempted to verify whether participants employed any of the strategies taught prior to the instructional phase, it can be confirmed that the students in the experimental group were coherent with the strategies reported in the pre-instructional phase of the study. As an example, participant 7 indicated resorting to

[14] As the evaluation questionnaire was designed in Portuguese, the answers provided by the students were translated into English by this researcher.

monitoring in the questionnaire assessing reported strategy use as well as in the questionnaire evaluating the instructional phase of the study. Similarly, participant 11 suggested that she had already employed the strategies of planning and monitoring in the evaluation questionnaire and she also reported these two strategies in the questionnaire assessing pre-instructional reported strategy use. Therefore, the answers to question 2 provide further validation of the strategies reported in the pre-instructional questionnaire, which assessed participants' reported strategy use.

As regards post-instructional reported strategy use, the answers provided to question 4, which aimed at verifying participants' strategy use after receiving specific strategy instruction, revealed students' increased enthusiasm about strategy instruction.

Participant 4: Thanks to the classes on L2 strategy instruction I learned how to effectively employ the strategies of planning, monitoring and evaluation to my L2 oral performance. However, I would like to highlight that these four classes were extremely important in order to give me more motivation to speak, to listen and to write more often in English. I think that I'm a totally different L2 student. Now, I've got the power!
Participant 6: During these classes I learned how to best profit from the strategies of monitoring, planning and evaluation so as to improve my L2 speaking performance. Now, I feel more confident to speak English and I know how important is to practice L2 speaking and always evaluate my performance. It was great! We should have had these classes in the first year of our undergraduate course.

The statements provided by the experimental group (in question 4) provide a strong indication that the students validated the strategies reported in the questionnaire assessing reported strategy use. Participants 4 and 6, for example, revealed using the strategies of planning, monitoring and evaluation after receiving explicit strategy instruction. These students also reported employing three metacognitive strategies in the questionnaire assessing post-instructional reported strategy use. Equally important is the fact that the answers provided to question 4 also captured the students' increased enthusiasm about strategy instruction. Participant 4, for instance, claimed that she became *'a totally different student'* after being exposed to strategy instruction. This student also demonstrated the development of more positive attitudes towards L2 learning by claming that after strategy instruction she has *'got the power!'* By the same

token, participant 6 stated feeling *'more confident to speak English'* besides acknowledging that the classes were *'great'*. Taken together, the answers provided for questions 2 and 4 point to the validation of the strategies reported by experimental group participants (in both the pre- and post-instructional questionnaires) and to the development of more positive attitudes towards L2 learning and more enthusiasm about strategy instruction. The next section discusses the impact of learning strategy instruction on L2 learners' oral performance as well as the relationship between reported strategy use and L2 oral performance.

4.4 General discussion

This study was undertaken in order to investigate the impact of learning strategy instruction on L2 learners' oral performance and the relationship between strategy use and L2 oral performance. The participants of this study were 22 undergraduate L2 learners divided into experimental and control groups. Participants' speech data were collected on a pre- and post-instructional basis. Learners overall L2 speaking performance was elicited through a video-based narrative task in terms of (1) fluency (i.e., speech rate pruned and speech unpruned), (2) accuracy, (3) complexity and (4) weighted lexical density. Data on reported strategy use were analyzed based on subjects' pre- and post-instructional questionnaires, learner diaries and the questionnaire evaluating the instructional phase of the study.

At the time of the instructional phase of the study, experimental group participants received explicit strategy instruction on how to employ the metacognitive learning strategies of planning, monitoring and evaluation to their L2 speech performance. This study addressed the following research questions: (1) What are the effects of learning strategy instruction on L2 learners' oral performance; and (2) Is there

a relationship between strategy use and L2 oral performance? The following sub-section discusses and answers the research questions addressed in this study based on the results of quantitative and qualitative analysis of data and in light of existing research in L2 strategy instruction and L2 oral production.

4.4.1 What are the effects of learning strategy instruction on L2 learners' oral performance?

Concerning the first research question addressed by the present study, results of a quantitative analysis provided strong support that learning strategy instruction produces an impact on learners' L2 oral performance. The statistical procedures adopted in this study determined similarities and differences in participants' performance on a pre- and post-instructional basis. Therefore, the results of Independent samples t-tests revealed that, in the phase prior to strategy instruction, experimental and control groups were homogeneous not only in terms of reported strategy use, but also in each of the L2 speaking measures under investigation. Homogeneity, between experimental and control groups, was further supported by the assessment of participants' L2 speaking proficiency, which verified that both groups were considered similar as regards their L2 oral proficiency level. In addition, a Pearson's correlational analysis demonstrated that, for each of the L2 speaking measures under scrutiny, there was consistency in terms of participants' performance (between pre- and post-instructional phases) for both the experimental and control groups. The results of Pearson's correlational analysis, however, revealed a lack of significant correlation on participants' performance between the two phases of the study in terms of reported strategy use. This non-significant correlation was related to the fact that the participants of the experimental group reported a greater number of strategies in the post-instructional phase, as

compared to the number of strategies reported by the participants of the control group. This fact was taken into account when the third statistical procedure namely, GLM repeated measures was employed.

The GLM repeated measures revealed that (1) there were differences in the performance of experimental and control groups as regards pre- and post- instructional phases, and (2) the gains obtained by the experimental group, in terms of the production of more accurate, more complex and more weighted lexically dense language, were greater than the gains obtained by the control group. Nevertheless, the lack of statistically significant differences in the pre- and post-instructional performance of both groups, concerning speech rate pruned and speech rate unpruned, appears to be related to the participants' lower level of L2 speaking proficiency. According to Dörnyei and Kormos (1998) it is likely that L2 speakers who have not yet developed automaticity on language production will find several grammatical and lexical difficulties in order to encode their messages. Moreover, the cognitive demands involved in the production of L2 speech (Bygate, 2001b) may have refrained students from producing more fluent language between the pre- and post-instructional phases of the present study. Lack of improvements in terms of speech rate pruned and unpruned may also suggest the presence of trade-off effects on language production (Skehan, 1998) among the variables of complexity, accuracy, weighted lexical density and fluency.

In summary, results of the present study show that, in the pre-instructional phase of the study, experimental and control groups were considered homogeneous as regards L2 speaking performance and reported strategy use. After four weeks of strategy instruction, however, students in the experimental group outperformed the students in the control group as regards complexity, accuracy, and weighted lexical density. Thus, this study provides evidence that the explicit teaching, modeling, and practicing of the

metacognitive language learning strategies of planning, monitoring, and evaluation impacts learners' L2 speaking ability. Finally, results of this study are in parallel with previous research conducted by Varella (1997); Cohen, Weaver and Li (1998) and Lucena and Fortkamp (2001), which indicated that strategy instruction yields a positive effect on learners' L2 oral performance.

4.4.2 Is there a relationship between strategy use and L2 oral performance?

In order to determine the relationship between L2 oral performance and strategy use, a quantitative analysis was employed to each of the measures of L2 speaking under investigation and to participants' reported strategy use between both phases of the study. Learner diaries and the evaluation questionnaire also provided data from a qualitative perspective in order to verify whether the experimental group participants confirmed pre- and post-instructional reported strategy use.

In the phase prior to strategy instruction the participants, in both the experimental and control groups, reported to use one learning strategy on average. At the time of the post-instructional phase, while the participants in the experimental group reported to use approximately three learning strategies (i.e., planning, monitoring and evaluation), the participants of the control group reported to use one learning strategy on average. Learner diaries and the post-instructional evaluation questionnaire confirmed the strategies reported by experimental group participants in the pre- and in the post-instructional phases of the study.

The results of quantitative analysis through GLM repeated measures revealed that the experimental group attained greater gains between both phases of the study on the dimensions of complexity, accuracy and weighted lexical density. These gains were influenced by the experimental condition of strategy instruction, received exclusively by

the experimental group. The control group, in turn, reported fewer strategies than the experimental group (in post-instructional performance) and produced smaller gains between pre- and post instructional performance, in terms of accuracy, complexity, and weighted lexical density. As regards fluency, as measured by speech rate pruned and unpruned, there were no statistically significant differences, between pre- and post-instructional performance, for the participants of the experimental and control groups. As previously discussed, the absence of significant differences in speech rate pruned and rate unpruned might be associated to the L2 learners' level of speaking proficiency, to their lack of automaticity in producing L2 speech, as well as to the presence of trade-off effects on language production. Therefore, these results point to a close relationship between the improved performance of the experimental group with the higher number of strategies reported by this group in the post-instructional phase the study.

By means of summary, the results of the present study strongly parallel the ones from Varella (1997) and Cohen, Weaver and Li (1998), who demonstrated the existence of a relationship between improved L2 oral performance and greater reported strategy use. Beyond the scope of the second research question addressed in the present study, it appears feasible to suggest that gains in L2 speech performance, along with increased reported strategy use, might also be related to the learners' greater enthusiasm for strategy instruction and to the development of more positive attitudes towards L2 learning. This latter finding is further supported by the qualitative analysis of the questionnaire evaluating the instructional phase of the study, as well as the strategy game played on the final day of the instructional phase, which revealed increased motivation (Nunan, 1996) among the participants of the experimental group.

The next chapter presents the conclusions obtained from the results of the present study, the limitations of this research, as well as some suggestions for further research.

CHAPTER 5

FINAL REMARKS

The objective of this chapter is to summarize the main findings of the present study, which aimed at investigating the effects of strategy instruction on learners' L2 oral performance and the relationship between strategy use and L2 oral performance. This chapter is divided into 3 sections. Section 5.1 presents the major findings obtained from both quantitative and qualitative analysis of data. Section 5.2 highlights the pedagogical implications of these findings. Section 5.3 features the limitations of the study as well as suggestions for further research in the Strategy Instruction and L2 Speech Production areas.

5.1 Conclusions

The most important findings obtained from data in terms of the two research questions addressed by this study can be stated as:

➔ Finding (1): Strategy instruction has an effect on learners' L2 oral performance mainly in terms of the production of more complex, more accurate and more weighted lexically dense language.

➔ Finding (2): There exists a relationship between increased reported strategy use and improvements in L2 oral performance. The greater gains obtained by the experimental group on the L2 speaking dimensions of complexity, accuracy, and weighted lexical density are associated with the condition of strategy instruction.

➔ Finding (3): Learners who apply the metacognitive learning strategies of planning, monitoring and evaluation to their L2 oral production perform better than those who do not.

➜ Finding (4): The lack of improvements on the basis of speech rate pruned and unpruned, appears to be related to (i) the participants' lower level of L2 speaking proficiency, (ii) the participants' lack of automacity of the major processes needed to produce L2 speech (Bygate, 2001b) and (ii) constrains related to the learners' limited amount of grammatical and lexical resources (Dörnyei & Kormos, 1998; Poulisse, 1999).

➜ Finding (5): The absence of improvements in terms of speech rate pruned and unpruned can also be explained in terms of trade-off effects on L2 speech production (Foster & Skehan, 1996; Skehan, 1998). This means that the participants of this study allocated their attentional resources to accuracy and complexity at the expense of fluency, which was measured by speech rate pruned and unpruned.

➜ Finding (6): Task familiarity yielded an effect on all participants' L2 speaking performance. Nevertheless, as the gains obtained by the experimental group (on the basis of complexity, accuracy and weighted lexical density) were greater than the gains obtained by the control group, task familiarity per se cannot solely account for the improved performance of the experimental group. The results of this study, thus, suggest that strategy instruction has a positive effect on learners' L2 speaking ability.

➜ Finding (7): The analysis of data from a qualitative perspective revealed that the participants of the experimental group demonstrated a greater enthusiasm for strategy instruction and the development of more positive attitudes towards L2 learning.

Overall, the results of the present study support previous research on learning strategy instruction and L2 oral production showing that the explicit teaching of learning strategies yields an impact on learners' L2 speech performance (Cohen, Weaver & Li, 1998; Lucena & Fortkamp, 2001; Varella, 1997). The results of this research are also in line with Varella (1997), and Cohen, Weaver and Li (1998), who

demonstrated a relationship between improved L2 speaking performance and greater reported strategy use. Finally, evidence gathered from the qualitative data appears to suggest that strategy instruction leads to the development of more positive attitudes towards the L2 learning process.

5.2 Pedagogical Implications

As stated at the outset of this chapter, this study aimed at investigating the effects of strategy instruction on learners' L2 oral performance and the relationship between strategy use and L2 oral performance. In light of the findings of the present research, it seems insightful to suggest that strategy instruction does have a major role in the foreign language classroom for both learners and teachers. Strategy instruction can empower students to develop an increased awareness of how learning strategies can help them improve L2 speaking as much as they can empower teachers to facilitate target language performance. Therefore, an important pedagogical contribution provided by the present study is that the discipline of language learning strategies should be included in the curriculum of Letras undergraduate courses in Brazil so as to teach students how to perform the 'wake up call' (Cohen, 1998) to language learning.

The findings of this study also speak in favor of introducing, explaining, describing, discussing and practicing language learning strategies in order to (1) facilitate learners' endeavors to become successful L2 speakers and (2) to encourage the development of more positive attitudes towards L2 learning. In this manner, strategy instruction can also help students decide when, how and why (Cohen, 1998) strategies should be adopted so as to better approach language tasks. A final pedagogical implication of this study is related to the fact that teachers should not postpone strategy instruction until learners achieve a desired level of L2 proficiency. Otherwise, as stated

by Cohen (1998), strategy instruction may never happen. The lesson we learn here is that strategy instruction should be given as early as possible in the process of L2 learning.

5.3 Limitations of the Study and Suggestions for Further Research

As an exploratory and tentative study, the present research was carried out to investigate the impact of strategy instruction on L2 learners' oral performance and the relationship between strategy use and L2 oral performance. This study was anchored in the theoretical, methodological and pedagogical foundations of the literature on L2 Speech Production and Language Learning Strategies. However, it needs to be highlighted the fact that L2 oral production is approached as the most challenging modality (Chamot, 2005) for strategy instruction. Therefore, taking into account the challenges and difficulties to implement and to conduct such investigation, some limitations of the present study and suggestions for further research are:

1. Sample Size: The results of this study cannot be generalized due to the L2 sample size investigated. Although 22 undergraduate L2 learners participated in all phases of data collection, further studies in the field should strive to involve a greater number of participants in order to provide findings that can be stated more strongly. This care should be taken especially because studies on L2 strategy instruction must have experimental and control groups in order to compare the effects of instruction on L2 learners' oral performance.

2. The power of suggestion: The fact that the participants of the present study belonged to the same classroom environment may have produced an impact on the control group oral performance. According to Cohen (1998), the "power of suggestion" (p. 147) may raise the learners' awareness (in control groups) as regards the strategies needed to

perform distinct language tasks. Although all efforts have been made in order to control for the possible influence of the power of suggestion, it is difficult to determine to what extend the participants of both groups may have exchanged information as regards the instructional phase of the study. Further research, therefore, should avoid selecting participants from the same classroom environment, so as to control for the effect of the power of suggestion on target language performance.

3. Participants' proficiency level: The assessment of L2 learners' speaking proficiency showed that the participants of this study were considered L2 speakers at a beginner to low-intermediate level of proficiency. Therefore, the results of this study cannot be generalized to higher levels of L2 speaking proficiency. In this manner, further studies in the field should conduct investigations with distinct levels of L2 speaking proficiency in order to better unravel the effects of instruction on learners' L2 oral performance, especially as regards the effects of fluency on L2 speaking.

4. Elicitation of L2 speech: The task selected in order to elicit participants' speech production was a video-based narrative task. Although literature in L2 production asserts that narratives are considered appropriate to collect speech data, it needs to be underscored the fact that the participants' oral performance is somewhat restricted to the task devised in the present research. Additional studies should attempt to collect speech data from distinct oral tasks so as to provide more strong findings regarding the impact of strategy instruction on learners' L2 speaking performance.

5. Frequency of strategy: This study focused on the number of strategies reported per participant, rather than on successful use. This methodological approach followed previous research, which investigated the relationship between an increase in the frequency of reported strategy use and improvements in L2 oral performance (Varella, 1998). Nevertheless, this procedure may have overlooked the importance of obtaining a

direct measure, which verified how successful the L2 learners used strategies. Thus, it would be beneficial to select an assessment method that provides a link between successful strategy use and frequency of strategies in order to obtain a more detailed analysis of the relationship between strategy use and L2 oral performance.

6. Fluency measures: This study measured fluent performance exclusively in terms of speech rate pruned and unpruned. Despite the suggestion that speech rate is one of the most salient features of L2 speech production (Ejzenberg, 2000), additional studies should investigate other temporal variables of L2 fluency such as pausing, filled and unfilled pausing, hesitations and repair phenomena so as to obtain a more global view of participants' fluent performance.

7. Delayed posttest data: This study investigated the effects of strategy instruction on L2 learners' oral performance, on a pre- and post-instructional basis. Following previous research in the field, post-instructional L2 speech performance was assessed after strategy instruction had been provided. Further studies, however, should also seek to investigate whether the effects of strategy instruction endure over time.

Finally, it is important to underscore the fact that strategy instruction is neither the solution nor the remedy for all challenges encountered in L2 teaching and learning. In fact, planning, implementing and conducting strategy instruction demands a much greater effort than providing regular L2 classes. However, this study has allowed to experiment that, as much as strategy instruction encourages students to become better language learners, it also offers teachers a great deal of rewards for fostering the students' change of attitudes towards language learning.

While much research still needs to unravel the complexities of L2 speaking, it is hoped that the present work opens an avenue of inquiry into the impact of strategy instruction on L2 learners' oral performance as well as the relationship between strategy

use and L2 oral performance. All and all, it is hoped that this study contributes to the much-needed research in the fields of strategy instruction and L2 speech production and provides further grounds so as to recognize L2 speaking as a skill in its own right.

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APPENDIX A - <u>PARTICIPANTS' CONSENT FORM</u>

Universidade Federal de Santa Catarina (UFSC)
Centro de Comunicação e Expressão (CCE)
Pós-Graduação em Inglês e Literatura Correspondente (PGI)

CONSENT FORM

Dear student,

You are invited to be in a research study in the field of learning strategies in foreign language learning. You were selected as a possible participant because you are a Letras undergraduate student at UNESC (Universidade do Extremo Sul Catarinense). This study is being conducted by **Lisiane Rossi** (master candidate in linguistics at UFSC) under the supervision of **Dr. Mailce Borges Mota.**

If you agree to participate in this investigation we can ensure that your name will never be disclosed. It is also important to highlight that only the researcher and the advisor of this study will have access to the research records, or any other instrument, that will be used to conduct this investigation.

Your decision whether or not to participate will not influence your relation with your teachers, neither affect your current relations with the university. If you decide to participate, however, you will greatly contribute to research on L2 teaching and learning.

You may ask any questions you have now. If you have questions later, you may contact Lisiane Rossi at 439-0676, or at lisirf@bol.com.br.

You will be given a copy of this form.
By signing this consent form you agree to be in this study.

Signature _____ Date _____
Signature of Investigator _____ Date _____

APPENDIX B - <u>RATING SCALES</u> - Adapted from FCE speaking test assessment scales (Cambridge Examination), and Iwashita, McNamara and Elder, 2001.

	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Grammar and Vocabulary • *Range* • *Accuracy* • *Appropriacy*	Insufficient sample of spoken language	• The range of grammatical forms and vocabulary is not adequate. • Grammar is insufficiently accurate to deal with the tasks, and errors obscure intended meanings. • Vocabulary is used inappropriately, or may be too limited to deal with the tasks. • Clear lack of linguistic control even of basic forms.	More features of 1.0 than 3.0	Some features of 3.0 and some features of 1.0 in approximately equal measure	More features of 3.0 than 1.0	• An adequate range of grammatical forms and vocabulary is used. • Grammar is sufficiently accurate to convey intended meanings. • Vocabulary is sufficiently appropriate to deal with the tasks. • Manages most common forms, with occasional errors; major errors present.	More features of 3.0 than 5.0	Some features of 3.0 and some features of 5.0 in approximately equal measure	More features of 5.0 than of 3.0	• A wide range of grammatical forms and vocabulary is attempted. • Grammar is mainly accurate, although minor errors may occur • Vocabulary is sufficiently appropriate to deal with the tasks effectively. • Errors are barely noticed.
Complexity and discourse management • *Coherence* • *Extent* • *relevance*		• Produces mostly sentences fragments and simple phrases. Little attempt to use any grammatical means to connect ideas across clauses. • Contributions lack relevance and/or coherence, and are inadequate in developing the discourse. • Contributions are of an inappropriate length.				• Mostly relies on simple verb forms, with some attempts to use a greater variety of forms (eg., passives, modals , more varied tense and aspect). Some attempt to use coordination and subordination to convey ideas that cannot be expressed in a single clause. • Contributions are mostly relevant and coherent, and are adequate in developing the discourse. • Contributions are usually of an appropriate length.				• Confidently attempts a variety of verb forms (eg. Passives, modals , tense , and aspect), even if the use if not always correct. Regularly takes risks grammatically in the service of expressing complex meaning. Routinely attempts the use of coordination and subordination to convey ideas that cannot be expressed in a single clause, even if the result is occasionally awkward of incorrect. • Contributions are relevant and coherent, and are effective in developing the discourse. • Contributions are consistently of an appropriate length.
Fluency • *Stress and rhythm* • *Intonation* • *Individual sounds* • *Presence of hesitation and false starts* • *Pausing patterns*		• The use of stress, rhythm and intonations is inappropriate and puts a strain on the listener. • Poor articulation of individual sounds makes utterances difficult to understand. • Speech is quite disfluent due to frequent and lengthy hesitations or false starts. Too much use of filled and unfilled pauses within clauses.				• The use of stress, rhythm and intonations is sufficiently appropriate for most meanings to be conveyed effectively. • Individual sounds are articulated sufficiently clearly for utterances to be understood, although there may be occasional difficulty for the listener. • A reasonable degree of hesitation due to word-finding delays, relative ability to phrase utterances easily. • Reasonable use of filled and unfilled pauses within clauses. • Speaks fairly fluently with only occasional hesitation, false starts and modification of attempted utterance.				• The use of stress, rhythm and intonations is sufficiently appropriate for meanings to be conveyed effectively; • Individual sounds are articulated sufficiently clearly for utterances top be understood easily. • Speaks fluently, without any hesitation, false starts and modification of attempted utterances. Barely makes use of unfilled and filled pauses within clauses – filled and unfilled pauses occurring at the end of clause boundaries.

APPENDIX C - RATING SCORE CHARTS

ASSESSMENT SPEAKING TEST – MARK SHEET
ASSESSOR'S NAME - _____
PARTICIPANT'S NUMBER _____
GRADE ACHIEVED - _____

MARKS AWARDED

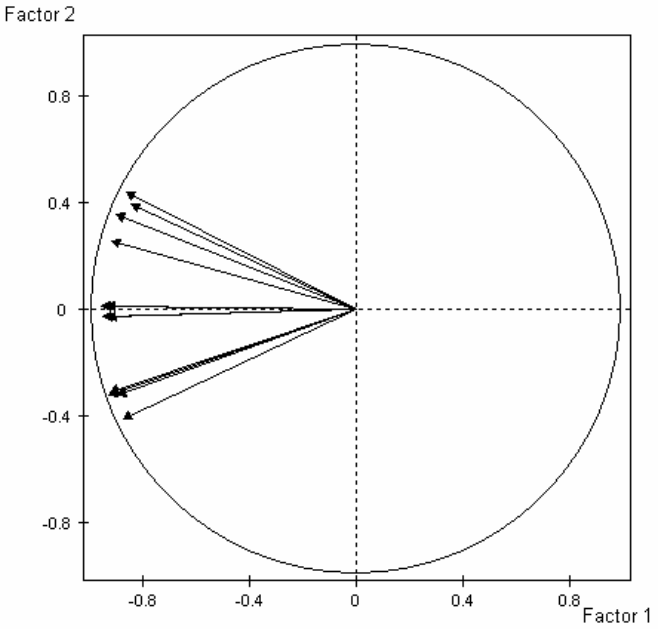
Grammatical Resource	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Lexical Resource	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Complexity/ Discourse Management	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Fluency	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

ASSESSMENT SPEAKING TEST – MARK SHEET
ASSESSOR'S NAME - _____
PARTICIPANT'S NUMBER _____
GRADE ACHIEVED - _____

MARKS AWARDED

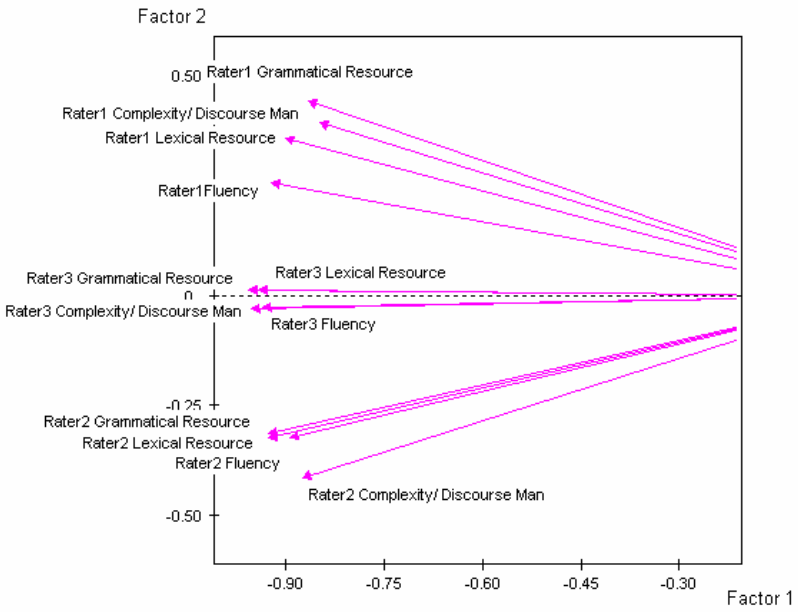
Grammatical Resource	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Lexical Resource	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Complexity/ Discourse Management	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Fluency	0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

APPENDIX D – <u>PRINCIPLE COMPONENT ANALYSIS:</u>



As can be observed in the graph above each of the four variables evaluating L2 speech performance is represented by an arrow. In addition, each set of four arrows comprises the scores provided by one of the three raters. As a result, a set of 12 variables forming a small angle within one another can also be visualized. This relatively small angle within each variable represents a positive correlation among the scores given by each of the three raters on the four dimensions of speaking performance under evaluation. A more detailed overview of this correlation, can be seen in graph 3.2 which presents a zoom of the correlation cycle among the twelve variables, and within each of the three raters:

Zoom of the correlation cycle



Upon processing the scores given by the three raters, the analysis of the results in principal components enables the representation of a correlation cycle on the scores provided in each of the four dimensions (grammatical accuracy, lexical appropriateness, complexity and fluency). This representation not only allows comparisons among all the variables, but also provides a comparison of the scores given by the raters in each variable. Thus, a correlation of the scores provided (on the L2 speaking dimensions evaluated) demonstrates that all three raters were consistent with the scores given to each of the four variables. This consistency, thus, is able to confer intrarater reliability to this study.

APPENDIX E - <u>BACKGROUND QUESTIONNAIRE</u>

1) Student's name: _____

2) Date _____

3) Age _____

4) Sex Female____ Male _____

5) How long have you been studying English?

( ) 1 - 2 years ( ) 3 – 4 years ( ) 5 – 6 years ( ) more than 6 years

6) How do you rate YOUR overall proficiency in English compared with the proficiency of other students in class?

( ) excellent ( ) good ( ) fair ( ) poor

7) How do you rate YOUR overall proficiency in English as compared with the proficiency of native speakers of the language?

( ) excellent ( ) good ( ) fair ( ) poor

8) Is there a language skill in English you still would like to improve as a foreign language learner?

( ) Yes ( ) No

→ If you answer *No* to question #8 please go to question #9.

→ If you answer *Yes* to question #8 please answer question #8.a:

8.a) What language skill would you like to improve the most: (check one skill only)

( ) listening ( ) reading ( ) speaking ( ) writing

9) How important is it for you to become proficient in English?

( ) very important ( ) important ( ) not so important

10) Do you enjoy language learning? (circle one)

( ) Yes ( ) No

11) Why do you want to learn English? Give <u>1 to the most important</u> reason and <u>7 to the least important</u> reason:

_____ interested in the language

_____ interested in the culture

_____ have friends who speak the language

_____ require to take a course to graduate

_____ need it for my future career

_____ need it for travel

_____ other (list): _____

_____

12) Rate the following language abilities from the most important (1) to the least important (4) in your opinion:

( ) reading ( ) writing ( ) speaking ( ) listening

13) How do you rate your current level of ORAL proficiency in English?

( ) excellent ( ) good ( ) fair ( ) poor

14) What has been your favorite language learning experience?

_____

_____

_____

adapted from Oxford (1990).

APPENDIX F - PARTICIPANTS' INSTRUCTIONS ON HOW TO PERFORM THE VIDEO BASED NARRATIVE TASK

Dear student:

My greatest thanks for being a participant in this study. As you know I'm conducting this research for my master's degree in Applied Linguistics at UFSC (Universidade Federal de Santa Catarina). Your participation in all tasks proposed is very important to obtain data for conducting this research. In this phase of the study you will narrate a story you are about to watch. Please pay close attention to the instructions prior to performing the task proposed.

Thank you
Lisiane Rossi

Instructions for recording the video-based narrative:

You are going to perform a video-based narrative. After watching the video you will be requested to retell the story. Please follow these instructions:

- **Watch the cartoon with all your attention. You will watch it only once.**
- **While watching you will not be allowed to take any notes.**
- **After watching the video you will be given 10 minutes before recording your narrative.**
- **You can use the 10 minutes given as you wish.**
- **As soon as the 10 minutes time is over you will have to be prepared to retell the story you have just watched.**
- **You'll be requested to start the recording of the video-narrative without interruptions. You are not supposed to use any notes while narrating the story.**
- **You'll be given 5 minutes to retell the story. Remember to narrate the story with as many details as possible.**
- **Say your name and start retelling the story.**

Adapted from D'Ely (2004)

APPENDIX G – QUESTIONNAIRE (PRE-INSTRUCTIONAL PHASE)

Entrevista após tarefa vídeo narrativa
A você aluno e participante da pesquisa:
Novamente gostaria de agradecer a sua participação neste estudo. Como você está ciente eu estou conduzindo esta pesquisa para a conclusão do mestrado em Língua e Literatura Inglesa da Universidade Federal de Santa Catarina. A sua participação nas tarefas propostas e as suas respostas nesta entrevista são extremamente importantes para obter dados que possibilitem a análise e interpretação das informações obtidas. Agora, você irá responder a este questionário para que seja possível avaliar como foi realizada a tarefa vídeo-narrativa que você acabou de gravar. Como você já foi informado o seu nome será mantido em sigilo. Por favor, leia as perguntas com atenção, e quando eu pedir para iniciar a gravação diga o seu nome e responda as perguntas na sua primeira língua (em português). Obrigada.
Lisiane Rossi

1) **O que você fez para poder narrar a estória do desenho?**

2) **Você utilizou estratégias ou técnicas especiais que lhe ajudaram a preparar a narrativa do desenho?**

3) **Você utilizou estratégias ou técnicas especiais que ajudaram você a narrar o desenho?**

4) **Onde você aprendeu essas estratégias?**

5) **Você utiliza estas estratégias ou técnicas em outras atividades ou em outras aulas?**

6) **Que conselho você daria aos seus colegas para ajudá-los a narrar a estória de um filme?**

7) **Quais foram as partes positivas de sua narrativa?**

8) **O que você faria de forma diferenciada na próxima narrativa de um filme?**

adapted from O'Malley et al. (1985)a

APPENDIX H – QUESTIONNAIRE (POST-INSTRUCTIONAL PHASE)

Entrevista após tarefa vídeo narrativa
A você aluno e participante da pesquisa:
Novamente gostaria de agradecer a sua participação neste estudo. Como você está ciente eu estou conduzindo esta pesquisa para a conclusão do mestrado em Língua e Literatura Inglesa da Universidade Federal de Santa Catarina. A sua participação nas tarefas propostas e as suas respostas nesta entrevista são extremamente importantes para obter dados que possibilitem a análise e interpretação das informações obtidas. Agora, você irá responder a este questionário para que seja possível avaliar como foi realizada a tarefa vídeo-narrativa que você acabou de gravar. Como você já foi informado o seu nome será mantido em sigilo. Por favor, leia as perguntas com atenção, e quando eu pedir para iniciar a gravação diga o seu nome e responda as perguntas na sua primeira língua (em português).
Obrigada
Lisiane Rossi

1) **O que você fez para poder narrar a estória do desenho?**

2) **Você utilizou estratégias ou técnicas especiais que lhe ajudaram a preparar a narrativa do desenho?**

3) **Você utilizou estratégias ou técnicas especiais que ajudaram você a narrar o desenho?**

4) **Onde você aprendeu essas estratégias?**

5) **Você utiliza estas estratégias ou técnicas em outras atividades ou em outras aulas?**

6) **Que conselho você daria aos seus colegas para ajudá-los a narrar a estória de um filme?**

7) **Quais foram às partes positivas de sua narrativa?**

8) **O que você faria de forma diferenciada na próxima narrativa de um filme?**

9) **Esta narrativa foi melhor do que a realizada pela primeira vez?**

10) **O que você fez diferente nesta narrativa?**

11) **Como você ainda poderia melhorar esta narrativa caso você tivesse que narrar novamente?**

adapted from O'Malley et al. (1985)a

APPENDIX I: LEARNER DIARY

Name: _____

Date: _____

1)Today in our English class we:

……

……

2) I learned

……

……

3) The English words I learned today were

……

……

4) The strategies I used and learned were

……

……

……

5) What was difficult for me was

……

……

6) I would like to be able to

……

……

7) My plan for learning and practicing next class is

……

……

Source: Adapted from Varela (1997).

APPENDIX J - QUESTIONNAIRE EVALUATING THE INSTRUCTIONAL *PHASE:*

A você aluno e participante da pesquisa:

Por favor, leia cuidadosamente as perguntas abaixo e reflita antes de respondê-las. As informações obtidas através deste questionário são de extrema importância para a análise de dados desta pesquisa. Obrigada pela sua contribuição.

Lisiane Rossi

Nome: _____

1) Qual a sua avaliação destas aulas sobre estratégias de aprendizagem? Justifique a sua resposta:

_____
_____
_____
_____

2) Você já utilizava algumas das estratégias que você praticou durante estas aulas?
Se a resposta for afirmativa, descreva as estratégias que você já utilizava:

_____
_____
_____
_____

3) Existe alguma estratégia que você utilizava forma inadequada?

_____
_____
_____
_____

4) Na sua avaliação existe alguma estratégia que você passou a utilizar depois de participar dessas aulas? Se sim, quais? Se não, por quê?

_____
_____
_____
_____

5) Existe alguma estratégia que você não pretende utilizar futuramente? Justifique.

_____
_____
_____
_____

6) Existe alguma estratégia que você pretende utilizar futuramente? Justifique.

_____
_____
_____
_____

7) Você aconselharia a outros alunos de língua inglesa a receber instrução sobre o uso de estratégias de aprendizagem. Por quê?

_____
_____
_____
_____

8) Você observou algum efeito no seu desempenho oral na língua inglesa durante estas aulas? <u>Justifique</u> sua resposta:

_____
_____
_____
_____

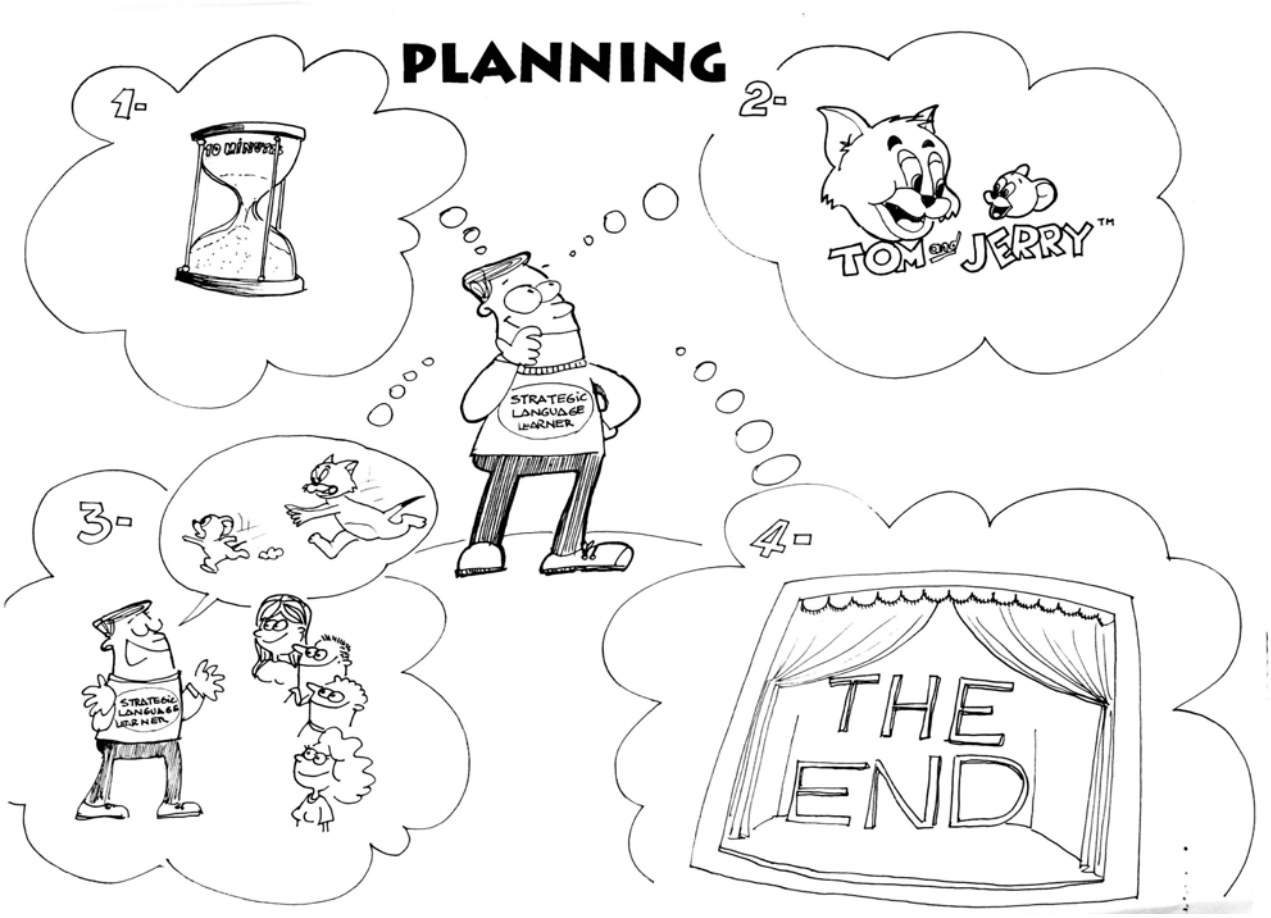
9) Na sua opinião houve alguma atividade realizada durante as aulas que você considerou útil para a melhoria de seu desempenho oral na língua inglesa? Se não, por quê? Se sim, qual?

_____
_____
_____
_____

Adapted from (Reis, 2004).

APPENDIX K – POSTERS OF THE THREE METACOGNITIVE STRATEGIES

The posters were drawn by the architect and cartoonist Marco Sônego:



MONITORING


TOM WAS VERY SAD, AND JERRY IS,... JERRY WAS...
STRATEGIC LANGUAGE LEARNER

EVALUATION


BETTER THAN BEFORE
IMPROVE PRONUNCIATION
GOOD VOCABULARY
PRACTICE MORE
EFFECTIVE MONITORING

APPENDIX L - PICTURES OF BANNERS


EVALUATION MONITORING PLANNING
211
212
213


LUATION MONITORING PLANNING
EVALUATION
200
201
209
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219
220

APPENDIX M – LYRICS: 'WAKE UP CALL'

Wake Up Call **by Phil Collins**

This is your **wake up call**... young hearts be free

Get up, get on, get out about and shout it
Tell 'em all you're dressed and on your way
Oh there's absolutely no doubt about it
This is your **wake up call**
You're gonna miss it all

Am I the only one out there that's listening
Cos it's such a lovely noise that I can hear
Eyes are opening up to all around them
This is their **wake up call**
They're gonna miss it all

1) Can you feel what's happening here
2) Everything is changing all around you
3) It's in the air, electricity
4) Everybody, yes everybody's waking up
5) Good morning to you

You're not the only one out there who's running
But the man who's sitting next to you's asleep
So pick him up and shake him till he hears you
This is his **wake up call**
He's gonna miss it all

Can you feel what's happening here
Everything is changing all around you
It's in the air, electricity
Everybody, yes everybody's waking up
Good morning to you

Those who've done all they can do sleep easy
Those that turn away, they sleep alone
But there's no doubt about it absolutely
This is a **wake up call**
We 're gonna miss it all

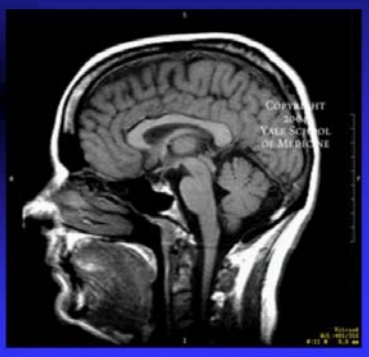
This is your **wake up call**
This is your **wake up call**
This is your **wake up call**
You're gonna miss it
You're gonna miss it all

APPENDIX N - DATA SHOW SLIDES PRESENTED DURING THE INSTRUCTIONAL PHASE

LANGUAGE LEARNING STRATEGIES ARE...

Specific actions taken by the L2 learner to make learning easier, faster, more enjoyable, and more effective (Oxford, 1990).

LANGUAGE LEARNING STRATEGIES ARE...

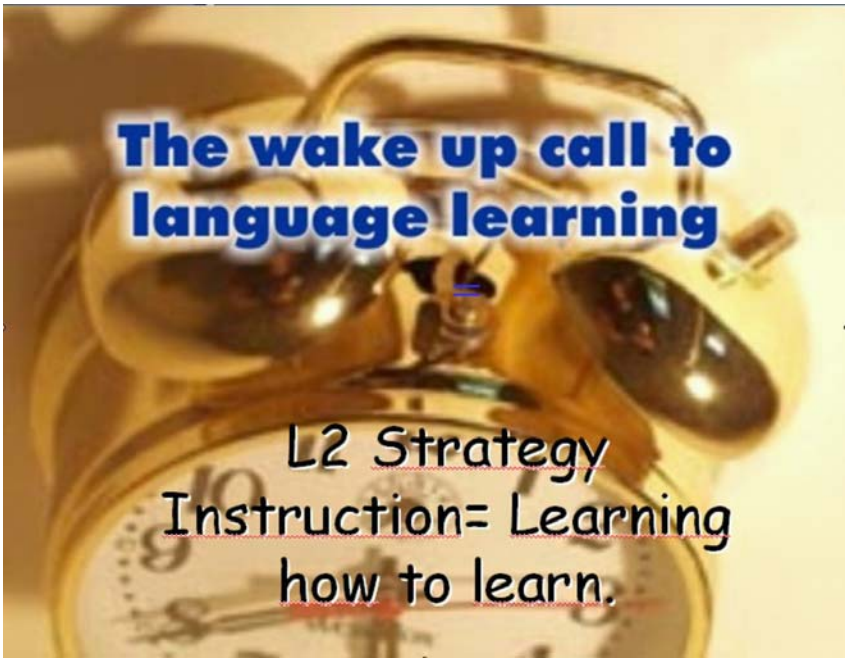


Conscious steps or actions selected by learners to enhance the learning and use of a foreign/second language (Cohen, 1998).

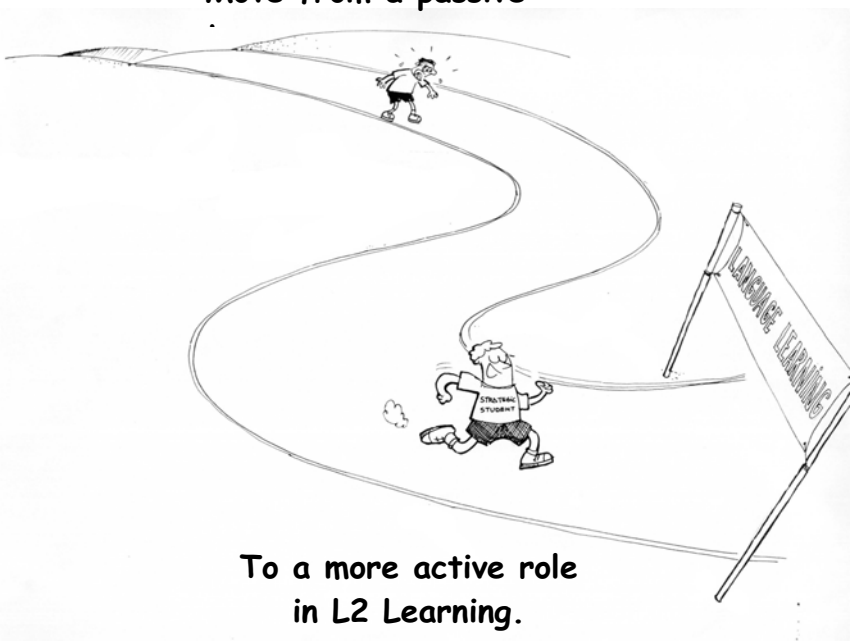
LANGUAGE LEARNING STRATEGIES ARE...

Specific thoughts or behaviors used with the explicit goal of improving learners' knowledge and understanding of a target language (Weaver & Cohen, 1997).

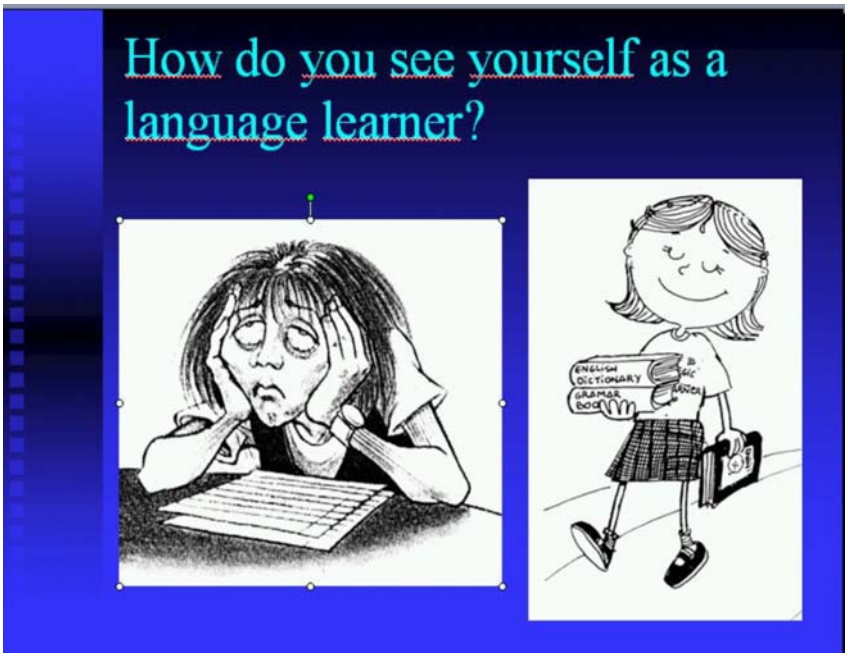
Can strategies be taught to learners?



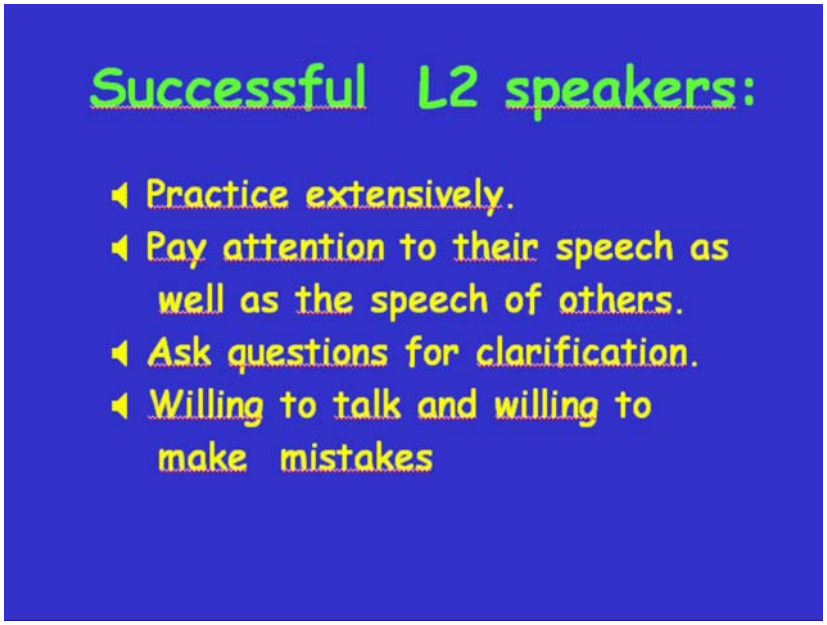
Move from a passive



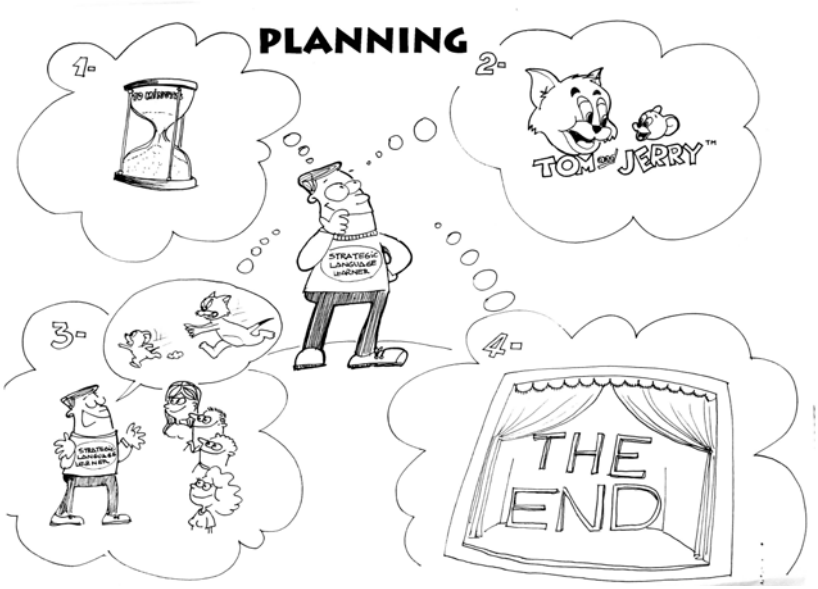
To a more active role in L2 Learning.

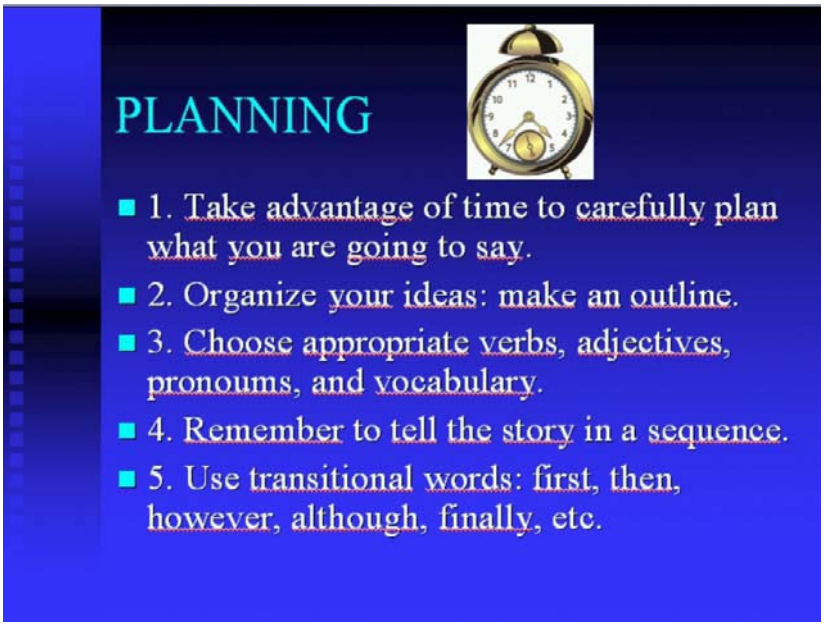

How do you see yourself as a language learner?
ENGLISH DICTIONARY
GRAMAR BOOK


How well do you want to speak English?


Successful L2 speakers:
Practice extensively.
Pay attention to their speech as well as the speech of others.
Ask questions for clarification.
Willing to talk and willing to make mistakes


WHAT STRATEGIES CAN WE USE TO RETELL A FILM STORY??


PLANNING
1-
2-
TOM AND JERRY
3-
4-
THE END


PLANNING
1. Take advantage of time to carefully plan what you are going to say.
2. Organize your ideas: make an outline.
3. Choose appropriate verbs, adjectives, pronouns, and vocabulary.
4. Remember to tell the story in a sequence.
5. Use transitional words: first, then, however, although, finally, etc.

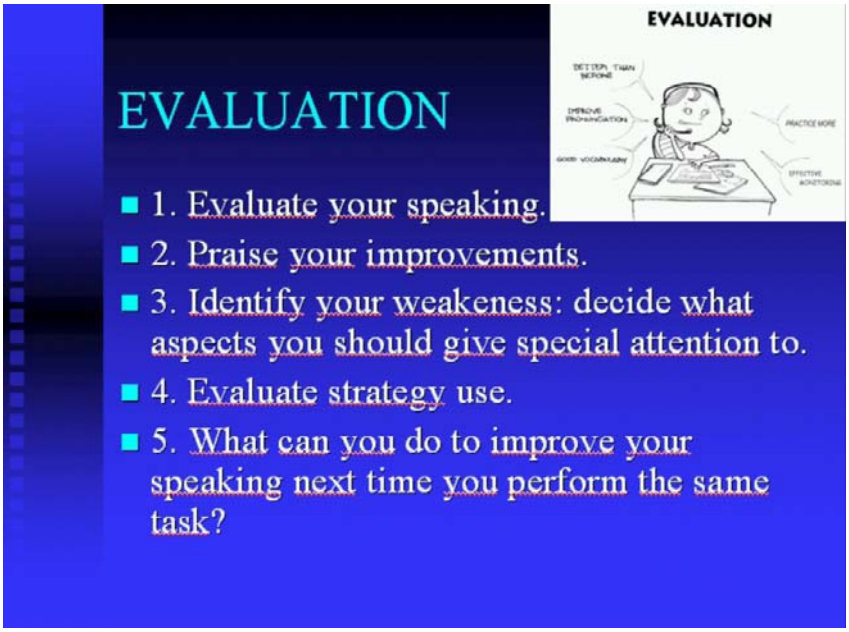
MONITORING

MONITORING

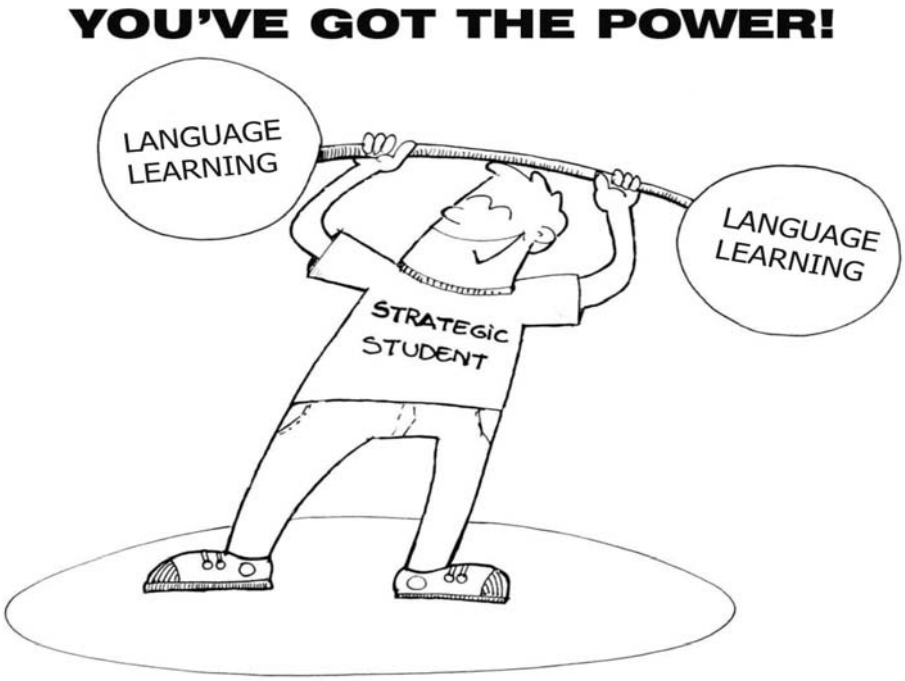
- 1. Pay attention.
- 2. While speaking monitor your speech.
- 3. If you say something incorrect, you can correct yourself.
- 4. If you notice a problem, or if you select a word that is not appropriate, say it again.

EVALUATION


BETTER THAN BEFORE
IMPROVE PRONUNCIATION
GOOD VOCABULARY
PRACTICE MORE
EFFECTIVE MONITORING


EVALUATION
1. Evaluate your speaking.
2. Praise your improvements.
3. Identify your weakeness: decide what aspects you should give special attention to.
4. Evaluate strategy use.
5. What can you do to improve your speaking next time you perform the same task?


SHE BECAME AN INDEPENDENT LANGUAGE LEARNER!
ENGLISH DICTIONARY
GRAMAR BOOK


YOU'VE GOT THE POWER!
LANGUAGE LEARNING
LANGUAGE LEARNING
STRATEGIC STUDENT

REMEMBER:

STRATEGIES ARE THE KEY FOR SUCCESSFUL LANGUAGE LEARNING.

APPENDIX O – A MODEL OF PLANNING FOR THE CARTOON *'SATURDAY EVENING FUSS'*

Saturday Evening Fuss

Tom and Jerry cartoon

1) Tom's house: a woman ➜ ☎ phone call and goes out.
Tom ➜ 🏠 home alone and 😊 very happy.

2) Tom invites some cats for a party ➜ ♫ music (piano), 📢 noise,
🍽 food, 💃 dancing.

3) Jerry ➜ 😴 can't sleep, ☹ very sad, asks Tom to stop ✋ the party.

4) Tom ➜ continues the party 📢.
Jerry ➜ starts a 🛠 fight: turns off the stereo,
closes the piano, 💥 hits the cats.

5) Tom and the cats ➜ 🥊 fight with Jerry, run to catch Jerry, get Jerry and 🔒 tie Jerry.

6) Tom and the cats ➜ ♫ continue the party.
Jerry ➜ ☎ calls the woman.

7) The woman ➜ goes back home 🏠. Kicks Tom out of the house 🚪
Jerry ➜ very happy the woman decides to listen to music ♫.
Jerry ➜ can't sleep ☹. The music 👎 continues.

8) at the end ➜ Jerry is sad
➜ it's impossible to sleep.

APPENDIX P (Teacher's transcript) - <u>Modeling of the story retelling 'Saturday Evening Fuss':</u>

I'm going to retell a story about a Tom and Jerry Cartoon which was really funny really really funny the title of the cartoon is 'Saturday Evening Fuss' well first Tom was at home with a woman who was probably his owner so everything started when this woman received a phone call probably someone invited her to go out as soon as she left the house Tom decided to have a huge party then Tom invited some cats who were on the street and and when they came they started a great party uh they were all very happy so they made a lot of noise they listened to music uh they made a lot of sandwiches they played the piano they danced so they obviously had a lot of fun uh it was a great party with loud music and everybody was having a great time so it was a big mess however Jerry was is his bed trying to sleep unfortunately he couldn't sleep because there was so much noise in the house so uh Jerry decided to leave his bedroom so he could ask Tom to finish the party then Tom said he wouldn't finish the party he probably told Jerry go back to your bed because we are having a lot a fun and we don't really care about you so Jerry got very angry he was very sad because he wanted to sleep and then Jerry decided to fight so Jerry turned off the stereo uh he closed the piano he hit the hands of a cat who was playing the piano and then all the cats got really really angry at Jerry then at this moment as it happens in all Tom and Jerry cartons a big fight started between Jerry and all the cats so Jerry ran a lot because the other cats were trying to catch him probably the cats thought ok he wants to fight so let's go for it then Jerry tried hard to escape from the cats but he couldn't you know and uh eventually the cats got Jerry they got him so they tied him you know in a curtain so Jerry couldn't move he was unable to move as it happens in most Tom and Jerry cartoons the main characters can do things that are not usual they can do things such as they can call someone and that was exactly what Jerry did although he couldn't really move a lot he could find a way to reach the telephone and uh he

called the woman he probably asked the woman to come home immediately because the cats were making a great party and they were destroying the house then uh the woman we could see that she was very angry so she came back home immediately as soon as she arrived home she kicked Tom she hit him and uh she threw him out of the house not only Tom but the other cats as well so the cats are out of the house Tom is there very sad very unhappy because they had to finish the party then Jerry probably thought ok now I'll sleep and have good dreams and nothing else will happen finally Jerry went to bed and when he thought he could sleep again guess what [(laugh)] well uh what happened was that the woman decided to listen to music and then the party started all over again with loud music and a lot of noise that's it end of the story both Tom and Jerry were very sad depressed and unhappy uh ok that was the story of Saturday evening fuss

APPENDIX Q – <u>The Strategy Game</u>

The Strategy Game

In the following situations you need either to provide suggestions for strategy use or to discover the strategies the L2 learners or teachers are employing. Justify your choices:

1) *Sandy has an oral presentation for her English class next week. She has to talk for 5 minutes about the best day of her life. Sandy is worried because she is afraid of not remembering many details of the 'best day' while presenting the oral task.* **Is there a strategy Sandy can use to help her make a successful presentation? How this strategy can help her remember more details about the topic?**

2) *Michael is Brazilian and he enjoys studying English. However, he usually makes mistakes while speaking English. The problem is that he keeps making the same mistakes over and over again.* **What strategy he should use more often to improve his speaking skills in English? Why?**

3) *Sandra loves to retell stories in her English classes. She always records herself speaking English, and listens to the recordings as soon as she arrives home. Then, she always writes down the good parts of her recordings, and also she notes what can be improved.* ***What strategy is she using? Why?***

4) *In an English class students watched the film "The Terminal" starred by the actor Tom Hanks, and the actress Katherine Zeta Jones. After watching the movie the students were requested to retell the film story, and were asked to record their stories in the tape recorders at the language lab. Students were given* ***10 minutes*** *before recording their narratives.*

Why has the English teacher provided 10 minutes to students? How can L2 learners effectively use the time given before narrating a story? What students should never during the 10 minutes?

5) *In an L2 classroom students were requested to present an oral task in which they had to tell a story about their most positive experience while learning English. After each presentation the English teacher asked students the following questions:*

1) *What were the good parts of your presentation?*
2) *What could be improved?*
3) *Why is it important to evaluate your speaking performance?*

Why has the teacher asked these questions? Which strategy does the teacher want students to practice?

Source: Original

APPENDIX R – Detailed description of the instructional phase of the study

The first session

The first session (April 11th, 2005) started with the song 'Wake Up Call', which was selected for incorporating the idea introduced by Cohen (1998) that L2 strategy instruction can be viewed as a wake up call to language learning. In this class, the lyrics were shown through an overhead projector, and students were given a handout containing the lyrics. Participants were invited to sing along and to discuss which features might depict the wake up call to L2 learning. Then, an alarm clock was also shown to students in order to demonstrate that explicit strategy instruction can help learners "move from a passive to a more active role" (Cohen, 1998, p. 25) in L2 classrooms.

After this initial discussion, this researcher started presenting the lecture entitled 'The wake up call to language learning' which contained the definition of language learning strategies, the main characteristics of successful L2 speakers, and the strategies devised for the study, among other features. This lecture was presented with the aid of data show equipment (see appendix N for the slides presented) and incorporated the suggestions provided by Weaver and Cohen (1997) and Rubin and Thompson (1994) on how to provide strategy instruction and help students become better language learners. Classroom discussion concerning L2 teaching and learning revealed that some students were not feeling greatly motivated to study English and concerns were voiced as regards difficulties to speak in English.

Towards the end of the session, students were asked to complete the sentences in the first learner diary (see appendix I). Then, all the diaries were collected by this researcher. As a homework assignment, students were requested to prepare a two-minute oral presentation about themselves for the second instructional class. Students were also requested not to discuss the content of the classes with their counterparts (students in the control group) and

were also encouraged to employ the strategies discussed in classes when performing their homework assignment.

The second session

The second session of the instructional phase (April 18th, 2005) also started with the song 'Wake Up Call' (see appendix M). This time students were invited to sing along, and dance around the class. Students in the experimental group were also asked to present the oral activity requested as homework to the whole group. Requesting students to perform the oral activity and to dance the 'Wake Up Call' was based on the suggestion provided by Nunan (1999) who claims that even reluctant speakers are encouraged to participate in speaking activities when the teacher provides dynamics that allow students to move in L2 classrooms. According to Nunan (1999), reluctant speakers are those learners who are often unwilling to become actively involved in speaking. For this researcher, this reluctance might be due to their prior learning experiences where opportunities to speak are severely limited. Moreover Nunan (1999) asserts that, by breaking the rule that students should remain seated in class, it is also possible to break the rule that learners should not speak in class (p.232).

After this activity, the strategies of planning, monitoring, and evaluation were reviewed, and discussed. Then, each participant received the transcript of the story they recorded in the pre-instructional phase of the study. In this awareness raising activity, students were asked to evaluate their L2 speech performance and to detect possible problems in their productions. Students were also asked to discuss, in pairs, how the strategies taught could yield a positive impact on their oral performance.

Participants were later taken to the language lab where they listened to their own recordings. Students were again asked to assess their L2 speech performance and reflect on improvements needed for successfully performing a future video-based narrative. Sequentially, students watched the *Tom and Jerry* cartoon (*Saturday Night Fuss)* presented in

the pre-instructional phase, and were requested to focus on the most important parts of the story. Next, students were guided on how to plan a video-narrative, and a model for planning the retelling of the story was presented (see appendix O). Right after that, a discussion ensued as to the importance of retelling the story in a sequence and using transitional words such as *then*, *next*, and *finally* in order to better approach story retelling tasks. Following that, the teacher also guided students to use specific chunks of language when retelling stories. Then, the teacher wrote the following sentences on the board: '*once upon a time'*, '*this is a story about',* and *'this* cartoon *presents a funny story about'*.

As an additional awareness raising activity, participants listened to a video-based narrative recorded by this researcher (see appendix P for the transcripts of the video narrative task), and were asked to evaluate her L2 oral performance. The objective of this activity was twofold. First, it intended to show students how to employ transitional words to better retell stories in a sequence. Secondly it aimed at providing a model on how the strategies taught could yield a positive impact on L2 performance. This activity was selected based on Oxford's (1996) suggestion that lesson plans in strategy instruction must contain explicit discussion, modeling, practicing, evaluation, and transfer of language learning strategies (p.248).

Afterwards, students were encouraged to record their own narratives and were also reminded to apply the strategies of planning, monitoring, and evaluation to their oral performance. Soon after that, participants listened to the recordings and evaluated their L2 speaking performance as well as their strategy use. Finally, students completed the learner diary and were assigned an oral activity to be presented in the third session of the instructional phase: "the best film I have seen in my life".

Third session

The third session of the instructional phase took place on April 25th, 2005. Classes started with the majority of students presenting the previous homework assignment. Participants 5 and 10, however, were not willing to present. Sequentially, the students and this researcher sang and danced the song entitled the 'Wake Up Call'. Afterwards, the metacognitive strategies of planning, monitoring, and evaluation were reviewed using data show equipment. Then, participants were told that the first part of the class would focus on the strategy of evaluation. In order to do so, this researcher asked students to have their narratives listened to and evaluated by all students on a volunteer basis. Participants 4, 6, and 9 were the only ones who volunteered. Then, students and the teacher provided suggestions on how the story retelling could be improved and highlighted the positive aspects of the volunteers' oral performance. Based on students' observations that the past tense was being employed inaccurately by some participants, an oral task focusing on past tense was performed.

In the final part of the class, students saw another Tom and Jerry cartoon (*Blue Cats Blue)* and were taken to the language lab to have the stories recorded. The participants discussed how the story could be retold and were advised to take advantage of time to effectively plan what to say. They were also told to monitor performance during output. After recording their narratives students were encouraged to evaluate their performance. Finally, participants were asked to complete the third learner diary of the instructional phase. As a homework assignment, students were requested to prepare a two-minute talk about their first kiss.

Fourth session

The fourth and final session of the instructional period took place on May 2nd, 2005. First, students presented the oral task previously assigned, and then were invited to sing along

and dance the song ‘Wake Up Call’. Next, the teacher and students reviewed the working definitions of three strategies taught and briefly discussed how to apply these strategies to L2 oral performance. Then, students listened to the video-based narratives recorded in the third session of the instructional period and were asked to evaluate whether they had noticed any differences in their L2 performance since their first recordings. After discussing the impact of the strategies of planning, monitoring and evaluation on their L2 speaking ability, participants were asked to play the strategy game (see appendix Q for the situations designed for the strategy game). The strategy game consisted of five different situations in which participants were requested to describe or to justify the reasons for employing strategies in a given language learning context. In addition, participants needed to provide specific strategies to help L2 learners overcome difficulties concerning L2 speaking tasks. Participants’ suggestions were presented (in groups) by means of transparencies with the aid of an overhead projector. Finally, the instructional phase of the study was evaluated through a questionnaire (Appendix J) and the last learner diary was completed by participants.

APPENDIX S – <u>Transcripts conventions and speech data from pre- to post-instructional phases</u>

: elongation

… unfinished or interrupted word or utterance

(laugh) laughter particle

(XXX) incomprehensible

“word” Portuguese word or coined word

WORD word enunciated out loud or at higher pitch

(.) short pause

(..) long pause

word non-existent word

word words in bold represent instances of inaccuracy

/word/ severely mispronounced word

(xxx) incomprehensible

✓ missing word or utterance

[( )] researcher comments

Participant 1

In the film the woman **which appear** in the ✓ **cat** one **with the which** she **to go** the cat **make** the a /**party**/ and the mouse **call** the woman **for** ✓ house the woman was ✓✓party "**haunting"** and in the "**findi"** she **call with** the /**party**/ she **(..)** The cat was The cat **to go** In the "**findi"** film **(..)** the woman **call (.)** party

Pre-instructional phase
Total time: 2:07:65
Number of unpruned words: 62
Unpruned words per minute: 29.14
Pruned words: 60
Pruned Words per minute pruned: 28.20
Accuracy: 24 errors
38.70 errors per hundred words
Complexity: 0 subordinate clause
0 subordinate clauses per hundred words
Weighted Lexical Density: Lexical items: 7.5
Grammatical items: 7.0
Total: 14.5
Percentage of weighted lexical items: 51.72

In the film shows **in** the film shows the histo …the story ✓ the cat (.) Tom and Jerry eh the mouse. Uh the cat (.) Tom liked the other cat but ✓ other cat **not liked the** Tom Tom **give** the present **for** ✓ other cat but not ✓ other **not liked** Uh (.) So so ✓ cat Tom (.) painted ✓ other cat then she ✓ liked like **her** (..) Uh (xxx) **the** Tom gave (.) uh the mouse to **she** but she **not liked** She liked the other cat So **the** Tom painted the other cat (.) The cat ✓ very uh very funny very ✓ (.) the presentation In the "fain" in the "**findi**" the cat eh gave the mouse uh and **good** because the mouse uh "**pegou**" the clothes "**do**" **the** Tom The "**faind**" **the** Tom (..) not, **not** "ficou", "**ficou**" with ✓ other cat

Post-instructional phase:
Total time: 3:32:78
Number of words: 122
Words per minute: 34.40

Speech rate pruned: 113
Words per minute: 31.86
Accuracy: 32 errors
26.22 errors per hundred words
Complexity: 5 subordinate clauses
0.81 subordinate per/hundred words
Weighted Lexical Density: Lexical items: 11.5
Grammatical items: 8.0
Total: 19.5
Percentage of weighted lexical items: 58.97

Participant 2

Well I ✓ talk about the **history and** Tom and Jerry Tom **live** in the house with **your** woman and **the** Saturday night the woman went ✓ a party and Tom uhh started ✓ **your** house uhh **(..)** uhh so Tom is very happy because he started and **too** and **your** woman **don't** say ✓ about it Tom is **sleep yet** in in **Tom** house and and Tom **house** called **your** friends that **come** and **start** the party and they are very they **was** very **each** and there was music and so there **are very** noise in the in the in the house **sleeping** Jerry the mouse too so Jerry wanted ✓ sleep but there was **very** noise there was **very** noise and Jerry **want** to talk with Tom and uh because there was **very** noise Tom **don't listened** Jerry and and called **with** Jerry so Jerry is going for Jerry cried uh broke the **sound** and **crowded** and got the woman that **don't** stop the mouse Jerry is very sad so Jerry have have **have a** idea **she** telephone telephoned that the woman the woman listen listened **listen** the music in your in **his** house she (.) she was very **got** so she the woman **with your** house and ***fighted*** with Tom So Jerry **attend** ***tented*** that it is **sleep** but the woman listened the music too So Jerry **with** so ✓ can find that ***sleeped*** don't have **don't** have ✓chance

Pre-instructional phase:
Total time: 4:40:83
Number of words: 227
Words per minute: 48.49
Speech rate pruned: 213
Words per minute: 45.50
Accuracy: 53 errors
Errors per hundred words: 23.34 per/ hundred words
Complexity: 5 subordinate clauses
2.20 subordinate per/hundred words
Weighted Lexical density: Lexical items: 31.0

Grammatical items: 15.0
Total: 46
Percentage of weighted lexical items: 67.39

I **see** the cartoon about Tom and Jerry Tom is a cat and Jerry is a mouse Tom uh loved the female cat and Tom wanted a present **of** uh her but the present uh was **a** Jerry and Jerry doesn't like it the female cat **don't** like the present uh (.) so Tom was very sad Tom uh said **say** that ✓ **feminine** cat listened the music so Tom has **a** idea Tom **wear** the clothes uh /**secret**/ and when Tom uh wear wore **with** the cat feminine the cat **feminine** loved Tom They danced a lot (.) Tom is very happy but Jerry wear but Jerry wanted dancing too but Tom uh **don't** want ✓ leave So Tom **fight** with Jerry (laugh) and Jerry uh **fight** with Tom too But Jerry uh (.) Jerry **lose** the fight Jerry (.) **was** the ✓clothes of Tom and Jerry (laugh) and Jerry and uh was very happy and Tom no (laugh) Tom is very sad because Jerry **was** the clothes and was and his **get feminine** The **finish history**

Post-instructional phase:
Total time: 3:00:80
Number of words: 158
Words per minute: 52.43
Speech rate pruned: 156
Words per minute: 51.76
Accuracy: 23 errors
Errors per hundred words: 14.55 per/ hundred words
Complexity: 5 subordinate
3.16 subordinate per/hundred words

Weighted Lexical Density: Lexical items: 25.5
Grammatical items: 14.0
Total: 39.5
Percentage of weighted lexical items: 64.55

Participant 3

I ✓ **go** to talk about the cartoon **the** Tom and Jerry the woman went **at** the party **his** cat **invite** the other cat for the party in a house He **is** made **the many** mess he made **very** noise "**festa"** The party is very **noise** (.) Jerry is the mouse ✓ was very nervous because because the party is very (..) very **noise** so the mouse called **for** woman she **is come** back **the** house and finished the party the party finished the party the cats

Pre-instructional phase
Total time: 1:29:74
Number of words: 82
Words per minute: 54.82
Speech rate pruned: 78
Words per minute: 52.15
Number of errors: 18
Speech rate pruned:
Accuracy: 21.95 errors per hundred words
Complexity: 1 subordinate
1.21 subordinate per/hundred words
Weighted Lexical Density: Lexical items: 14
Grammatical items: 13
Total: 27
Percentage of weighted lexical items: 51.85

Hello I ✓talk about the cartoon Tom and Jerry (.)Tom was in love (laugh) He **gived** Jerry **from** his girlfriend because Jerry is a mouse But but his friend don't like Je **don't** like ✓present (laugh) (..) So so she don't like (laugh) doesn't like Tom (..) Tom **make a** clothes uh a suit green and yellow so his girlfriend **went** in love because Tom **went** very handsome (laugh)

Post-instructional phase:
Total time: 1:19:73
Number of words: 61
Words per minute: 45.90
Speech rate pruned: 59
Words per minute: 44.39
Number of errors: 9
Accuracy: 14.75 errors per hundred words
Complexity: 2 subordinate clauses
1.21 subordinate per/hundred words
Weighted Lexical Density: Lexical items: 17.5

Grammatical items: 11.0
Total: 28.5
Percentage of weighted lexical items: 61.40

Participant 4

The story shows a **women go** out ✓ her house to go ✓ a party and **have** ✓ cat **call** his friends to give a party too but **the** Jerry the house the wife the party cause he **want** to sleep and he **don't** get to sleep with the noise so Jerry decided to **(..)** come over the **party of** Tom but **the** Jerry **don't** like this evening **(..)** Tom and his friends go on dancing playing **making** ✓ fight with the mouse so Jerry decided to call **to** the **women** to say **the** her cat is doing a party the **women go** back to ✓ home and **(..)** put ✓ out the cat in the street so **the** Jerry so **the** Jerry can't sleep because the **women make** noise too finished

Pre-instructional phase:
Total time: 2:35:89
Number of words: 127
Words per minute: 48.88
Speech rate pruned: 124
Words per minute: 47.72
Number of errors: 25
Accuracy: 19.68 errors per hundred words
Complexity: subordinate 4
3.14 subordinate per/hundred words
Lexical density: Lexical items: 28.5
Grammatical items: 13.5
Total: 42
Percentage of weighted lexical items: 67.85

Ok the cartoon is about Tom and Jerry the title of the story is the zoot cat in the beginning of the story Tom was preparing ✓ to go out He wanted to go eh ✓ the house of the female cat and he wanted to give a gift **for** her a gift ✓Tom took Jerry (.) and when Tom arrived there he gave the gif… the gift to her and he tried to call attention **of** her but she doesn't she didn't like the (.) things that Tom made and she didn't like the gif… the gift that Tom gave to her so she (..) she put out the gift and she probably said **horror** things to Tom Tom was very sad with the cat and Jerry said bad things to Tom too and Tom was very angry with Jerry but Tom didn't give up so he had an idea he decided to **wore a** clothes like a (.) a singer a famous singer to attract the female cat and he was **scaring** but Jerry couldn't see Tom happy so Jerry decided to **put** fire on **the** feet **of** Tom And Tom was surprised because his feet **was** burning (.) eh Tom **run** (..) behind the (..), **behind** Jerry (.) because he wanted to catch Jerry but he didn't get because Jerry got (.) to escape and in the end Tom was bad because **her** beautiful clothes **was** very small and Jerry wore the clothes that **was of** Tom

Post-instructional
Total time: 4:18:28
Number of words: 237
Words per minute: 55.05
Speech rate pruned: 236
Words per minute: 54.82
Number of errors: 19
Accuracy: 8.01 errors per hundred words
Complexity: subordinate 7
2.95 subordinate per/hundred words
Weighted lexical density: Lexical items: 46.5
Grammatical items: 17.0
Total: 63.5
Percentage of weighted lexical items: 73.22

Participant 5

Tom and Jerry the woman lived ✓ the house and Tom invited **your** friend for a party Jerry was sleeping and **don't** like the party but but the mouse and Jerry called **for** a woman she. (..) she (..) she went **for** ✓ house and (..) and (..) so Tom ✓ **your** friend she (.) the woman ( ) the woman she **turn** and **find** ✓ and Jerry **don't** sleep too

Pre-instructional:
Total time: 1:45:21
Number of words: 60
Words per minute: 34.21
Speech pruned: 54
Words per minute: 30.79
Number of errors: 12 errors
Accuracy: 20.00 errors per hundred words
Complexity:0
Weighted lexical density: Lexical items: 14.0
Grammatical items: 4.5
Total: 18.5
Percentage of weighted lexical items: 75.67

Tom knew the cat because ✓✓ very beautiful then ✓ bought **very** presents flowers and (..) and flowers (.) Tom was **very** in love uh to **to** the cat but she didn't like **his** (.) Tom went uh to home **to** home **his** uh to **dancing** to play ✓piano and ✓ was (.) very happy but Jerry didn't like and begin and **begin** ✓ "**atrapalhar"** the dancing the party the (.) and Tom he's in love ✓ the cat (.) and then Tom **"fez" "usou"** (.) uh (.) **a** short (.) **"roupa"** very beautiful and the cat ✓ in love ✓ Tom finally Jerry didn't like and Tom was dancing with the cat (.) and "**atrapalhou**" the dancing the dancing and Tom was very nervous with Jerry and (.) "**bateu**" in Jerry but Jerry **wear** (.)"**a roupa**" and Tom and Jerry **was** very happy

Post-instructional:
Total time: 4:09:85
Number of words: 122
Words per minute: 22.19
Speech rate pruned: 116
Words per minute: 21.10
Number of errors: 27 errors
Accuracy: 22.13 errors per hundred words
Complexity: 2 subordinate
1.63 subordinate per/hundred words
Weighted lexical density: Lexical items: 18
Grammatical items: 7.5
Total: 25.5
Percentage of weighted lexical items: 70.58

***Participant* 6**

Once a upon a time ✓✓ a cat that lived with a woman his name **he** was Tom uh Tom was waiting the woman to go out because he **it** because it wanted to **do** a party uh (.) the woman put ***putted*** her shoes and **go** out Tom invited his friends for a party uh uh three cats uhh wanted went three cats went for a party uh but in the house there is a cat ✓ a mouse uh **doing** ✓ party uh the cat uh **dancing** and **the**

singer uh uh (..). the mouse **don't** like ✓ party and it **go** out ✓ his (.) his house and it **finished with** the party uh the cat was very furious and the they and they wanted to catch the mouse uh they (.) **run** (..) but the mouse to escaped escaped uh (..) they put the mouse in the window and the cat (..) uh (..) and the cat **sing** and **dance**.(..) uh the mouse escaped and **the phone** called **for** the woman (.) the woman (.) **go to** back ✓the house and the (..) uhuh (..) and **to** look and the and **the** saw the cat uh

Pre-instructional
Total time: 4:57:09
Number of words: 166
Words per minute: 33.52
Speech rate pruned: 154
Words per minute: 31.10
Number of errors: 29 errors
Accuracy: 17.46 errors per hundred words
Complexity: 4 subordinate
2.4 subordinate per/hundred words
Weighted lexical density: Lexical items: 28.0
Grammatical items: 12.5
Total: 40.5
Percentage of weighted lexical items: 69.13

The cartoon was about Tom and Jerry so Tom put Jerry in the box and Jerry was a present for a beautiful cat so Tom uh Tom gave uh the present **for** the cat in the box ✓was Jerry uh Tom danced too and sang but the cat the beautiful cat didn't like uh because uh he didn't like **the** Jerry and didn't like uh **the** Tom **to** dance didn't like uh (.) the beautiful cat didn't like to see Tom **danced** and **sang** so the beautiful cat had a fight with Tom uh Jerry was very happy because the beautiful cat was uh had a fight with Tom with Tom so uh Tom discovered that the beautiful cat liked uh of the **of** the singer and **the** Jerry uh so I'm sorry Tom **prepared** that he was the singer so he wore the clothes and went in the **in** the house where **lived** the beautiful cat [(breathe)] so when Tom **lived in** the house the beautiful cat was very happy because she think she thought that Tom was a singer so they was they were **danced** a lot of a lot **of,** and Jerry was very furious because he he kno… he **know** that Tom was (.) that Tom wasn't the singer so uh Jerry, uh Jerry started to fight with Tom and **the** Jerry put Tom in the window and Tom (.) uh [(breathe)] Tom (.) **followed** in the in the water and his clothes was **was little** Jerry so Jerry put Jerry wore the clothes because they ar… they **was** very **little** so Jerry wore the clothes and the and the cartoon finished

Post-instructional:
Total time: 4:18:97
Number of words: 265
Words per minute: 61.39
Speech rate pruned: 252
Words per minute: 58.38
Number of errors: 22 errors
Accuracy: 8.30 errors per hundred words
Complexity: Subordinate 12
4.52 subordinate per/hundred words
Weighted Lexical density: Lexical items: 27.5
Grammatical items: 14.5
Total: 42
Percentage of weighted lexical items: 65.47

Participant 7

The **history** speak **speak** uh✓ the cartoon Tom and Jerry and Tom uh (.) Tom **to take** with **your** wife **housewife don't** stay in in **your** house and live, **live** (..) ✓ **one** party **for** his friends uh ✓(..) cat too

uh (..) the mouse Jerry that **like** ✓ party because what because **what** uh ***sleeped*** and the two animals are furious [(laughs)] but the party **not finished**(..) the party (..) "**continua" for** all night uh(.) and Jerry **not *sleeped*** and sorry and Jerry can't ***sleeped*** **for** night unh

Pre-instructional:
Total time: 2:29:31
Number of words: 79
Words per minute: 31.74
Speech rate pruned: 74
Words per minute: 29.73
Errors: 26
Accuracy: 32.91 errors per hundred words
Complexity: subordinate 0
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 20
Grammatical items: 12.5
Total: 32.5
Percentage of weighted lexical items: 61.53

The cartoon **to tell** the **history** uh that Tom uh **wear what** … to give ✓ his girlfriend (.) Tom uh **to give** (.) Jerry to get uh (.) but don't uh, but **don't** (..) **to** give uh (..) ✓ cat [(laugh)] so Tom uh Tom clothes **the** Tom uh (..) but Tom dresses clo… new clothes **for** to get ✓✓ uh (.) but so so they they **dancing** a lot Tom and the cat but Jerry Jerry **to try** uh (..) to leave uh (.) and Tom and Tom uh (.) **don't to** give his cat uh (..) ✓ the **finish** Jerry uh Jerry **to** get ✓ cat

Post-instructional
Total time: 3:19:57
Number of words: 91
Words per minute: 27.35
Speech rate pruned: 80
Words per minute: 24.05
Errors: 24
Accuracy: 26.37 errors per hundred words
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 14.5
Grammatical items: 8.5
Total: 23
Percentage of weighted lexical items: 63.04

<u>Participant 8</u>

The **history** of Tom and Jerry Tom made **of** party but Jerry **don't** like it Tom made **of** party and **to** invited many fri… many **yours** friends Jerry **don't** like it because the party **have many rise** music and Jerry don't **don't** sleep in the **finish** the **matron return at** home and Tom is **spell of** the party and the house with **yours** friends in the **finish** Jerry went to sleep and but **don't made** because the music of **matron don't leave** he **sleep**

Pre-instructional phase:
Total time: 1:23:02
Number of words: 84
Words per minute: 60.70

Speech rate pruned: 83
Words per minute: 59.98
Errors: 25
Accuracy: 29.76 errors per hundred words
Complexity: 2 subordinate
2.38 subordinate per/hundred words
Weighted lexical density: Lexical items: 15.5
Grammatical items: 8.5
Total: 24
Percentage of weighted lexical items: 64.58

Tom knew a cat Tom **give** a present for **she** Tom **give** Jerry The cat loved Jerry and Jerry loved the cat Tom doesn't like it (.) Tom loved the cat too (.) Tom dressed **a** clothes (..) to **conquest** the cat but Jerry **went** who **conquest** the cat because the clothes ***shirinked*** Tom doesn't like it The cat was very beautiful so Tom loved the cat (..) uh (.) the cat is nice is very beautiful is (..) intelligent so Tom played the guitar for **she** Tom sang for **she** Tom **give** presents for **she** But **in** the **finish** Jerry **when** who **conquest she**
Post-instructional:
Total time: 2:58:04
Number of words: 97
Words per minute: 32.68
Speech rate pruned: 97
Words per minute: 32.68
Errors: 17
Accuracy: 17.52 errors per hundred words
Complexity: 3 subordinate
3.09 subordinate per/hundred words
Weighted lexical density: Lexical items: 19.0
Grammatical items: 8.5
Total: 27.5
Percentage of weighted lexical items: 69.09

Participant 9

So I watched the cartoon it was a story the name was uh Saturday evening Fuss so sometimes in this kind of cartoons the cat and the mouse aren't friends yes in this really this time they are in the beginning of the scene there was a woman painting her nails and uhh preparing she was preparing herself to go out yes when the phone *rang* and there was a boy inviting her to go out so she was very **exciting** and she decided to go but the the mouse the cat was waiting her to go out yes to **went** out to make a party a kind of mess yes because he didn't make a party and when the woman went out the cat showed in a paper in a window a piece of paper was it was written ok to start the party and there were a lot of cats they started to **dancing** and to listen to music so loud and they started to play the piano and to make a lot of noise when the mouse the little mouse was in his bedroom in his little bedroom yes and the mouse was trying to sleep but she couldn't because the noise was so loud when the mouse decided to talk with the the cat but the cat didn't mind the cat continued **start** making noise he they and their friends continued they didn't mind and uh when the little mouse poor little mouse yes she couldn't (.) make that noise and uh the mouse decided to call to call her to call the woman and uh he told her what was happening and that uhh in that hour she decided immediately to go to her house when she (.) was there she was very very surprised and she's very angry with the cat And uh

finally yes the little mouse was sleepy but and the noise start started the noise started poor little mouse yes he couldn't he couldn't sleep that night he was very angry with the cat with the woman with the friends and there was a very ***embarrassed*** situation (.) but the the cat only want wanted to make noise and to make a mess poor woman yes [(laugh)] so I it was very interesting and it was very funny yes because sometimes is is really **stressed** but sometimes ✓ is funny to disturb someone in this case the little mouse was very very angry but (.) everything was solved it was nice

Pre-instructional
Total time: 4:53:73
Number of words: 405
Words per minute: 82.72
Speech rate pruned: 399
Words per minute: 81.50
Errors: 7
Accuracy: 1.72 errors per hundred words
Complexity: 11 subordinate
2.71 subordinate per/hundred words
Weighted lexical density: Lexical items: 66.0
Grammatical items: 18.0
Total: 84
Percentage of weighted lexical items: 78.57

I'll tell a story about a cartoon a Tom and Jerry cartoon the name of the story was the Zoot cat in the beginning of the carton Tom and Jerry were talking and but Tom wanted to to give to give a present to a very charming cat and Tom put Jerry in a jewelry box and make a like a lace and Tom put the present near her her door so he knocked ✓ the door and went out and when she opened the door she a saw a present but I don't know why she didn't like it because he started to say so many things to Tom and he pointed **her** finger and started to talk out loud I think and uh she didn't like the present so Tom was a very stubborn animal [(laugh)] because he wanted to try again so Tom took eh a piece of hammock and made a suit and **a** very beautiful **trouser** and took some flowers I don't know if he took some flowers I think I'm creating now [(laugh)] and uh Tom knocked ✓ the door again but now when she looked ✓ him she was very surprised and she was very charming and she liked it a lot they started to dance they started to have fun and Tom Jerry and the cat and ✓ female cat they were having fun but Jerry didn't like Jerry took a banana and put it on the floor and Tom was dancing with her and uh of course with the banana Tom slipped and uh (laugh) they started to to run and they started Tom and Jerry Jerry started to run and started to (.) to make a mess in her house and uh Jerry put John in a window put Tom in a window and uh took his clothes and wore his clothes and To… Jerry was very charming was very beautiful oh… no was very handsome yes was very handsome because he didn't like about the the Jerry about **the** Tom he didn't like he wanted to to be charming and to be so beautiful and Tom poor Tom (laugh) because Tom (.) didn't didn't "**conquist**" her yes because of this and Jerry was very happy and Jerry was very happy and Jerry almost all the time Jerry makes a mess Jerry almost always makes some confusion something like that but ✓ was a very nice cartoon It was very funny I think it was nice it was cool that's all

Post-instructional phase
Total time: 4:11:80
Number of words: 403
Words per minute: 96.02
Speech rate pruned: 390
Words per minute: 92.93
Errors: 6
Accuracy: 1.48 errors per hundred words

Complexity: 10 subordinate
2.48 subordinate per/hundred words
Weighted lexical density: Lexical items: 69.0
Grammatical items: 20.5
Total: 89.5
Percentage of weighted lexical items: 77.09

Participant 10

Right the **"reit"** prepared no no the cat prepared a party for **your** friends the cat but he is not uh "**com" the her** the **"reit"** so the **"reit"** was **think** because he went to uhhh (..) in the party in the party the cat uhhh uhh **of** the **very** confusion because the **"reit"** went **they in** the party uh but the cat uh the cat the cat "**forçou"** the **"reit"** in the house so uhuhuh "**eram"** the cat and one **"reit"** one **"reit"** and the party **is not** "**aconteceu"** the party **not** "**aconteceu"** [(laugh)]
Pre-instructional:
Total time: 2:07: 54
Number of words: 85
Words per minute: 39.98
Speech rate pruned: 77
Words per minute: 36.22
Errors: 23
Accuracy: 27.05 errors per hundred words
Complexity: 0 subordinate
1.17 subordinate per/hundred words
Weighted lexical density: Lexical items: 9.0
Grammatical items: 12.0
Total: 21
Percentage of weighted lexical items: 42.85

Tom is in love **by** ✓ beautiful cat it **give your** one present **for** the cat he **give** Jerry his friend ✓ mouse the cat is not good and returned [(laugh)] **your** present (..) the cat [(laugh)] is beautiful so Tom so Tom **wearing** the clo… clothes **this is** beautiful clothes (..) the cat "**ai meu Deus do céu"** (..) the cat he uh goo…**gostou"** the cat **good** the **your** clothes **the** Tom this is to uh **dancing** and **stays** very happy Tom argued with ✓ mouse the cat '***falled***' in ✓ aquarium and his clothes **reduced** Jerry **put** the clothes and he **stayed** beautiful
Post-instructional phase:
Total time: 2:14: 19
Number of words: 95
Words per minute: 42.47
Pruned: 93
Words per minute: 41.58
Errors: 28
Accuracy: 29.47 errors per hundred words
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 19.0
Grammatical items: 10.5
Total: 29.5
Percentage of weighted lexical items: 64.40

Participant 11

The cat (..) the cat and his friends made (.) made a party but the mouse don't **get** ✓ sleep because her **her** is **very** "**barulho sei lá"** the mouse call (.) **call for misses** and she answered and she **make** a party too

Pre-instructional
Total time: 00:49:38
Number of words: 40
Words per minute: 48,60
Speech rate pruned: 35
Words per minute: 42.52
Errors: 11 errors
Accuracy: 27.50 per hundred words
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 12.0
Grammatical items: 6.0
Total: 18
Percentage of weighted lexical items: 66.66

The cartoon is about Tom and Jerry Tom (..) Tom wanted to date with ✓ girl she didn't want to date with him (.) Jerry was a present for ✓girl so Tom wore (.)Tom wore **a** beautiful clothes she liked it Tom and the cat danced a lot Jerry danced a lot No Jerry danced with Tom Jerry and Tom fought a lot finally the beautiful clothes (.) Tom (..) and (..) **the** Tom's beautiful clothes **stayed** small because they **was Jerry**

Post-instructional
Total time: 2:01:74
Number of words: 76
Words per minute: 37,46
Speech rate pruned: 72
Words per minute: 35.48
Errors: 7 errors
Accuracy: 9.21 errors per hundred words
Complexity: 1 subordinate
1.31 subordinate per/hundred words
Weighted lexical density: Lexical items: 14.0
Grammatical items: 9.0
Total: 23
Percentage of weighted lexical items: 60.86

Participant 12

He has the woman that can go (.) to ✓ party Tom ✓ (..) with **your** friends to go ✓**your** house that (..) **go** ✓ **your** party (.) **your** friends go and ✓ very **very** party Jerry **not** like because **it** party

Pre-instructional
Total time: 1:09.96
Number of words: 34
Words per minute: 29.15
Speech rate pruned: 33
Words per minute: 28.30

Accuracy: 44.11 errors per hundred words
Errors: 15
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 8.0
Grammatical items: 9.0
Total: 17
Percentage of weighted lexical items: 47.05

Tom **give** a present **for** ✓ beautiful **girl** cat but she **don't** accept Tom and **a** beautiful **girl** cat **very** dance and Jerry **to** dance with her (.) Tom **"e"** Jerry **fifty buy** ✓ beautiful **girl** cat and ✓ the **finish anything stay** with her
Post-instructional phase
Total time: 00:54:28
Number of words: 41
Words per minute: 45.32
Speech rate pruned: 41
Words per minute: 45.32
Accuracy: 43.90 errors per hundred words
Errors: 18
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 11.5
Grammatical items: 7.0
Total: 18.5
Percentage of weighted lexical items: 62.16

Participant 13
Well eh Saturday in the morning the woman (..) the woman the woman **go in** the party and Tom and Jerry **and** ✓ (..) the house Tom (.) **I like** music and Jerry (.) **I don't** like music but (.) because ✓ (..) "**importunate"** ✓ (..) eh in the party (.) uh with **your** (.) with the woman in the house
Pre-instructional phase
Total time: 01:57:88
Number of words: 46
Words per minute: 23.41
Speech rate pruned: 42
Words per minute: 21.37
Accuracy: 26.08 errors per hundred
Number of errors: 12
Total time: 01:57:88
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 7.5
Grammatical items: 7.0
Total: 14.5
Percentage of weighted lexical items: 51.72

Well Tom and Jerry Tom ✓ in love **for** ✓ little cat and he gave he gave Jerry **for** ✓ present to ✓ cat But eh (.) she loved **for** mouse (..) and **to** suddenly ✓ **start** to wear to **finish** the little cat to **loved for** mouse ok
Post-instructional
Total time: 00:44:19
Number of words: 41
Words per minute: 55.66
Speech rate pruned: 39
Words per minute: 52.95
Accuracy: 31.70 errors per hundred
Number of errors: 13
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 9.0
Grammatical items: 7.0
Total: 16
Percentage of weighted lexical items: 56.25

Participant 14
I watched this cartoon uh Tom and Jerry (.) I liked this cartoon because uh ✓ was funny (..). this cartoon is very interesting to **child** (..). I don't **to** remember this cartoon.
Pre-instructional phase
Total time: 01:12:87
Number of words: 27
Words per minute: 22,23
Speech rate pruned: 27
Words per minute: 22.23
Accuracy: 3 errors
11.11 errors per hundred words
Complexity: 1 subordinate
subordinate per/hundred words
Weighted lexical density: Lexical items: 11.5
Grammatical items: 4.0
Total: 15.5
Percentage of weighted lexical items: 74.19

Good evening now I **watch a** cartoon zoot cats with Tom and Jerry Tom is a cat and Jerry is a mouse (.) this cartoon is very funny.(..) [(pause: 00:49:82)] this cartoon is very funny because **there** very funny ✓ about **were lovely for** a **woman** cat Tom played music for **a woman** cat because uh this cat is was lovely cat **her** [(laugh)]
Post-instructional:
Total time: 01:36:90
Number of words: 57
Words per minute: 35,29
Speech rate pruned: 48
Words per minute: 29.72
Accuracy: 11 errors
19.28 errors per hundred words

Complexity: 1 subordinate
1.75 subordinate per/hundred words
Weighted lexical density: Lexical items: 13.5
Grammatical items: 6.5
Total: 20.0
Percentage of weighted lexical items: 67.50

Participant 15

Well it's a short story from Tom and Jerry well uh the owner **of** Tom received a call and went out to dance when she went away Tom uh invited his friends to a party at his **home** and around four cats went to the party to **the** Tom's party they started to to play ✓a lot of things started to play with the disk player and one of the cats **were** playing with glasses another was **were** playing the piano making a lot of noise you know and Jerry was trying to sleep but the noise was pissing him off so he tried to talk with the with Tom but Tom started to make more noise so Jerry **start** to (.) to make something for the cats ✓ stop playing stop making the noise and he broke the disk player he closed the piano and and he put the cat **there** was playing with the glasses uh into I don't know the name but he put him there so the cat started to try ✓ catch Jerry and he hides himself into his *hole* in hole in the wall but they started to make noise again Jerry went out his hole and the cats started ✓run and tried to catch him so they catch him and putted him put him in some kind of line in the window and he was Jerry was uh wrapped into the line of the window and he went to the house and called **to** the owner **of** Tom you know the (.) the owner of the house and she **run** away from the party where she was dancing and **go** to her home and found Jerry and the other cats making a lot of noise and putted him putted his, they, them, sorry put them **off** the home the house and Jerry was very very happy with this and went to this hole in the wall and tried to sleep again he was lying in bed and the owner of the house started to listen music [(laugh)] and Jerry could not sleep again ok that's it I don't know what to say I'm just waiting the five minutes (.) oh ok I think Tom was gray with some light parts in his body [(laugh)] and Jerry is brown [(laugh)] Tom is the cat and Jerry is a rat and Tom is always trying to catch Jerry oh well ok finished

Pre-instructional phase
Fluency: speech rate
Total time: 04:59:15
Number of words: 395
Words per minute: 79.22
Speech rate pruned: 391
Words per minute: 78.42
Accuracy: 13 errors
3.29 errors per hundred words
Complexity: 6 subordinate
1.51 subordinate per/hundred words
Weighted lexical density: Lexical items: 62.5
Grammatical items: 31.0
Total: 93.5
Percentage of weighted lexical items: 66.84

Well the this cartoon starts when Tom put puts Jerry in a little box **she give** him as a present to a female cat so uh he took his box and went to the cat's home and put a box with Jerry inside in front of the door the cat the female cat uh took the little box and when she was looking at Jerry Tom started to play I'm not sure but uh I think it was some kind of acoustic guitar and well let me see uh she didn't seem to like the she seemed to like the gift but uh I don't think she liked Tom maybe he was not so cute as she **wonder** to and so uh she threw away the box with Jerry and Tom decided to make new clothes and he **make** a hat too and went again to the door of the house and when she saw her him she

liked him and they started to dance he was **more** cute [(laugh)] I guess when he they were dancing Jerry came to the home and started to dance with her uh so Tom **get** angry and started to run trying to catch Jerry and Jerry started to do a lot of things with Tom right uh turned off I don't know if it's the right expres… expression but he **turned off** a cigarette in Tom's nose and put a fire **put** fire in his feet and I don't remember exactly but I don't remember how but so when they were fighting Tom fell in some kind of aquarium and his clothes became short very short and so they were so small so so so so small that Jerry could **use** it and Jerry took the clothes dressed **it** and started to dance with the female cat again ok that's it I'm tired

Post-instructional phase
Fluency: speech rate
Total time: 03:35:33
Number of words: 301
Unpruned words per minute: 83,87
Pruned words:301
Pruned words per minute: 83.37
Accuracy: 10 errors
3. 32 errors per hundred words
Complexity: 9 subordinate
2.99 subordinate per/hundred words
Weighted lexical density: Lexical items: 60.5
Grammatical items: 25.5
Total: 85.5
Percentage of weighted lexical items: 70.76

PARTICIPANT 16

Tom's mother eh went to a party and **lived** Tom and Jerry alone at home uh (.) Tom made a party to his friends they were very noisy and Jerry can cannot sleep with the with the noise so he called his mother and **say** to her that Tom has Tom made a party to his friends and she **get** home and **put** out all his friends and Tom (.) they stayed at home they stayed out of ✓ **home** (..).

Pre-instructional phase
Total time: 00:48:67
Number of words: 75
Words per minute: 92.45
Speech rate pruned: 73
Words per minute: 89.99
Accuracy: 6 errors
8.00 errors per hundred words
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 17.5
Grammatical items: 12.5
Total: 30
Percentage of weighted lexical items: 58.33

There was a beautiful lady in the neighborhood Tom gave Jerry as a gift… to to that beautiful lady he wanted to make uh her his girl his girlfriend so he gave a gift to her she loved Jerry but Tom didn't **won** her heart so he made **a** beautiful clothes and went to her house she loved him in **that** clothes he was really beautiful so Tom **is** very excited to stay with that beautiful lady

Post-instructional phase

Total time: 00:49:62
Number of words: 76
Words per minute: 91.89
Speech rate pruned: 74
Words per minure: 89.48
Accuracy: 4 errors
5.26 errors per hundred words
Complexity: 1 subordinate
1.31 subordinate per/hundred words
Weighted lexical density: Lexical items: 17.0
Grammatical items: 14.0
Total: 31
Percentage of weighted lexical items: 54.83

Participant 17

They **go out of** the house to go **at** the party and Tom and **the** Tom **invite** his friends to a party too the cats and his friends they ✓ ✓ party ✓ **stayed** very happy but but Jerry don't but the Jerry but Jerry can't sleep because of the noise so Jerry decided to finish **of** the **parties of** cats but they don't like

Pre-instructional phase
Total time: 00: 49:43
Number of words: 62
Words per minute: 75.25
Speech rate pruned: 61
Words per minute: 74.04
Errors: 13
Accuracy: 20.96 errors per hundred words
Complexity: 1 subordinate
1.61 subordinate per/hundred words
Weighted lexical density: Lexical items: 15.0
Grammatical items: 9.5
Total: 24.5
Percentage of weighted lexical items: 61.22

Tom was " ***balelisha*** " for to meet **for** meet a beautiful cat that it **love**. (..) and uh and put ✓put Jerry in a box for **for giving** (..) **of** present to the cat uh (..) but the beautiful cat don't want **don't** want Tom and he **discover** looking **for**✓window that she **love** ✓ other cat a singer a singer **of** radio so he decide he decide (..) so he **decide** to meet "**ela**" so they they dance sing and Tom they dance sing and play music together they are very happy but Jerry was but Jerry **make** everything to "**purturbed**" and /**destroy**/ and **stay** in Tom's place **and** with his clothes

Post-instructional phase:
Total time: 2: 28:37
Number of words: 105
Unpruned words per minute: 42.46
Pruned words: 96
Pruned words per minute: 38.82
Errors: 21

Accuracy: 20 errors per hundred words
Complexity: 3 subordinate
2.85 subordinate per/hundred words
Weighted lexical density: Lexical items: 23.5
Grammatical items: 12.0
Total: 35.5
Percentage of weighted lexical items: 66.19

Participant 18

Narrative the video uh narrative ✓Tom and Jerry the cartoon very **"interessante"** because **"count"** the confus… **confusions the** Tom and Jerry **animals** uh this is a cat and ✓ **rat** uh **"count"** this story the **one** the house with ✓beautiful beautiful wife uh she is **got** in the house and **your marriage** eh **go in** the party Tom and Jerry **to dancing** the house and too in the house **"fazem"** a beautiful **"fest"** In the "**confusions" very confusion** Uh Tom Tom **sleep** and Jerry **to get** one very **very** party in the house Tom **sleep** telephone **by telephone** to wife in the **"**fest**"** in the party she **go house** and with **"acaba"** "**com" "a**" party Tom **sleep** and very "**corped"** and Jerry **sleep** in the **"rua"** she is **to play** a piano **a** and Tom **want** to sleep because ✓ **can't** Tom sleep **not** very **very** uh this is a narrative ✓short narrative uh this is ✓ story **the** Tom and Jerry **animals** very very **beautifuls** and nervous nervous uh eh the (..) and the cartoon very **"interessante"** eh what the "**attentions"** in the **see**

Pre-instructional phase
Total time: 03:29:94
Number of words: 171
Words per minute: 48.87
Speech rate pruned : 165
Words per minute: 47.15
Accuracy: 54 errors
31.57 errors per hundred words
Complexity: 1 subordinate
0.58 subordinate per/hundred words
Weighted lexical density: Lexical items: 19.0
Grammatical items: 11.0
Total: 30.0
Percentage of weighted lexical items 63.33

Tom and Jerry Tom Tom **this is** dated uh one beautiful cat eh (**xxxxx**) (**xxxxx**) he to (.) he **to give** Jerry **and** present to **she** she the cat Tom and Jerry to "**eggmush**" and two and ✓ two orange clothes to she liked eh to liked she **to liked she**. (..) eh Tom on…eh and Tom **was one** orange clothes uh to she he to she **to she** uh **no to** give Jerry to be uh to be to be (..) **no to give be** us clothes **has** to be clot… and Jerry and Tom liked very much the beautiful cat uh in the **finish** uh the Jerry eh eh in the **finish** Jerry he, he com... "**content**" because **use** the clothes the clothes **with** Tom **used** (.) uh in the **finish** Jerry Jerry "**fica**" very very uh "**content"**

Post-instructional phase
Total time: 02:15:27
Number of words: 133
Words per minute: 58.99
Speech rate pruned: 122
Words per minute: 54.11
Accuracy: 33 errors
24.81 errors per hundred words

Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 11.5
Grammatical items: 9.5
Total: 21.0
Percentage of weighted lexical items: 54.76

Participant 19

Uh the woman uh went to the party party and **your** cat Jerry uh ✓ making uh making ✓party Tom made a big party Uh ✓ **go** ✓ sleep ***corridom*** **your** hug uh (.) went to **the your** bed Jerry **going** to **the your** bed he **make** (.) he **listening the** very very /**high**/ the music uh (..) he talked (.) they **very** liked they go to the

Pre-instructional phase:
Total time: 01:11:98
Number of words: 54

Words per minute: 45.01

Accuracy: 18 errors

Errors per hundred words: 33.33
Speech rate pruned: 51
Words per minute: 42.51
Complexity:0 subordinate
0 subordinate per/hundred words
Lexical density: Lexical items: 14.5
Grammatical items: 6.0
Total: 20.75
Percentage of weighted lexical items: 70.73

Tom and Jerry Jerry **have** a big **lose** but he don't but she **don't loved** for you **for he** uh (.) he **try** "***conquist***" **for she** she is a beautiful cat Uh (.) she go she went for she went to (.) house's cat ✓ **house cat** she uh (.) uh **she** Jerry (.) "***leved***" the present for **she** it is the mouse mouse Jerry the mouse Tom Tom [(breath)] (..). she don't love she **don't** love **for** uh (.) the present the present **the** Jerry uh Tom (..) uh (..) Jerry **don't** love the beautiful cat **don't** love Jerry **make** uh she **love mother** beautiful cat she's a big cat Jerry (..) **don't**

Post-instructional phase:
Total time: 03:08:07
Number of words: 94
Words per minute: 29.98
Speech rate pruned: 89
Words per minute: 28.39
Accuracy: 25 errors
Errors per hundred words: 26.59
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 11.5
Grammatical items: 7.0
Total: 18.5
Percentage of weighted lexical items: 62.16

Participant 20

The story was ✓ Tom and Jerry on on Saturday **on** evening Saturday there was a woman she **there** was in a telephone uh and she uh went out Tom **stayed in** home and he called his friends to a party in his home but uh Jerry also ✓ in in in ✓house then then (.) they they was listening a song and they they **was** much noise much noise and Jerry who was nervous because uh there **was much** noise and Jerry uh didn't **sleeping** because ✓this noise and he (.) he ✓ frightened with with **his** because uh because ✓ this this noise and the and **the** Jerry called the woman and the woman uh went out to **his** house and uh she ***putted*** **out** Tom and **the** Jerry was **sleep** but the woman started listening a song and she she started to do to **do much** noise and **the** Jerry didn't **slept**

Pre-instructional phase
Total time: 03:03:64
Number of words: 143
Words per minute: 46.72
Speech rate pruned: 128
Words per minute: 41.82
Accuracy: 25 errors
17.48 errors per hundred words
Complexity: 2 subordinate
1.39 subordinate per/hundred words
Weighted lexical density: Lexical items: 18.5
Grammatical items: 10.0
Total: 28.5
Percentage of weighted lexical items: 64.91

The **history** is ✓ Tom and Jerry Uh Tom gave a present to a beautiful cat but he didn't see that Jerry was in the box Uh the beautiful cat didn't like the present and Tom **did a** clothes **a** beautiful uh he **did a** clothes and trousers The cat liked very much the beautiful clothes ✓ by Tom Jerry was nervous and Jerry start started to beat **in** Tom Tom uh Tom **the** clothes **by Tom** /**shrunked**/ and Jerry was wearing the clothes ✓ by Tom Jerry was wearing the clothes ✓ by Tom and Jerry was happy because of this **Finish**

Post-instructional phase
Total time: 01:38:00
Number of words: 98
Words per minute: 60
Speech rate pruned: 90
Words per minute: 55.10
Accuracy
Accuracy: 16 errors
16.32 errors per hundred words
Complexity: 1 subordinate
1.02 subordinate per/hundred words
Weighted lexical density: Lexical items: 17.5
Grammatical items: 9.5
Total: 27.0
Percentage of weighted lexical items: 64.81

Participant 21

The story ✓✓ **the** Tom and Jerry uh **the** Jerry **not** sleep because **the** ✓ too much ✓ then Jerry **to** called the **mister** ✓ the house to **finished** the party then ✓ called to sleep ***sleeped*** (..) **the** Jerry **not** sleep because **the** ✓ too much ✓ then **to** called **the** house to finish the **too much** then Jerry **to sleep**

Pre-instructional phase:
Total time: 01:05:63
Number of words: 53
Words per minute: 48.45
Speech rate pruned: 53
Words per minute: 48.45
Accuracy: 25 errors
47.16 errors per hundred words
Complexity: 0 subordinate
0 subordinate per/hundred words
Weighted lexical density: Lexical items: 8.0
Grammatical items: 4.0
Total: 12.0
Percentage of weighted lexical items: 66.66

The story ✓✓**the** cat and ✓ mouse Tom was attempting ✓ "**conquest**" the cat but **not obtained** because Jerry also **to** liked her (..) [(pause 0.24.28)] Tom was attempting ✓ **conquest** the cat but **not obtained** because Jerry also **to** liked her

Post-instructional phase
Total time: 0:52:59
Number of words: 37
Words per minute: 42.21
Speech rate pruned: 22
Words per minute: 25.09
Accuracy: 14 errors
37.83 errors per hundred words
Complexity: 1 subordinate
2.70 subordinate per/hundred words
Weighted lexical density: Lexical items: 6.0
Grammatical items: 3.5
Total: 9.5
Percentage of weighted lexical items: 63.15

***Participant* 22:**

I ✓ **go** ✓ a **history** of **the** Tom and Jerry (.) the cat **Tom** stayed alone in **it** house because because it **call** (xxx) ✓ was going **in** a party then the there Tom invited some friends to do a party in **it** house but the (.) mouse but the mouse Jerry **stayed** brave with ✓noise of the party then then he called **for** the woman when the woman arrives in her home she finished (.) with **a** party

Pre-instructional phase:
Total time: 01:32:49
Number of words: 73
Words per minute: 47.35
Speech rate pruned: 67
Words per minute: 43.46

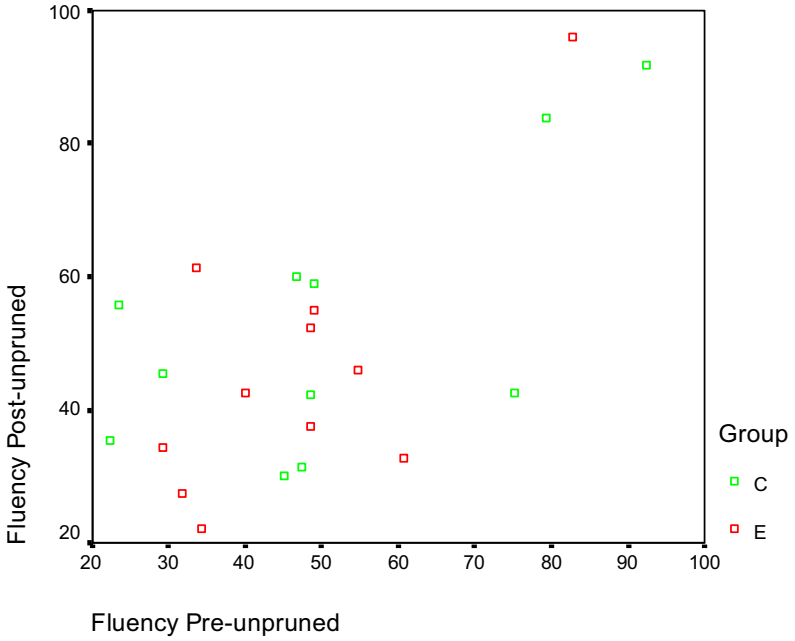
Accuracy: 15 errors
20.54 errors per hundred words
Complexity: subordinate 3
subordinate per/hundred words: 4.10
Weighted lexical density: Lexical items: 19.0
Grammatical items: 13.5
Total: 32.5
Percentage of weighted lexical items: 58.46

The **Tom** cat gave a mouse **of the** present for a beautiful cat but but she (..) but she (..) **trewded** (.) trewded **of** the present **off** then the **Tom** cat **toward** the book for her (.) ✓ the end the beautiful cat liked but (..) but the mouse (..) but the mouse "**molhou"** the coat and the (..) and the mouse **weard** the coat (..) the **Tom** cat was very very tri… "**triste"** (.) because the beautiful cat **don't** don't doesn't like **he**

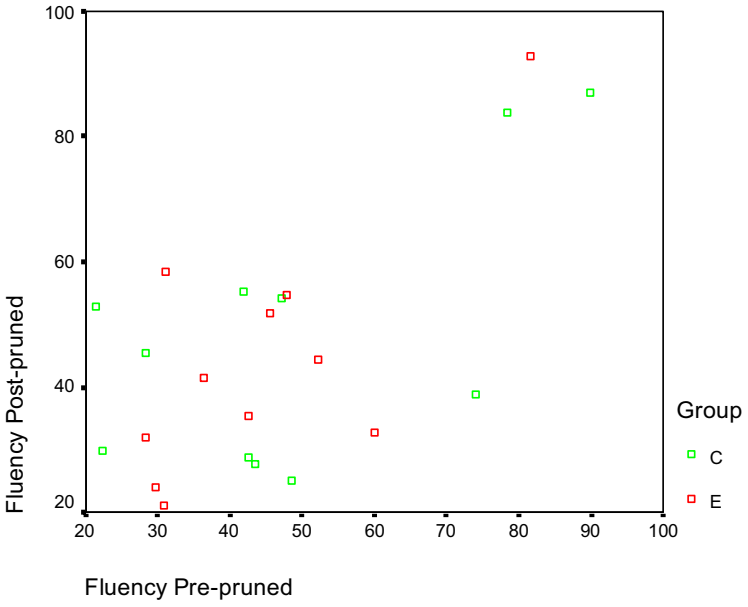
Post-instructional phase:
Total time: 2:20:94
Number of words:74
Words per minute: 31.50
Speech rate unpruned: 65
Words per minute: 27.67
Accuracy: 15 errors
20.27 errors per/hundred words
Complexity: 1 subordinate
1.35 subordinate per/hundred words
Lexical density: Lexical items: 9.0
Grammatical items: 9.0
Total: 18
Percentage of weighted lexical items: 50.0

APPENDIX T - <u>Scatterplots of each of the L2 speaking measures under investigation (Pearson's correlational analysis)</u>:

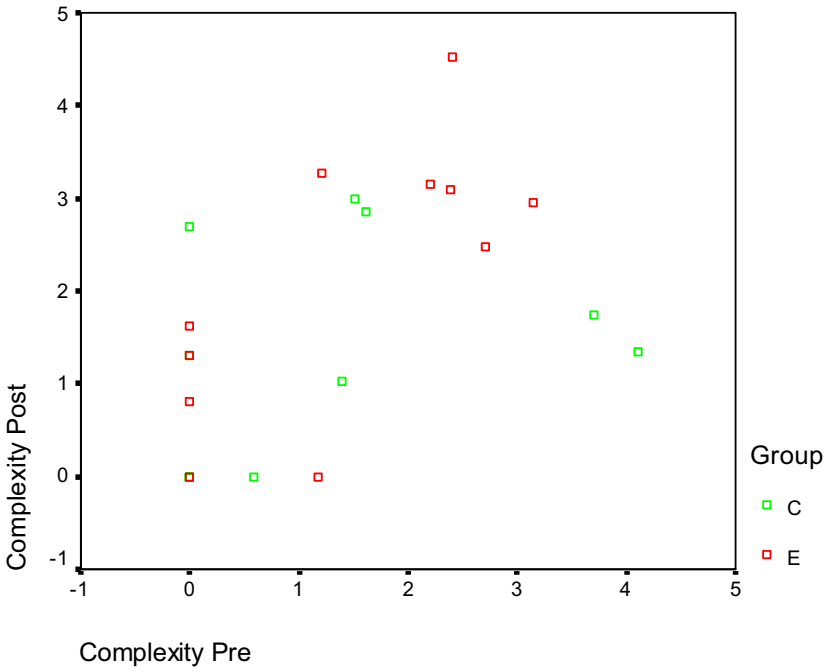
1) Fluency as measured by speech rate unpruned:



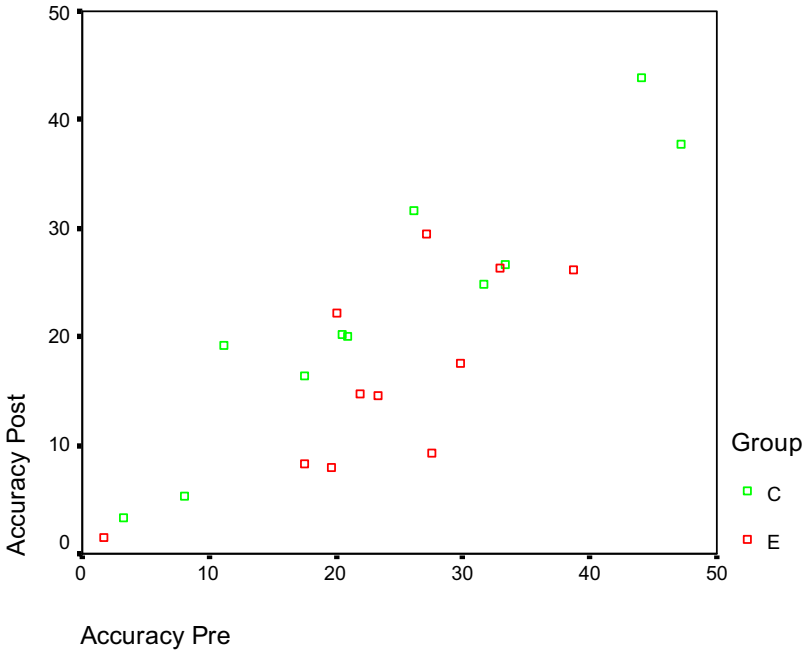
2) Fluency as measured by speech rate pruned:



3) Complexity:



4) <u>Accuracy:</u>



5) Weighted Lexical Density: