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CROSSLINGUISTIC INFLUENCES IN THE ACQUISITION OF ENGLISH AS A THIRD LANGUAGE: AN INVESTIGATION

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To my family, especially to my mother, father and to my husband.

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ABSTRACT

CROSSLINGUISTIC INFLUENCES IN THE ACQUISITION OF ENGLISH AS A THIRD LANGUAGE: AN INVESTIGATION

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UNIVERSIDADE FEDERAL DE SANTA CATARINA 2012

Supervising Professor: Dr. Mailce Borges Mota

Multilingualism is a growing phenomenon in the world (Jessner, 2006). The study of multilingualism, more specifically third language acquisition, is a new area of research which has gained much attention from researchers in the last decade. Researchers interested in studying language acquisition have focused on third, fourth or additional language acquisition. The focus of the present study is the acquisition of English as a third language. This study is particularly interested in crosslinguistic influences (CLI) in the process of acquisition of English as a third language as compared to the acquisition of English as a second language. More specifically, this study aims at analyzing the influence of the first and second languages in the acquisition of English as a third language. In the present study the acquisition of English as a third language by native speakers of Brazilian Portuguese who have already acquired a previous second language is compared to the acquisition of English as an L2, with the following objectives (1) to investigate the source language of transfer in the oral and written performance of learners of English as an L3, (2) to investigate how typological distance, order of acquisition, L2 status and L2 recency affect the production of written and oral narratives in English as an L3 by speakers of Brazilian Portuguese, (3) to investigate if previous knowledge of a second language helps in the learning of a new foreign language. Learners of English as a second and third language participated in this study. First, they had their proficiency in English measured. Next, participants filled out a biographical questionnaire, which contained questions about their second languages and also about their interest in learning English. After that, participants performed two narrative tasks, one oral and one written. Both narratives were analyzed with focus on CLI at the lexical

and syntactic levels. The results of this analysis showed that for the Brazilian context and for the participants who took part in the present study the biggest source of influence in the acquisition of English as a third language comes from their first language, Portuguese. The results also showed that concerning the factors which may interact with CLI the most important was order of acquisition, followed by typology, L2 recency and L2 status. As for the comparison between L2 and L3 learners of English the results of this study showed no significant advantage for L3 learners.

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RESUMO

A INFLUÊNCIA TRANSLINGUÍSTICA NA AQUISIÇÃO DO INGLÊS COMO TERCEIRA LÍNGUA: UMA INVESTIGAÇÃO

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UNIVERSIDADE FEDERAL DE SANTA CATARINA 2012

Orientadora: Professora Dra. Mailce Borges Mota

O multilinguismo é um fenômeno em ascensão (Jessner, 2006). O estudo do multilinguismo, mais especificamente da aquisição de terceira língua é uma nova área, a qual tem atraído a atenção de muitos pesquisadores na última década. O presente estudo tem como foco a aquisição do inglês como terceira língua, mais especificamente, a influência translinguística - da primeira e segunda línguas - nesse processo. No presente estudo, a aquisição do inglês como terceira língua por falantes nativos de Português Brasileiro que já haviam adquirido uma segunda língua é comparada à aquisição do inglês como segunda língua. Os objetivos do presente estudo foram: (1) investigar a língua de origem de transferência no desempenho oral e escrito de aprendizes de inglês como terceira língua; (2) investigar como a distância tipológica, ordem de aquisição, status da segunda língua e recentividade afetam a produção oral e escrita de narrativas em inglês como terceira língua por falantes de Português Brasileiro e (3) investigar se o conhecimento prévio de uma segunda língua ajuda na aprendizagem de uma nova língua estrangeira. Trinta e um estudantes de inglês como segunda e terceira línguas participaram deste estudo. Primeiro, eles tiveram sua proficiência em inglês avaliada. Em seguida, os participantes responderam a um questionário biográfico, o qual continha perguntas sobre as segundas línguas (espanhol, francês, italiano e alemão) e também sobre o interesse na aprendizagem do inglês. Os participantes, então, foram solicitados a produzir duas tarefas narrativas, uma oral e uma escrita, em inglês. Ambas as narrativas foram analisadas com foco em influências translinguísticas nos níveis lexical e sintático. O resultado da análise mostrou que, para o contexto brasileiro e para os participantes que fizeram parte do presente estudo, a maior influência na aquisição do inglês origina-se do Português. Os resultados relativos aos fatores que podem interagir com a influência translinguística também mostraram que o fator mais importante foi ordem de aquisição, seguido por tipologia, recentividade e status da segunda língua. Quanto à comparação entre estudantes de inglês como segunda ou terceira língua, os resultados mostraram que não houve vantagem para os aprendizes de inglês como terceira língua.

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CHAPTER I

INTRODUCTION

1.1 Preliminaries

Jessner (2006) states that multilingualism is a growing phenomenon in the world and a normal necessity for most people. The importance of the processes that underlie the acquisition of more than two languages has recently gained attention of researchers interested in language acquisition. According to Jessner multilingualism has to be considered as a normal phenomenon in the current days. Hammarberg (2001) also argues that multilingualism may be as frequent as pure monolingualism in the population of the world and perhaps it may be even more frequent. Hammarberg (2001) still claims that humans are polyglots¹ by nature and they should be taken as the norm. In a similar vein, Cook (2009) states that monolingualism should be considered "a widespread form of language deprivation" (p.57). His claim is based on the fact that when children are exposed to two or more languages, they acquire all of them, which constitutes the phenomenon of childhood simultaneous bilingualism. Cook (2009) claims that monolinguals speak only one language because their knowledge is restricted by the set of sentences they have heard or have been exposed to. In case they are exposed to more languages they will probably acquire them. For the reasons stated, Cook (2009) claims that monolingualism cannot be seen as the norm.

Due to the importance and status that multilingualism has acquired in the current world, research on language acquisition has enlarged its focus by concentrating not only on first or second language acquisition. Instead, many studies have focused on the acquisition of a third, fourth or additional language (Llama, Cardoso & Collins, 2007; Tremblay, 2006). In the present study, I am especially interested in investigating the acquisition of English as a third language as compared to the acquisition of English as a second language. The general context of investigation of the present study is the area of multilingualism, more specifically third language acquisition (TLA). According to Jessner (2006), the role of English as a lingua franca is one of the dominant reasons for multilingual settings today. She also posits that the spread of English world- wide has led to the investigation of the acquisition of English not only as a second language but also as a third language,

A polyglot is defined in his study as a person with knowledge of three or more languages.

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which is the main focus of the present study.

For the purposes of the present study, a third language is the language learned subsequently after the second, which is subsequently learned after the first or native language (Gass & Selinker, 2008). In the present study, I agree with the assumption that multilingualism has to be seen as the norm and not the exception, as already pointed out (Jessner, 2006; Hammarberg, 2001; Cook, 2009). I also acknowledge the importance of looking at the acquisition of English by students who already have two languages (bilinguals), instead of restricting the study of the acquisition of English to speakers of only one language (monolinguals), as has been the case of most research on the acquisition of English as a foreign language in Brazil.

Until the last decade, studies would not differentiate between second and third language acquisition. Instead, they considered second language as any language learned after the native (Leung, 2007). However, Leung states that recently, a number of researchers have started to look seriously at the phenomenon of TLA/multilingualism as a separate domain of inquiry. For this reason, TLA is considered a very young field. Despite being so recent, the focus on the acquisition of a third language has gained much attention from researchers. Cenoz (2008) states that some of the approaches to the study of TLA are: early multilingualism, crosslinguistic influences (CLI) in TLA, age and TLA, and the effect of bilingualism on TLA. The present study approaches the acquisition of English as a third language by focusing on CLI. Cenoz (2008) also explains that the study of CLI looks at the acquisition of an additional language focusing on the interaction of the target language and the previous languages acquired. According to Jessner (2006), in the case of TLA, CLI will look at the interaction between L1 and L3 plus that between L2 and L3. Jessner (2006) also states that studies of CLI in the field of TLA have a greater importance than in studies of SLA, since in SLA there are two systems influencing each other and "in TLA there are two more relationships: the interaction between L1 and L3 plus that between L2 and L3" (p.21). In the present study the influence of the first and second languages in the acquisition of English as a third language is the main focus.

1.2. The present study

Having being raised in the city of Blumenau (Santa Catarina, Brazil), where there is a strong influence of the immigrant languages German and Italian, I became interested in investigating the influence of previous languages in the acquisition of English as a third language as compared to the acquisition of English as a second language. In the cities of Santa Catarina where this study took place Blumenau, Pomerode, Rodeio and Timbó, it is very common to have bilinguals who are speakers of Brazilian Portuguese and another immigrant language, such as German and Italian. When these bilinguals start to learn English, they are learning a third language. It is well demonstrated in the literature that background languages may influence subsequent language acquisition (Cenoz, 2001; De Angelis & Selinker, 2001; Ringbom, 2001; Dewaele, 2001; Ecke, 2001; Herwig, 2001; Fouser, 2001; Bayona, 2009; Chin, 2009; Flynn, 2009; Foote, 2009; Jaensch 2009; Jin, 2009; Ranong & Leung, 2009; Carvalho & Silva, 2006; Llama, Cardoso & Collins, 2007; Leung, 2005; Shooshtari, 2009; Bardel & Falk, 2007; Perales, Mayo & Liceras, 2009).

Some scholars have investigated TLA and have demonstrated that the acquisition of L3, L4 or additional languages differs from the acquisition of a second language mainly because of the influence from one language system into another, which is a more frequent process in multilinguals (Bardel & Falk, 2007; Carvalho & Silva, 2006; Leung, 2005; Maghsoudi, 2008; Melhorn, 2007; Tremblay, 2006; Hammarberg, 2001; Dewaele, 2001; Ecke, 2001; De Angelis & Selinker, 2001; Herwig, 2001). Gass & Selinker (2008) state that this new area of research third language acquisition, addresses quite interesting and more complex questions than those involved in second language acquisition (SLA), mainly because of the multiple languages involved in the process of TLA.

As third language acquisition is still a recent topic, there is no specific conclusion whether L1 or L2 have a more important role in the acquisition of an L3 (Vinnitskaya, Flynn & Foley, 2002; Tremblay, 2006; Bardel & Falk, 2007; Carvalho & Silva, 2006; Gibson, Hufeisen & Libben, 2001; Fouser 2001; Shooshtari, 2009; Ecke, 2001; Perales *et al*, 2009). In order to investigate the acquisition of English as a third language, by means of analyzing the role played by the L1 and L2 in this process, the present study recruited learners of English as a second and as a third language to participate. These participants were all native speakers of Brazilian Portuguese, which is a Romance language (Comrie, 2007). All participants were also learners of English, which is a Germanic language (Comrie, 2007). In the present study, the learners of English as a third language had either a Romance language as their L2 (Italian, Spanish and French) or a Germanic language (German).

In order to elicit data for this investigation, participants

performed two narrative tasks, one oral and one written. According to Kellerman (2001), narrative tasks have more ecological validity as a method of eliciting data because it is a more natural language activity. In the written narrative tasks, participants were required to write what they saw in a wordless picture story. In the oral narrative task, participants were asked to narrate the story of a film they had seen. Both narratives were analyzed with a focus on CLI at the lexical and syntactic levels. More specifically, the analysis of the two narratives aimed at answering the following research questions:

- 1. Is the L1 or the L2 the source of transfer in English as an L3?
- 2. How do typological distance, order of acquisition, L2 status and L2 recency affect the oral and written narratives produced in English as an L3 by speakers of Brazilian Portuguese?
- 3. Does previous knowledge of a second language help in the learning of a new foreign language?

1.3 Significance of the research

This study should bring new data concerning CLI to the field of TLA. Various studies (Cenoz, 2001; Gibson *et al*, 2001; Fouser 2001; Ecke, 2001; Ringbom, 2001; Herwig, 2001; De Angelis & Selinker, 2001; Vinnitskaya, Flynn & Foley, 2002; Tremblay, 2006; Carvalho & Silva, 2006; Bardel & Falk, 2007; Llama *et al*, 2007; Shooshtari, 2009; Perales *et al*, 2009; Jin, 2009; Ranong & Leung, 2009; Bayonna, 2009; Chin, 2009; Rothman & Amaro, 2010; Falk & Bardel, 2011; Foote, 2009; Montrul, Dias & Santos, 2011; Rothman, 2011) have found different results concerning the role played by the L1 and L2 in the acquisition of a third language. The results of the present study would contribute to this recent discussion on TLA.

According to the literature, there are many questions in the field of TLA which remain unanswered, such as whether the models of bilingualism can be applied to trilingualism (Llama *et al*, 2007) and whether the L1 has a privileged role in the acquisition of a third language (Shooshtari, 2009; Carvalho & Silva, 2006; Bardel & Falk 2007). The aim of the present study is to contribute to this literature with new data about the role of the L1 and L2 in TLA, especially for the Brazilian context.

1.4 Organization of the thesis

The present study is organized into five major chapters. Chapter I is the present chapter which contains the introduction of this study. Chapter II reviews important concepts for this study. The first section of Chapter II presents the definitions for TLA and multilingualism and it is divided in subsections which present the distinction between TLA and SLA, the definitions of first, second and third languages for the present study and information of the literature concerning the learning of an additional language by bilinguals and monolinguals. The second section of Chapter II presents the definitions for CLI and transfer, how these terms emerged and how they are currently used. It also presents the possibilities of transfer in TLA and the factors that may interact with CLI and linguistic transfer. The third section of Chapter II presents definitions for learners' errors and a brief explanation on the origins of the languages spoken by the participants of the present study. Finally, chapter II also reviews studies related to TLA and CLI.

Chapter III presents and justifies the method applied in the present study, it also presents the objectives, hypotheses and research questions for this study. Chapter III describes the two groups of participants of the present study, the material used for data collection (the proficiency test and the biographical questionnaire) and the tasks applied in the present study (the written and oral narrative tasks). It also presents the procedures for data collection and data analysis and the conclusions of the pilot study carried out before data collection.

Chapter IV describes and discusses the results of the analysis of the two narrative tasks applied to participants of the present study. First, the instances of CLI at the lexical level are presented and discussed. Next, the instances of CLI at the syntactic level are presented. In this chapter the grammatical errors made by participants in both tasks are also discussed. In the last part of chapter IV, a comparison of the results of the present study is made with those found in the literature. Finally, it provides answers to the research questions proposed. The last chapter, Chapter V, presents the conclusion of the present study by first summarizing the main findings of this study and the limitations of the study along with suggestions for further research. Chapter V also presents the pedagogical implications of this study.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents definitions for the concepts involved in this study and it reviews studies related to the area of third language acquisition. It is divided into four sections, which are further subdivided. The first section of this chapter (2.1) consists of the definitions of third language acquisition (TLA) and multilingualism, the main areas of the present study. This section is divided into three subsections which present, first, the difference between TLA and second language acquisition (SLA). Next, it presents the definitions of L1, L2 and L3 for the present study and also information from the literature concerning bilinguals and monolinguals as language learners. Section 2.2 presents the definitions of crosslinguistic influences (CLI) and transfer. This section is divided into five subsections, which present, first, the history of the terms CLI and transfer. Next, it presents the current definitions for both terms, the possibilities of transfer in TLA, factors that interact with CLI and, finally, linguistic transfer. Section 2.3 presents other concepts that are relevant for the present study, such as learners' errors and a brief explanation on the origins of the languages spoken by participants of the present study. Section 2.4 reviews studies in the area of TLA which focus on CLL

2.1 Third language acquisition and multilingualism

Third language acquisition and multilingualism are the newest areas of interest in research that derived from the SLA field (Jessner, 2006). In current days multilingualism is not a rare phenomenon. Instead, Jessner (2006) states that multilingualism should be seen as a growing phenomena which is necessary for international relations all over the world. Jessner (2006) adds that the world has faced new organizations where three main points are responsible for the multilingual settings in current world: "(1), the increasing mobility resulting in migratory movements, (2) the role of English as a lingua franca and (3) the presence of former colonial forces" (p.1).

Jessner (2006) defines multilingualism as a multifaceted construct and claims that its study has just begun. According to Jessner (2006), the term multilingualism has been recently used to refer to the acquisition of more than two languages and/or to the product of having acquired two or more languages (p.15). She also states that the term

multilingualism can be used to cover TLA and trilingualism. Jessner (2006) explains that TLA is the process of acquiring a third language and trilingualism is the product of having acquired the third language (p.14). In addition, Jessner (2006) claims that the term multilingualism cannot be used to cover bilingualism, since trilingualism and bilingualism are different processes. As to the differences considered by Jessner (2006) concerning bilingualism and trilingualism, she explains that the acquisition of a second language is already regarded as a complex phenomenon because it can be approached from psycholinguistic, sociolinguistic and educational perspectives. She argues that all the complexity involved in the SLA process is increased by the addition of the learning of a further language, which is the case of TLA.

Still regarding the complexity involved in TLA, Jessner (2006) explains that there are at least four possibilities concerning the order in which the languages can be acquired: "(1) the three languages can be acquired simultaneously, (2) the three languages can be learnt consecutively, (3) two languages are learnt simultaneously after the acquisition of the L1, (4) two languages are acquired simultaneously before learning the L3" (p.16). Jessner (2006) adds that, in TLA, the process of language acquisition can be interrupted by the process of learning another language and restarted again. She exemplifies the previous statement by the following example: L1→L2→L3→L2, that is the case of a person who interrupted the acquisition of an L2 to acquire the L3 and after, continued the process of acquiring the L2. Jessner (2006) still claims that this possibility of interruption and restarting can be applied to the three languages involved, which can make the process even more complex.

Jessner (2006) states that, in TLA, the influence of the individual factors in the process of learning several languages also increases. In her words, "the number of factors guiding language learning at the individual level is already enormous and their interplay very complex" (p.17). Jessner (2006) mentions individual factors that have already been investigated such as language aptitude, language anxiety, attitude and motivation, language learning strategies, self-confidence, metalinguistic awareness, motivational intensity, among others. Language aptitude is considered a valid predictor of the rate of language learning. It is also seen as a component which overlaps with intelligence (Jessner, 2006, p.64). Jessner (2006) defines metalinguistic awareness as "the ability to focus attention on language as an object in itself or to think abstractly about language and, consequently, to play with or manipulate language"

(p.42).

Jessner (2006) argues that the complexity involved in the multilingual subject is also evident in the terminology L1, L2 and L3, which are commonly used. She explains that in the case of SLA, the L1 is the dominant language and the L2 is the weaker language. In contrast, for the multilingual subject, the chronological order of acquisition may not be the same order of dominance among languages. For instance, one speakers' L3 may be dominant over the L2. However, this dominance can be affected by language exposure and this order of dominance among languages for the multilingual speaker can change over time. Still regarding the differences between the L3 and the L2 learner, Cenoz (2008) claims that the L3 learner is more experienced as a language learner, since he has developed more language learning strategies and metalinguistic awareness than the L2 learner. In addition, she claims that "the L3 learner has a larger linguistic repertoire at their disposal and can use this repertoire as a resource, either when they have limitations in the target language, or when they prefer to code- switch and code- mix to express their communication intent better" (p.222).

The spread of English worldwide also asks for some reconceptualization of the studies concerned with the acquisition of English. Jessner (2006, p.2) mentions that the spread of English can be seen in terms of three circles: (1) the inner circle: for those countries where English is the L1 for the majority of the population, but it also is in contact with other heritage or immigrant languages, (2) the outer circle: for those countries where English is a second language used at the institutional level as the result of colonization, and (3) the expanding circle: for those countries where English has no official status and is taught as a foreign language, which is the case of the present study. Jessner (2006) explains the growth of English as a third language. She exemplifies some of the cases where English is learned as a third language (p.3), as follows:

- (1) for Africans living in countries where French is widely used as a second language, and also for those children who live in African countries where English is widely used at the institutional level but who already speak two languages before they enter school;
- (2) for many speakers in other parts of the world such as Asia or the Pacific where a large number of languages are spoken but English is needed for wider communication;
- (3) for immigrants who have established themselves in countries where English is learned as a second language;
- (4) for immigrants who already spoke two languages before they

established themselves in English- speaking countries (the US, Australia, New Zealand, etc.);

- (5) for speakers in Hong Kong who already speak Cantonese and Mandarin;
- (6) for a growing number of Japanese who learn it after Japanese and Korean:
- (7) for children who are speakers of a heritage language and live in Spanish-Speaking South America or French-speaking Canada.

The context of the present study is exemplified in example 7 above. In Brazil, English is taught as a foreign language and has no official status. Nevertheless, the learning of English is very important when international communication is concerned. Brazil is a big country with many differences among its inhabitants and these differences also concern the diversity of language knowledge of its population (Cavalcanti, 1999; Guimarães, 2005). Cavalcanti (1999) claims that there is a myth of monolingualism in Brazil. According to Cavalcanti (1999) this monolingual view of Brazil excludes a great proportion of its population, such as immigrant communities, indigenous communities and also communities who speak non- prestigious varieties of Brazilian Portuguese. Guimarães (2005) states that although Portuguese is the official language in Brazil, it is not the mother tongue for all Brazilians. According to Guimarães (2005), in the context of Brazil, Portuguese coexists with indigenous languages, immigrant languages, frontier languages and also African languages. In the specific region of Brazil, where the present study took place, which is located in the state of Santa Catarina, many people speak immigrant languages. In this context, the learner of English is an L3 learner who already posses knowledge of two languages, the immigrant language and Brazilian Portuguese, prior to starting learning English.

2.1.1 TLA and SLA

Leung (2007) states that the study of third language acquisition (TLA) was subsumed under the field of second language acquisition (SLA). Because of this, Leung suggests that the SLA field is the mother field of TLA. It was in the last decade that studies started to differentiate third and second language acquisition. Leung (2007) states that a number of researchers have started to look seriously at the phenomenon of TLA/multilingualism as a separate domain of inquiry (Leung, 2007). Yet, there are some researchers (Ellis, 1997; Doughty, 2007; Gass & Selinker, 2008) who still do not differentiate between L2 and L3

acquisition and use SLA as a cover term for any language acquired after the native.

In agreement with Leung's claims, Jessner (2006) also explains that for a long time third language learning was seen by linguists as a by-product of research on second language learning². However, Jessner (2006) also states that this view has changed and nowadays it is known that learning a second language differs in many respects from learning a third language (p.13). Jessner (2006) states that TLA is not only a more complex process but it also requires different skills of the learner. She adds that the individual and social factors also affect language acquisition, as mentioned in subsection 2.1. Furthermore, Jessner (2006) argues that "the process of learning or the product of having learnt a second language can potentially exert influence on the acquisition of a third language and this involves a quality change in language learning and processing" (p.14).

Some scholars have investigated TLA and have demonstrated that the acquisition of L3, L4 or additional languages differs from the acquisition of a second language mainly because of the influence from one language system into another, which is a more frequent process in multilinguals (Hammarberg, 2001; Dewaele, 2001; Ecke, 2001; De Angelis & Selinker, 2001; Herwig, 2001; Leung, 2005; Carvalho & Silva, 2006; Tremblay, 2006; Melhorn, 2007; Bardel & Falk, 2007; Maghsoudi, 2008). Gass & Selinker (2008) state that this new area of research, TLA, addresses quite interesting and more complex questions than those involved in SLA, mainly because of the multiple languages involved in the process of TLA. Gass & Selinker (2008) mention that there are a number of variables which can have an impact on TLA, mainly when considering the influence of L1 and L2 in the acquisition of the L3. The authors mention variables such as the age at which L3 learning begins, the context of acquisition, individual characteristics, and language distances among the three languages involved. Still according to Gass & Selinker (2008), one difficulty faced by L3 learners is to keep the two foreign languages apart (L2 and L3). Gass & Selinker (2008) state that for some L3 learners it is possible to keep the two foreign languages apart and even to assign different functions for each. However, the authors claim that "most individuals do not have such control and are not so compartmentalized" (p.22). According to the authors the reason why multilinguals cannot keep languages apart and why these languages are in contact, interacting with each other, is the

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² In the present study the terms learning and acquisition are used interchangeably.

heart of research on multilingualism.

According to Kellerman (2001), second and third language acquisition are distinct processes, since second language learners have two systems (L1 and L2) that can pottentially influence each other. In TLA, there is one more system (L3) and the possibilities of interaction among these languages increase. Cenoz (2001) claims that L3 learners differ from L2 learners because the L3 learner is an experienced learner and also because bilingual and multilingual individuals present a different type of competence as compared to monolinguals. In the present study, SLA and TLA are addressed as different processes as argued by the authors above (Leung, 2007; Jessner, 2006; Kellerman, 2001; Hammarberg, 2001; Dewaele, 2001; Ecke, 2001; De Angelis & Selinker, 2001; Herwig, 2001; Leung, 2005; Carvalho & Silva, 2006; Tremblay, 2006; Melhorn, 2007; Bardel & Falk, 2007; Maghsoudi, 2008).

2.1.2 Definitions of first, second and third language in the present study

In the previous sections I have pointed out that researchers make a distinction between SLA and TLA. According to Rothman, Iverson & Judy (2011) the term L2 cannot be used as a cover term for L3 or Ln acquisition. They state that: "the label L2 used to mean 'adult acquisition' is imprecise. "In the case of L3 acquisition, these learners, among other differences, all have more sources for initial state hypotheses than a monolingual L2 learner" (p.7). However, the distinction between L2 and L3 is very recent. More specifically, Rothman *et al* (2011) state that the distinction between L3 and L2 acquisition emerged in the 2000s and the main motivation for maintaining the difference was the source of transfer, which is present in L2 and L3. In TLA there is the possibility of transfer from L1 and L2, whereas in SLA the source of transfer can be only the L1.

In the present study, the definitions used for third and second languages are based on the chronological order in which these languages were acquired (Gass & Selinker, 2008). In other words, a second language is the language learned after the native language; a third language is the language learned after the second. More specifically, in this study, the term L1 will be used to refer to the native language, L2 will be used for the language learned immediately after the first, and L3, for the language learned or being learned after the second.

Gass & Selinker (2008) differentiate foreign and second

language. The authors state that foreign is the language learned in the environment of the learners' native language, whereas second language is the language learned in the environment where the language is spoken. Ellis (1997) defines second language as a language learned naturally, as a result of living in a country where it is spoken and, foreign language, as the language learned in a classroom through instruction (p. 3). This distinction between second and foreign language, as mentioned by the authors above (Gass & Selinker, 2008; Ellis, 1997), relates to the context of acquisition. According to these definitions, the participants of the present study, who were learners of English as a third language, acquired their L2 in an environment where this L2 was spoken by the community. Consequently, for these participants, their L2 is a second language (Mackey, 2006). On the other hand, the target language of the present study, which is English, is acquired by participants, in classroom settings. Consequently, English is being learned as a foreign language for these participants. However, it has to be pointed out that, in the present study, the criteria adopted for the terms first, second and third language is chronology, and not context of acquisition. For this reason, second language will be used, throughout this study, to refer to the language learned chronologically after the first language, and third language will be used to refer to the language learned or being learned, after the second (Gass and Selinker, 2008).

2.1.3 Bilinguals x monolinguals and language learning

The growing interest in multilingualism has led to studies which seek for differentiating bilinguals and monolinguals as language learners. Jessner (2006) claims that there is evidence that "the development of competence in two languages can result in higher levels of metalinguistic awareness, creativity or divergent thinking, communicative sensitivity and the facilitation of additional language acquisition" (p.27). There are a number of studies which have demonstrated that bilinguals have some advantages over monolinguals when acquiring an additional language (Leung, 2005; Mehlhorn, 2007; Gass & Selinker, 2008; Maghsoudi, 2008). Gass & Selinker (2008) mention that the advantages which bilinguals might have may be related to cultural, communicative, economic and cognitive aspects. Concerning the cognitive advantages mentioned by Gass & Selinker, they might include divergent and creative thinking, as mentioned by Cenoz (2001), and metalinguistic awareness, also mentioned by Jessner (2006). The authors state that these advantages, in theory, might affect the

acquisition of a third language. Ortega (2009) posits that knowledge of two (or more) languages can accelerate the learning of an additional one (p.48).

This apparently facilitated manner in which bilinguals acquire additional languages, could be, in fact, seen as a more complex process than the acquisition of a second language, since, in the case of the acquisition of a third language, it is necessary to account for the two languages already acquired and how they will interact and influence the TLA process (Gass & Selinker, 2008). Mehlhorn (2007) affirms that bilingual learners have advantage on acquiring an additional language due to an understanding of the language learning process, the development of foreign language learning strategies and the acquisition of a new language system for comparison with further systems. Based on the experience acquired in the L2 learning process, the learner may shorten the time needed to learn the next language(s). One factor that would facilitate the acquisition of a third language would be the metalinguistic knowledge of the learner (Maghsoudi, 2008). When learning additional languages, a better understanding of language and linguistics itself is developed, and this might be one of the factors that might facilitate this process. Following the same argument, Vinnitskaya, Flynn & Foley (2002) believe in a maturation of linguistic principles. They claim that language acquisition is cumulative and the entire linguistic background of the learner has to be considered in subsequent language acquisition.

Cenoz (2008) defines some important areas in the study of TLA: (1) early multilingualism, which focuses on language development when children are exposed to three languages at a very early age; (2) effects of third language learning on bilingualism, which compares bilingual and monolingual learners acquiring a target language; (3) CLI in TLA, which focuses on the interaction among languages and on the influence of the first and second languages on the production of the target language; (4) age and TLA, which compares young and older learners acquisition of a target language, also considering language exposure. Jessner (2006) states that among the areas of study in TLA, CLI is the main focus of interest. This is also the focus of the present study and it is discussed in the next section of this chapter.

2.2 Crosslinguistic influences and transfer

This section focuses on the definition of the terms crosslinguistic influences and transfer by first addressing the history of these terms and

how they are currently used in research. Next, possibilities of transfer in third language acquisition are presented. Next, attention is driven to the factors that interact with CLI. At last, subsection 2.2.5 presents the two types of linguistic transfer investigated in the present study.

2.2.1 The history of the terms transfer and crosslinguistic influences

Jarvis & Pavlenko (2010) mention that the interest in language contact or in the influence from one language to another has come since antiquity (p.1). However, Murphy (2003) argues that researchers have had difficulty in defining and naming this phenomenon of language contact. First, in the 50s the term interference was proposed by Weinrich (1953 as cited in Jarvis & Pavlenko, 2010) to name the interaction among languages. Interference was seen as a negative phenomenon which was a result of the contact among languages (Ellis, 1997; Ortega, 2009). Odlin (2005) states that the publication of Weinrich's Languages in Contact (1953, as cited in Odlin, 2005) was the beginning of a more profound discussion on language interaction, even though it was concerned only with the negative effects of this interaction among languages.

Ellis (1997) explains that behaviorists believed that errors were a result of interference. For the behaviorists the habits of the L1 would prevent the learner from learning the habits of the L2 (Ellis, 1997, p. 52). Behaviorists believed that they could prevent interference and learning difficulty by identifying those areas of the target language that were different from the learners' L1. With this purpose, comparisons of L1 and the target language (L2) were carried out using Contrastive Analysis. Consequently, teaching material was based on this analysis. Teachers would try to prevent learners from the phenomenon of interference. Barbosa & Durão (2008) explain that Contrastive Analysis is a behaviorist theory, based on stimulus response. In Contrastive Analysis, the error is seen as something which has to be avoided, since it is the result of the interference of the habits from the mother tongue to the foreign language. Ortega (2009) states that in the Contrastive Analysis view it was believed that comparisons between the L1-L2 would allow researchers and teachers to predict when interference would occur and the errors that would be produced in the L2 according to the L1 background of the learner. Barbosa & Durão (2008) state that this view of Contrastive Analysis had to evolve, since it was seen that many predicted errors were not possible to be avoided and that other errors that had not been predicted would appear and challenge the

theory.

Ortega (2009) also explains that later, by the 60s and 70s, researchers in the then emerging field of SLA started to conduct analysis with a new methodology of Error Analysis. Barbosa & Durão (2008) explain that in this reformulated view of the Contrastive Analysis, researchers adopting Error Analysis interpreted errors as performance errors, which were a result of exhaustion or lack of attention from the learner, or competence errors, which were due to the lack of knowledge of the rules from the system of the foreign language. However, Ortega posits that it soon became clear that the differences of the L1-L2 were not determinant for the linguistic knowledge or behavior of the L2 learners (Ortega, 2009). Ellis explains that in the early 1970s, behaviorism fell out and theorists argued that very few errors were a result of L1 transfer. Transfer was then reconceptualized within a cognitive framework. Ellis still mentions that Larry Selinker, in 1972 (as cited in Ellis, 1997), within his formulation of interlanguage, identified transfer as one of the mechanisms responsible for fossilization. Barbosa & Durão (2008) explain that interlanguage is an intermediate linguistic system, which contains elements of the mother tongue and of the foreign language. The authors add that interlanguage changes as the learner improves in the foreign language and consequently it reveals the stage of learning of this specific learner.

In 1988, Sharwood Smith & Kellerman (as cited in Cenoz, Hufeisen & Jessner, 2001) proposed the term crosslinguistic influences to include the phenomena of transfer, interference, avoidance, borrowing, L2- related aspects of language loss. Avoidance is a strategy used by the learner for handling information. It normally happens in cases where the learner lacks awareness of the target language form and involves some sort of intentional choice to replace that form by something else (Jessner, 2006, p.104). Borrowing is the use of a word in its original form in the L1 (or Ln), but not in the target language (Cenoz, 2001). Language loss is one of the consequences of negative effects of the contact between languages which results in loss or forgetting in one of the languages possessed by the speaker (Jessner, 2006). Jessner (2006) adds that this phenomenon is much more frequent in multilinguals than in bi or monolinguals, because of the greater possibilities of contact among languages (p.18).

Sharwood Smith & Kellerman (1986, as cited in Murphy, 2003) prefer to restrict the use of the term transfer to "processes of incorporation from one language to another" and use the term CLI to refer to phenomena such as influence from L2 to L1, language loss or

avoidance (Murphy, 2003). On the other hand, there are authors that use the term transfer in a more general view. For instance, Odlin (1989 as cited in Murphy, 2003) uses the term transfer to include both positive and negative transfer. Benson (2002) uses both CLI and transfer as synonyms and Jarvis & Pavlenko (2010) mention that transfer is another term for CLI (p.1). In the present study, the terms transfer and CLI are used interchangeably to refer to the phenomena of influence of the languages that the learner possesses on the language that is being learned (Jarvis & Pavlenko, 2010).

2.2.2 Current definitions of the term crosslinguistic influences and transfer

According to Jarvis & Pavlenko (2010) the term crosslinguistic influence was proposed by Kellerman & Sharwood Smith (1986 as cited in Jarvis & Pavlenko, 2010) as "a theory- neutral term that is appropriate for referring to the full range of ways in which a person's knowledge of one language can affect that person's knowledge and use of another language (p. 3). Jarvis & Pavlenko (2010) define CLI as the influence of the knowledge of one language that the person has on the knowledge or use of another language of this person. Jessner (2006) also gives her definition for CLI. She states that the approach of CLI looks at the acquisition of an additional language focusing on the interaction of the target language and the previous languages acquired. She adds that in the case of TLA, more specifically, CLI will look at the interaction between L1 and L3 plus that between L2 and L3. Jessner (2006) also states that studies of CLI in the field of TLA have a major importance than in studies of SLA, since in SLA there are two systems influencing each other and "in TLA there are two more relationships: the interaction between L1 and L3 plus that between L2 and L3" (p.21).

Jarvis & Pavlenko (2010) offer a classification for the types of CLI (p.20). This classification refers to ten dimensions, which are listed below:

- (1) area of language knowledge/ use: this refers to the domain of reference for most of the traditional types of transfer and includes: phonological, orthographic, lexical, semantic, morphological, syntactic, discursive, pragmatic and sociolinguistic areas.
- (2) directionality: this involves the directions which CLI can occur, which are forward transfer (L1 to L2), reverse transfer (L2 to L1) and lateral transfer (L2 to L3).
- (3) cognitive level: this involves the mental representations from one

linguistic system (e.g. the L1) which are transferred to another linguistic system (e.g. the L2). It includes conceptual, semantic and linguistic representations. However, the semantic representations were included in classification number 1 – area of knowledge.

- (4) type of knowledge: this involves how the languages are stored and processed in the mind. It includes the distinction of implicit and explicit knowledge.
- (5) intentionality: this involves the distinction between CLI as a communicative strategy and CLI as the result of formed mental associations between elements of two languages. It includes intentional and unintentional transfer.
- (6) mode: it includes types of transfer which involve production or comprehension and interpretation.
- (7) channel: it comprehends types of transfer which involve speech versus those that involve writing and other forms of nonspoken verbal communication.
- (8) form: this refers to the distinction between verbal and nonverbal performance.
- (9) manifestation: this involves the distinction between overt and covert transfer. Overt transfer is categorized as such instances where a language user has made an interlingual identification between patterns, structures, forms, or meanings in the source language and those in the recipient language. Covert transfer is categorized as such instances where a language user relies on patterns, structures, forms, or meanings of the source language that do not exist in the recipient language, or omits or avoids structures that exist in the recipient language but not in the source language.
- (10) outcome: this involves negative and positive transfer. This distinction refers to whether transfer interfered with the intelligibility, success, or situational appropriateness of the language that was used, or whether it violated grammatical constraints of the recipient language.

According to this classification, the present study addresses the following dimensions of CLI: (1) area of knowledge: the lexical and syntactic areas; (2) directionality: forward (from L1 to L3) and lateral (from L2 to L3) transfer; (3) cognitive level: linguistic; (4) type of knowledge: implicit and explicit knowledge; (5) intentionality: intentional and unintentional transfer; (6) mode: related to production; (7) channel: written and oral; (8) form: verbal; (9) manifestation: overt and covert types of CLI; (10) outcome: positive and negative transfer.

Ellis (1997) defines L1 transfer as referring to "the influence that the learner's L1 exerts over the acquisition of an L2" (p. 51). Ellis states

that when L1 transfer causes errors it is defined as negative transfer. On the other hand, when it facilitates L2 acquisition it is named positive transfer. Ellis also mentions other types of transfer that may result in avoidance, that is, when one feature of the L2 is not present in the L1 and as a consequence the L2 learner rarely uses it. L1 transfer may also cause the overuse of some feature of the language. Although the concepts proposed by Ellis (1997) are based on SLA, the same concepts can be applied to TLA as well.

2.2.3 Transfer in TLA

Rothman & Amaro (2010) argue that the study of TLA offers the possibility to investigate CLI concerning three possibilities: (1) if the native language is the only source for subsequent linguistic acquisition; (2) if the later acquired languages are the source/ base for the next language to be acquired and (3) if the entire linguistic repertoire is used to assist subsequent language acquisition. Rothman et al (2011) state that due to the fact that in TLA there is the possibility of more than one source of transfer, there are at least four possibilities for how transfer is manifested in TLA: (1) no transfer position: according to this possibility the adult initial state of language acquisition is the same, irrespectively of the previous linguistic knowledge the learner possesses. Bardel and Falk (2007) add that in this no-transfer hypothesis, it is argued that neither L1 nor UG are involved in the acquisition process, only general learning strategies guide the learner development in the new grammar. Still according to this hypothesis it is assumed that all learners will behave similarly (Bardel & Falk, 2007); (2) transfer from the L1 - L1 factor: according to this possibility the L1 has a privileged status and transfer will come only from the L1; (3) transfer from the L2 - L2 status factor: this position is stated by Bardel & Falk (2007) and according to them, in TLA the L2 works as a filter which blocks L1 transfer. In other words, according to the authors, in TLA transfer occurs only from the L2. Even when linguistic typology and relatedness relationships exist between the L1 and the L3, transfer will always occur from the L2 to L3; (4) transfer from either L1 or L2: the features and functional categories can be transferred from either the L1 or the L2, this position has been divided in the literature in two formal models. (A) The Cumulative Enhancement Model: this model was developed by Flynn (2004, as cited in Rothman et al, 2011) and predicts that the entire linguistic background serves as a source of influence for TLA. In other words, according to Flynn (2004, as cited in Rothman et al, 2011) both L1 and L2 may influence TLA. Still according to the CEM, transfer is either facilitative or does not occur. In other words, according to the CEM, negative transfer simply does not occur, it is either positive or neutral. (B) The Typological Primacy Model (Rothman, 2011): this model predicts that typological proximity is the most determinant variable conditioning multilingual transfer. The TPM also hypothesizes that non-facilitative transfer can occur based on typological proximity between the languages. More specifically, the Typology Primacy Model is stated as follows (Rothman, 2011):

"Initial state transfer for multilingualism occurs selectively, depending the on comparative perceived typology of the language pairings involved. psychotypological proximity. Syntactic properties of the (psycho)typological language, either the L1 or the L2, constitute the initial state hypotheses in multilingualism, whether or not such transfer constitutes the most economical option." (p.112)

Rothman (2011) explains that when referring to psychotypology, he means the learner's perception of typological proximity. When referring to economical option, he means which one of the two systems actually provides the best source of transfer to the L3. In addition, Rothman (2011) states that in many cases psychotypology and actual typology proximity are the same. However, the author claims that it is also possible that the learner activates the less economical option for considering psychotypology.

2.2.4 Factors that may interact with CLI

Jarvis & Pavlenko (2010) state that "one of the most important developments in the history of transfer research was the shift of attention from transfer to transferability" (p. 174). The authors define transferability as something likely to be transferred. Jarvis & Pavlenko (2010) mention that in 1983, Kellerman (1983, as cited in Jarvis & Pavlenko, 2010) synthesized the two general constraints that govern the occurrence of language transfer into psychotypology and transferability. According to this classification, psychotypology is related to what the L2 user perceives as being similar in the L1 to the L2. On the other hand, transferability refers to the notion that structures perceived by the L2 user as marked are less likely to be transferred. Jarvis & Pavlenko

(2010) state that another principle similar to that of Kellerman (1983, as cited in Jarvis & Pavlenko, 2010) was the transfer to somewhere principle, which was proposed by Andersen (1983, as cited in Jarvis & Pavlenko, 2010). This principle predicts that "a language structure will be susceptible to transfer only if it is compatible with natural acquisitional principles or is perceived to have a similar counterpart (a *somewhere* to transfer to) in the recipient language" (Jarvis & Pavlenko, 2010, p. 174). Jarvis & Pavlenko (2010) claim that the psychotypology and transferability constraints and the transfer to somewhere principle have been supported by many empirical studies. Nevertheless, the authors state that there are additional factors that may also affect transfer and transferability. The authors state that Odlin, in 1989 (1989, as cited in Jarvis & Pavlenko, 2010) add seven factors that may affect transfer: personality, aptitude, proficiency, literacy, age, linguistic awareness and social context.

Jarvis & Pavlenko (2010) offer a new classification of the variables that have been found to indicate the occurrence or nonoccurrence of transfer. In addition, the authors make a distinction between two types of effects on transfer which they consider fundamental, which are learning- related effects and performance-related effects. According to the authors, learning- related effect is related to the "influence that a factor has on whether a person will form a mental association (or interlingual identification) between features of two or more languages" (Jarvis & Pavlenko, 2010, p. 175). The authors also explain performance- related effects as "context- related factors that influence the amount and types of transfer that will emerge during actual language use" (Jarvis & Pavlenko, 2010, p. 175). The authors offer a classification of the factors that interact with CLI, discussing each factor in relation to the two types of effects just mentioned. This classification (p. 175) divides the factors into five categories, as follows:

- (1) linguistic and psycholinguistic factors: this category relates to characteristics of both the source and recipient language that can affect transfer. It involves factors of crosslinguistic similarity, area of language use, frequency, recency, salience, markedness and prototypicality and linguistic context;
- (2) cognitive, attentional, and developmental factors: this category concerns a person's cognitive capacities and use of cognitive resources at the time of learning or language use;
- (3) factors related to cumulative language experience and knowledge: this category involves the effects that prior language knowledge and experience have on current language learning and use;

- (4) factors related to the learning environment: this category concerns the learning context;
- (5) factors related to language use: this category pertains to the language- use context.

From the factors mentioned in Jarvis & Pavlenko's classification, the present study investigated linguistic and psycholinguistic factors and also factors related to cumulative language experience and knowledge. In relation to linguistic and psycholinguistic factors, the following is of great importance to the present study: factors of typology, recency and L2 status. Regarding the factors related to cumulative language experience and knowledge, the present study investigated the factors of order of acquisition and proficiency. The five factors mentioned are presented in subsections 2.2.4.1 to 2.2.4.5.

2.2.4.1 Typology

In the present study this factor was named according to Cenoz (2001) typological distance among languages. Cenoz (2001) defines typological distance as the influence exerted by the most similar language to the target one. Jarvis & Pavlenko (2010) state that this factor may also be called language distance, typological proximity, psychotypology and crosslinguistic similarity (Jarvis & Pavlenko, 2010). According to Odlin (1989, as cited in Jarvis & Pavlenko, 2010), the more semantically and categorically related linguistic structures in two languages are, the greater the likelihood of transfer. Though, the author adds that the importance of language distance depends very much on the subjective perception of that distance – psychotypology.

Jarvis & Pavlenko (2010) state that transfer may occur between two languages that are quite different. Nevertheless, the authors claim that the extent of transfer is higher when the L2 user perceives the source and recipient language as very similar. According to Jarvis & Pavlenko (2010) typology can affect the process of comprehension, learning and production. Regarding comprehension Jarvis & Pavlenko (2010) claim that speakers of languages that are closely related to the target language may comprehend the target language much better than the ones who are speakers of more distant languages. The authors add that what facilitates comprehension of the speakers of a more similar language is that the comprehention of the target language is facilitated by "the recognizability of its structures and the familiarity of its patterns of mapping meaning to form" (p.176). As regards learning, the authors claim that the consequence of greater levels of comprehension is often

an enhanced rate of learning, especially if the newly encountered forms are mentally matched and associated with already learned forms. In the authors words:

"One of the consequences of learning a language that is similar to the one's L1 is that many of the forms and structures encountered in the L2 will bear an obvious similarity to corresponding L1 items, and these will be learned with facility in the sense that they will be readily associated with already- learned L1 forms and structures and will quickly be integrated into one's expanding interlanguage system." (Jarvis & Pavlenko, 2010, pp. 176 & 177)

As regards language production, Jarvis & Pavlenko (2010) argue that an increased rate of learning generally leads to gains in production. However, the authors point to two important considerations, concerning learners of an L2 that is similar to their L1: (1) these learners show more instances of overt transfer in their production of the recipient language than those who have a source language that differs from the recipient language; (2) these learners will have a greater gap between comprehension and production, at least for learners in a foreign language learning situation. The authors' explanation for this second consideration is that learners of a similar language can comprehend more than they have experienced or have been instructed in the L2. Though, the authors state that these learners' production is restricted by what they have learned through experience or instruction in the L2.

Jarvis & Pavlenko (2010) distinguish objective and subjective similarity. The former refers to the actual degree of congruence between languages and the latter refers to the degree of congruence the L2 user believes or perceives to exist. The authors state that the subjective similarities are of primary importance to transfer and that they are divided into perceived similarities and assumed similarities. The authors define perceived similarities as "a conscious or unconscious judgment that a form, structure, meaning, function or pattern that an L2 user has encountered in the input of the recipient language is similar to a corresponding feature of the source language" (Jarvis & Pavlenko, 2010, p. 179). Regarding assumed similarities, the authors define them as:

"a conscious or unconscious hypothesis that a form, structure, meaning, function or pattern that exists in the source language has a counterpart in the recipient language, regardless of whether the L2 user has yet encountered anything like it in the input of the recipient language, and regardless of whether it actually does exist in the recipient language." (Jarvis & Pavlenko, 2010, p. 179)

Jarvis & Pavlenko (2010) posit that the effects of typology on transfer are very important in contexts of L3 acquisition or multilingualism. In these contexts, there may be a more profound investigation concerning the effects of typology, because learners of an L3 have two potential source languages, instead of one, as in the case of the second language learner.

2.2.4.2 L2 status factor

L2 status concerns the privileged status of the L2 as favoring transfer from a non- native language to the L3 (Llama, Cardoso & Collins, 2007). The L2 status factor can also be referred to as talk foreign or foreign language mode (Jarvis & Pavlenko, 2010, p. 184). Jarvis & Pavlenko (2010) define this factor as the following "learners often show interference from one nonnative language when using another due to a constraint that makes it difficult to fully compartmentalize post- L1 languages" (Jarvis & Pavlenko, 2010, pp. 184 & 185).

De Angelis & Selinker (2001) state that the use of the L2 as a source of influence for the L3 instead of the use of the native language may be related to the fact that there is a possible interaction in the multilingual mind of the "foreign-ness" of words (p.56). The authors add that learners may not want to sound as if they are speaking their native language. As a consequence, learners may prefer to use another foreign language as a source, so they would sound more foreign. De Angelis & Selinker (2001) support the view that there is a potential cognitive mode named talk foreign or foreign language mode which eases the path of interlanguage transfer (p.56). Llama, Cardoso & Collins (2007) also support the view that the learner's foreign languages are mentally associated, what facilitates cognitive associations between them. The authors argue that the mother tongue is excluded from this association, for not being foreign, and this would facilitate the learner from blocking the influence of the L1.

2.2.4.3 Order of acquisition

Order of acquisition refers to the order which the languages were acquired (Carvalho & Silva, 2006). According to the factor of order of acquisition, the target language will be influenced by the first language acquired. In other words, there is a privileged role of the L1, the native language, to be the source of influence for the L3. One justification for the greatest influence of the native language as compared to the L2 would be the greatest knowledge and experience that the learner normally has in his native language (Ringbom, 2001).

2.2.4.4 Recency

Recency is a factor related to the frequency of use of the person's background languages. According to Jarvis & Pavlenko (2010), "the languages that a person has used recently tend to bear a high level of activation in a person's mind" (p. 184). Consequently, if the most recently used language is more activated, it will have more chances of interfering in the target language. The authors also state that the effects of recency are much clearer in multilingual contexts. For Bayona (2009) if the language (L1 or L2) "has recently been activated, it remains more accessible as a linguistic reference for the learner" (p.4). Cenoz (2001) explains that "learners are more likely to borrow from a language they actively use than from other languages they may know but do not use.

2.2.4.5 Proficiency

According to Jessner (2006), in TLA, the level of proficiency in all three languages has to be taken into account. Cenoz (2001) states that CLI has been related to the level of proficiency of the learner in the target language, whereas less proficient learners have been reported to transfer more elements from their previous languages than higher proficient learners. She also agrees with Jessner (2006) in that in TLA, proficiency has to be considered in the three languages spoken by the learner.

2.2.5 Linguistic transfer

Among the different types of CLI distinguished (p.20) by Jarvis & Pavlenko (2010) there is the distinction between linguistic and conceptual transfer, the first referring to linguistic forms and structures

whereas the second is analyzed in relation to the mental concepts that underlie those forms and structures (p. 61). The focus of the present study is on linguistic transfer. According to Jarvis & Pavlenko (2010) linguistic transfer can be manifested in all linguistic subsystems: phonology, orthography, morphology, lexical, semantic, syntactic, discursive, pragmatic and sociolinguistic. The present study focuses on lexical and syntactic transfer, which are described in subsections 2.2.5.1 and 2.2.5.2.

2.2.5.1 Lexical transfer

Jarvis & Pavlenko (2010) define lexical transfer as "the influence of word knowledge in one language on a person's knowledge or use of words in another language" (p. 72). The authors also add that: "If the words we know in different languages are mentally interconnected, then it follows that our knowledge of words in one language may affect how we learn, process, and use words in another language" (Jarvis & Pavlenko, 2010, p. 74). Jarvis & Pavlenko (2010) explain that in the literature, morphophonological errors that result from transfer are named formal lexical transfer. In the present study, the term transfer of form was used (Ringbom, 2001) as referring to formal lexical transfer. On p. 75, Jarvis & Pavlenko (2010) also explain the types of formal transfer as (1) the use of a false cognate, (2) an unintentional lexical borrowing involving the use of a word of the wrong language and (3) the coinage of a new word by blending two or more words from different languages.

Semantic transfer is another type of transfer at the lexical level (Jarvis & Pavlenko, 2010), which, in this study was named transfer of meaning according to Ringbom (2001). According to Jarvis & Pavlenko (2010), this type of transfer includes (1) the use of an authentic target-language word with a meaning that reflects influence from the semantic range of a corresponding word in another language, (2) the use of a calque in the target language that reflects the way a multi- word unit is mapped to meaning in another language. Calques are transfer errors of multi- word units, which include loan translations of compounds, phrasal verbs and idioms (Ringbom, 2001). Ringbom explains that the cause of a calque is the "awareness of existing target language units but not of relevant semantic/ collocational restrictions" (p.64). Ringbom (2001) gives one example of a calque: "My uncle never married: he remained a *youngman* all his life" (p.64). Ringbom explains that the intended word for this sentence would be bachelor and not youngman.

2.2.5.2 Syntactic Transfer

Jarvis & Pavlenko (2010) state that until the 90s, it was believed that syntax was immune to CLI effects. However, due to the conclusions of recent studies, the authors state that there have been ample instances of syntactic transfer in various types of data. According to the authors, CLI have influenced syntax both in reception and production. The authors also explain that syntactic transfer includes not only word order, but also other grammatical constraints. Jarvis & Pavlenko (2010) mention the effects of CLI on grammatical judgment of multilinguals, adverbial placement, adjective placement and null subjects. Jarvis & Pavlenko (2010) also mention the influence of effects of CLI in various grammatical areas, such as relative clauses, articles, prepositions. In addition, the authors claim that studies have investigated CLI effects in syntax using the generative perspective.

2.3 Other concepts relevant for the present study

This section presents other concepts that are also important to be defined for the present study. Subsection 2.3.1 presents the definitions of learner's errors. Subsection 2.3.2 presents the origins of the languages spoken by participants of the present study.

2.3.1 Learner's errors

Ellis (1997) states that learners' errors may be an important step in students' development of the target language and may also be an important feature to be analyzed in order to understand the process of learning. Ellis (1997) claims that identifying errors may not be an easy task, mainly because sometimes learners might make use of structures that are possible in the target language but that are not the preferred ones to be used. Corder (1967) distinguished errors and mistakes. Mistakes would be the errors of performance, which are unsystematic. Errors would be systematic, and they represent the learners' competence or knowledge of the language to date.

Ellis (1997) states that after identifying learners' errors, it is important to describe and classify them into types. Ellis (1997) mentions the possibility of classifying errors into grammatical categories. In addition, Ellis (1997) states that classifying errors is helpful in order to diagnose learners' learning problems at any stage of their development. Moreover, by classifying errors it is possible to infer how changes in

error patterns occur over time. According to Ellis (1997) an even more interesting task is that of explaining errors. In addition, Ellis (1997) states that the explanation of learners' erros may come to a conclusion that they are systematic, and sometimes, even universal. Errors may be considered universals when most, if not all learners go through the same stage of learning for a specific structure (p.19). Ellis (1997) also mentions that there are some errors which are not universals, but are common to learners who share the same mother tongue or whose mother tongues manifest the same linguistic property (p.19).

Ellis (1997) claims that errors can have different sources. For instance, universal errors reflect an attempt of the learner to simplify the task of learning the L2. Another example would be the case of errors related to omission, such as when learners omit articles *a* and *the* and omit the –s of plural nouns (p. 19). Ellis (1997) also mentions the errors originated from overgeneralization, that is when the learner applies a rule, as for example the –ed for the regular form of the past simple for verbs which are irregular, as in the form *eated* instead of *ate*. Ellis (1997) argues that there are other types of errors which are an attempt from the learner to make use of his L1, which he names transfer errors. Finally, Ellis (1997) claims that omission, overgeneralization and transfer errors are examples of learning strategies employed by learners in order to develop their interlanguage.

As referring to universal errors, Jarvis & Pavlenko (2010) mention that there are tendencies that learners from different L1 backgrounds have omitting certain structures, such as inflectional affixes, articles and prepositions, which is a tendency known as simplification. Another universal tendency is that of overgeneralizing a certain structure in contexts where it is ungrammatical or unconventional in the target language, such as in the case that the learner uses the definite article in almost all noun phrases (p.192). Jarvis & Pavlenko (2010) claim that these tendencies of simplification and overgeneralization also interact with transfer.

2.3.2 Origins of languages

The languages of the present study are originated from the Indo European family of languages (Comrie, 2007). Among the subdivisions of the Indo European family of languages, there are two that have to be considered for the present study: the Germanic and the Romance languages (Comrie, 2007). The Germanic languages include English, Dutch, German and the Scandinavian languages. Two of these

languages are important to the present study, English and German. The Romance languages are originated from Latin, which was the language of the Roman Empire (Comrie, 2007). More specifically, these languages are Italic, which includes all the Romance languages. According to Comrie (2007) some of the Romance languages are French, Catalan, Spanish, Portuguese, Italian and Romanian. For the present study it is especially important to consider French, Spanish, Portuguese and Italian.

In short, in the present study two branches of language families were present, the Germanic and the Romance languages, which came all from the original Indo European language family (Comrie, 2007).

2.4 Studies on CLI and TLA - The role of L1 and L2 in the acquisition of an L3 $\,$

As third language acquisition is still a recent topic, there is no specific conclusion as to whether it is the L1 or the L2 that has a more important role in the acquisition of an L3 (Cenoz, 2001; Gibson *et al*, 2001; Fouser 2001; Ecke, 2001; Ringbom, 2001; Herwig, 2001; De Angelis & Selinker, 2001; Vinnitskaya, Flynn & Foley, 2002; Tremblay, 2006; Carvalho & Silva, 2006; Bardel & Falk, 2007; Llama *et al*, 2007; Shooshtari, 2009; Perales *et al*, 2009; Jin, 2009; Ranong & Leung, 2009; Bayona, 2009; Chin, 2009; Rothman & Amaro, 2010; Falk & Bardel, 2011; Foote, 2009; Montrul, Dias & Santos, 2011; Rothman, 2011). This section aims at reviewing studies which had the goal of investigating the role of L1 and L2 in TLA.

A study was conducted in the Basque country (Cenoz, 2001) with the goal of investigating CLI related to the factors of linguistic distance, L2 status and age in the acquisition of English as a third language by speakers of Basque and Spanish. The participants were 90 elementary and secondary school students who had Basque and/or Spanish as their first language and lived in the Basque Country (Spain). Participants completed a background questionnaire that included questions on the knowledge and use of Basque in their social networks. In the task indeed, participants were asked to tell the wordless picture story 'Frog, where are you?' in English. All the stories were audio- and videotaped; they were also transcribed, and all cases of CLI at the lexical level were identified. The study showed that linguistic similarity plays an important role, since the students transferred more from Spanish, which is an Indo-European language, than from Basque, that is a non- Indo- European language. CLI were also more common in content words than in

function words. Students also transferred more terms from the second language, either when it was Spanish or Basque. To sum up, these results point to the strong influence of linguistic similarity and second language on TLA.

The role of L1 and L2 was also observed in the acquisition and production of L3, in a case study (Hammarberg, 2001) based on a longitudinal corpus of audiotaped conversations, and retrospective comments. The participant was a native speaker of English who had studied French, German, Italian and Swedish. For the study, it was considered English as her L1, German as her principal L2 and Swedish as her L3. At the start of the project, the participant was a beginner in Swedish. However, as the study proceeded, her proficiency increased. The results of this study did not point to a stronger influence of the L1 or L2. Instead, it showed that the background languages of the participant played different roles in the process: L1 had a more functional role, such as in the acquisition of words and other expressions; L2 had a supplier role that decreased with the increasing of the proficiency of the speaker.

Another study focusing on CLI at the lexical level was conducted with two adult multilinguals who were learning Italian as an L3 and as an L4 (De Angelis & Selinker, 2001). One participant was a French-Canadian, who also spoke: English (L2), Spanish (L3) and Italian (L4). The other participant was British and had Spanish as his L2 and Italian as his L3. Both participants were living in England at the time of data collection. The first participant was interviewed twice by the same interviewer, being the first interview in Italian, based on general questions. The second interview was 6 months later and the participant was asked whether she was familiar with a list of English words which were read aloud to her one at the time. The participant was asked to translate the same English words into Italian. Then the participant was asked whether she had ever heard the Italian target words. The second participant was tape- recorded over five weeks by his instructor, a native speaker of Italian. The participant was asked to watch the Italian evening news on RaiUno almost on a daily basis and prepare an oral report on the latest events for the following day. He was tape- recorded as he summarized the news to the instructor. From both participants, lexical and morphological transfer was observed, although restricted to transfer of form. It was also evident that participants transferred from languages that were typologically closer, such as in the case of Spanish to Italian

In regard to the lexical level, there are some studies in which translation tasks were applied to participants in order to investigate CLI. As the study by Ringbom (2001) which involved translations of English words by learners in Swedish and Finish language schools, who had English as a third language. The results of this study showed that the influence of L1 or L2 will depend on the type of transfer. When transfer of form was concerned, there was influence from either L1 or L2. On the other hand, when transfer of meaning was concerned, only the L1 influenced the target language. The author also observes the role of typology; he claims that L2 transfer tends to be more frequent when the learner perceives similarities between the L2 and the L3.

Herwig (2001), along the same lines, conducted a study focusing at the lexical level, which involved translation from a mother tongue into three related second languages. The participants were four university students of Germanic languages. One student was a native Norwegian and the others were Irish. They were learning German, Dutch and Swedish. The tasks applied consisted of a composition of a story on the basis of a series of pictures in their mother tongue, a translation of the same story into the respective second languages and think-aloud verbal protocols on performing the translation task. Information on the participants' linguistic background was collected by means of a questionnaire, including detailed questions on their previous linguistic experience, on the perceived linguistic distance of the languages tested, and a self-assessment of their proficiency in these languages. The story was composed based on an episode of 'Calvin and Hobbes'. The results support the notion that the languages in the multilingual brain are multifariously linked but can also, to a certain extent, be activated independently. Factors such as linguistic distance, proficiency may determine the crosslinguistic link among these languages.

A translation task was also applied in a study focusing on the acquisition, organization and processing of L3 words, their organization and relation to other words (of L1, L2 and L3) in the mental lexicon (Ecke, 2001). Participants were 24 new learners of German (L3) with Spanish (L1) and intermediate- high proficiency level of English (L2). The study was designed by means of a translation task, used to elicit (written) word production and extensive word search, where participants were presented 23 stimuli on transparencies for L3 word recall. The Spanish translation equivalent and sentence context were read once by the investigator, participants were then given 90 seconds for word search and filling in the answer sheet. Next, the researcher asked the

participants to stop writing and to listen to and read the correct L3 target word presented on a transparency; participants were supposed to mark yes or no on the lower part of the answer sheet whether they knew the target word and they were searching for it. The recall responses were analyzed by means of their relation with the target word and also from a cross-lexical influence perspective. The results of CLI pointed to more influence from within the L3, and then with L2 words, but not with L1.

Regarding lexical selection, two models were investigated (Dewaele, 2001): one where selection and de-selection correspond to proactive activation and deactivation of languages in the mind of the bilingual; the other model, based on the principle of inhibition of lemmas. The participants were 25 university students, aged between 18 and 21. All participants had been following intensive French courses (150 hours) for five months with the researcher as their teacher. In order to look for evidence supporting either proactive or reactive models, the participants were first given a sociobiographical questionnaire that included questions about the type and frequency of contact with the target language. Next, the researcher and the participants were recorded sitting face to face in a classroom in both an informal and a formal situation. The recordings were transcribed into orthographical French. The linguistic variables, such as mixed utterances, speech rates, hesitation phenomena, length of utterance, omission of the 'ne' in the negation, the choice of the speech style, lexical richness and lexical inventions were analyzed. t- tests showed that the formality of the situation affected the choice of the language mode: in the formal situation, there was a shift towards the monolingual end of the continuum. As for the models investigated, proactive models presented the most attractive option.

An introspective study was carried out with two high-intermediate learners of Korean as an L3 and L5, who had previously acquired Japanese (Fouser, 2001). The aim of the study was to investigate if the similarities between Japanese and Korean would affect the process of learning Korean. Participants were submitted to a language learning experience questionnaire and a multiple language learning experiential report, in order to gather background information. The participants performed the following tasks: a Discourse completion task, a Language Choice Questionnaire and a Short Writing Task and a C-test as a proficiency measure. For the participants of this study, the knowledge of Japanese helped more than hindered the acquisition of Korean, pointing to a positive influence of the L2 in the process of TLA.

On the linguistic aspect of phonology, the two factors of typology

and L2 status were investigated in order to determine which was the strongest factor influencing phonological acquisition of a third language (Llama, Cardoso & Collins, 2007). The investigation had two research groups: one group was constituted by speakers of English as an L1 and French as an L2 and the other had French as L1 and English as L2; both groups were at intermediate level of Spanish as a third language. The results pointed to L2 status as a stronger source of influence in the acquisition of L3 phonology.

Concerning the teaching and learning of English as an L3, the positive use of L1 (Mongolian) and L2 (Chinese) simultaneously was examined, in this process (Baiynna, 2009). The researcher reports that teachers have to pay special attention to the amount of English used in the classes, since it can be perceived as a chance to give students maximum exposure to the target language but it may also cause demotivation to the students. On the other hand, the study suggested a very positive interaction among L1 and L2 (Mongolian and Chinese, respectively) in the process of acquisition of English as an L3. It once again states that the interaction between L1 and L2 are present in the L3 learning process.

Still regarding language teaching, a study (Mayo & Olaizola, 2011) was conducted with Basque- Spanish bilinguals, learners of English as an L3, who differed because one group was following a Content and Language Integrated Learning program and the other group was following an English as a foreign language program. The focus of the study was in affixal tense and agreement morphemes in the L3 English. The task performed by participants was an oral narrative based on Mayer (1969). The results of the study pointed to no difference between the two groups, leading to the conclusion that the teaching of content through the target language does not alter the acquisition of supletive and affixal morphology.

A study focusing on the acquisition of relative clauses (Vinnitskaya, Flynn & Foley, 2002) in English as a third language, was conducted in order to investigate if there is a privilege of the first language compared to the second in the acquisition of English as a third language. The participants of the study were Kazakh speakers who had acquired Russian as an L2. They were tested on three batteries of sentences, with three types of relative clauses, whereas the participants heard a sentence and were asked to repeat it. The results suggest that language acquisition is cumulative and experience in any prior language can facilitate the acquisition of an additional language. In other words, their study suggests that not only L1 has influence in the acquisition of

an additional language, but the entire linguistic background of the learner might play a role in this process.

Another study that investigates the acquisition of relative clauses in English as an L3 was conducted with L1 Kazakh and L2 Russian speakers (Flynn, 2009). The participants of the study performed an elicited imitation task. By analyzing the results of the study, the authors also concluded that experience in any prior language can be drawn upon in subsequent language acquisition. The results of the study favor the Cumulative Enhancement Model (section 2.2.3). As referring to the role of L1 and L2 in TLA, the results of the study showed that L1 does not have a privileged role in TLA and that the most influential language could be the last learned, in this case the L2.

Carvalho & Silva (2006), on the other hand, investigated the acquisition of Portuguese as a third language by English- Spanish bilinguals, who had either English as their L1 and Spanish as their L2 or Spanish as their L1 and English as their L2 was investigated. More specifically, the influence of L1 and L2 in the acquisition of Portuguese as an L3 was analyzed in order to determine which the most important factor interacting with CLI was, order of acquisition or typological distance among languages. The following pedagogical tasks, in Portuguese, were applied: participants were required to write sentences in the present subjunctive (task 1) and in the future subjunctive (task 2). Participants were asked to think aloud while working on the pedagogical tasks. The results of both tasks showed that both groups relied heavily on Spanish, and English native speakers made fewer mistakes than the Spanish native speakers, which leads to the conclusion that English L1 speakers transferred from Spanish more times than Spanish L1 speakers. The study's conclusion is that typological distance among languages overrides order of acquisition, since participants in both groups transferred mostly from Spanish, in either cases where it was a first or a second language.

The acquisition of Brazilian Portuguese as a third language was also investigated with focus on clitics and object expression (Montrul, Dias & Santos, 2011). Two different groups of learners participated in the study: one group of L1 speakers of English and L2 speakers of Spanish and the other group with L1- Spanish and L2- English. The specific structure chosen to be investigated in their study is present in only two of the three languages involved in the study: Brazilian Portuguese and Spanish. By varying the L1 and the L2 of the participants, the authors could analyze the role of the two previous languages in the acquisition of the L3. This investigation was divided in

two studies. In Study 1, spoken language was investigated and the task consisted of three semi- spontaneous oral productions. In Study 2, participants performed a written acceptability judgment task. The results of the study showed that at the particular syntactic domain investigated and for the three languages involved in the study, structural similarity and/or psychotypology played a role as it does in lexical acquisition.

Rothman (2011), along the same lines, investigated the acquisition of Brazilian Portuguese focusing on adjectival interpretation. The study compared two groups of L3 learners: one group of L1- Italian, L2- English, learners of Spanish as an L3 and another group of L1-English, L2- Spanish, learners of Brazilian Portuguese as an L3. Rothman's study particularly investigated the following TLA transfer proposals: The Cumulative Enhancement Model (section 2.2.3), the L2 status factor and the Typological Primacy Model (TPM). This third proposal is in favor of proximity in actual or perceived linguistic typology between the target L3 and the grammars of the L1 and L2 as the most deterministic variable to predict syntactic transfer. In order to test participants' acquisition of the syntactic and semantic properties of the Romance determiner phrases (DP), participants performed a Semantic Interpretation Task and a Context- based Collocation Task. The analysis of the results showed that the two groups were not performing differently and as a consequence, the results supported the TPM, since in the two groups investigated the most typologically similar language varied between the L1 and the L2. The L1-Italian, L2- English and L3- Spanish group transferred the syntactic properties under investigation from the L1 to the L3, whereas the L1- English, L2-Spanish and L3- Brazilian Portuguese transferred the syntactic properties from the L2 to the L3. In sum, the conclusion of the study was that the strongest factor that determines multilingual syntactic transfer is typological proximity.

Gibson, Hufeisein & Libben (2001), on the other hand, investigated the prepositional verbs in German as an L3, with the intent to know whether a second language (English) similar to the L3 would help or not in the production of these verbs. All participants had at least a Mittelstufe 2 level of German competence. They were asked in a post-task questionnaire about their foreign language background, which varied as follows: L1s= Armenian, Bulgarian, Chinese, English, Finnish, French, Georgian, Greek, Korean, Kurdish, Mongolian, Persian, Polish, Portuguese, Russian, Serbo- Croation, Spanish, Swedish, Tagalog, Turkish, Ukrainian; L2s:English, French, German, Latin, Macedonian, Russian, Turkish, Ukrainian; L3/L4s: Arabic, English, French, German,

Japanese, Swedish. The stimuli consisted of 33 German prepositional verbs, divided into two types: direct translation between German and English and verbs with different prepositions in German and English. Participants performed a pen and paper task that required filling in the correct preposition to go with the verb. The task resulted to be slightly easier for the learners who were acquiring German as an L2, whereas having an L1 structurally similar to German made no difference. Another relevant result was that the verbs with equivalent prepositions in German and English were not easier for the learners to produce.

The acquisition of L3 German was also investigated with the aim of analyzing the effect of L2 English proficiency in the learning process (Jaensch, 2009). Participants were Japanese native speakers, and there was also a control group composed by native speakers of German. Participants performed two written tasks and one oral task in German. They also performed a proficiency test in German and another in English. Task 1 was intended to test gender on the determiner, for that, participants had to complete a sentence by selecting a determiner. Task 2 was a written multiple choice task which aimed at gender and case. Task 3 was a multiple choice gap-filling task which aimed at adjective declension. The results of her study show that the higher proficient L2 speakers of English outperformed the lower proficient L2 speakers in the L3 - German tasks, even though English does not have grammatical gender marked on determiners. However, L2 proficiency seemed to be effective only with the low intermediate L3 learners and not with the high intermediate L3 learners. To explain these results, the author argues that it is possible that learners of an L3 who have acquired an L2 to a relatively high level are more sensitive to new features in a third language.

Another study that investigates German as an L3 analyzed syntactic transfer from L1/L2 in the acquisition of object pronouns in German (Falk & Bardel, 2011). Participants were divided into two groups: one group had English as the L1 and French as the L2 and the other group had French as the L1 and English as the L2. Participants were at the intermediate level (B1) of German and were submitted to a grammaticality judgment test and to a correction test. The German word order in main clauses corresponds to the English pattern, whereas the word order in German subordinate clauses corresponds to the French pattern. The results of the study showed that the participants judged the grammatical sentences better than the ungrammatical ones and the results also pointed to the L2 status factor. Because of these findings the authors claim that the L2 has a stronger role than the L1 in TLA, since

in their study, there was evidence of both negative and positive transfer from the L2, but there was no transfer from the L1.

Adjectival inflection was investigated in German as a third language by learners who had Japanese as their L1 and English as their L2 (Jaensch, 2011). Interestingly, the L3 features are not present in either the participants' L1 or L2. The study aimed at testing the L2 status model and the CEM. The tasks adopted for the study were two oral tasks and one oral task. The written task was a forced choice elicitation task in the form of a short story with a total of 72 gaps for insertion of the appropriate inflectional affix. The oral tasks were in the form of games, with participants asking questions that elicited adjectivally modified nouns in singular and plural contexts. The results of the study showed that neither the L2 status model nor the CEM fitted the study. However, the results of the study could support Distributional Morphology supplemented by the claim that learners do not obey the Subset Principle. Jaensch (2011) explains Distributional Morphology by stating that it assumes a minimalist syntax. In her words, "where dependencies are captured through feature valuation, such that each inflection is associated with a bundle of syntactic and semantic features, which are without phonological form" (p.99).

A study (Rothman & Amaro, 2010) set out to investigate syntactic transfer between (1) L1 transfer hypothesis, where the L1 is the only source of influence for the L3, (2) L2 status factor, where it is believed that the L2 works as a filter, blocking transfer from the L1 at the syntactic level and (3) the Cumulative Enhancement Model, which considers that the knowledge from both L1 and L2 can potentially modify the course of L3 syntactic development. However, this model ignores negative transfer and considers only positive or neutral influence at the syntactic level. The focus of the study was on the null subject parameter in the initial state of L3 French and Italian as compared to the initial state of acquisition of L2 French and Italian. Participants' L1 and L2 were English and Spanish, respectively. Participants had their proficiency in Spanish measured, which indicated that they were advanced speakers of the L2. The tasks applied in the study were a grammaticality judgment/correction task and a context/ sentences matching task. Their results point to the L2 status factor as a better predictor of source of influence. Nevertheless, the authors state that, in order to assure this result other pairings of languages would need to be evaluated.

The acquisition of French as a third language by Cantonese-English bilinguals and as a second language by Vietnamese monolinguals was investigated with the goal of analyzing two models of second language acquisition: the Failed Feature Hypothesis (FFH), which predicts that some features that are not present in L1 will not be transferred to L2, and consequently not to L3 and the Full Transfer Full Access (FTFA) hypothesis, which predicts full transfer to L3, but the source is not restricted to L1 (Leung, 2005). The study focused on the formal features associated with the functional category of tense and of participants (bilinguals agreement. The two groups monolinguals) were submitted to three tasks: a composition, a sentence completion task and a grammaticality preference task. The results of TLA point to the FTFA model, and also to the significantly better performance of the bilingual group, attesting that the L3 acquisition process is different from L2.

Shooshtari (2009), along the same lines, investigated the generative models of SLA namely, the Failed Feature Hypothesis (FFH) and the Full Transfer Full Access (FTFA) in the acquisition of English as a third language by Persian monolinguals and Arabic-Persian bilinguals. Translation was used to analyze transfer from the previous languages, L1 and L2, to the target language. The task consisted of ten yes/no questions and thirty-six questions in Persian and Arabic to be translated into English, administered both written and orally. Interestingly, this study observed no effective advantage from bilingualism on the acquisition of a third language. In the matter of CLI, the author concluded that the biggest source of influence in TLA is from L2 and not L1, and show evidence of the FTFA hypothesis.

The acquisition of Spanish middle and impersonal passive constructions was investigated with the SLA perspective and the TLA perspective (Bayona, 2009). The study on the SLA perspective aimed at finding whether there is access to UG in SLA. The participants of this first study were learners of Spanish as an L2, with the first language varying among English, French, Russian and Cantonese. There was also a control group which was formed by Spanish native speakers. The tasks applied in the study were a grammaticality judgment task and a true value judgment task. According to the author the results of this first study were conflicting, since in the grammaticality judgment test the results support the Full Access hypothesis, whereas in the truth value judgment task the results differed and participants presented more difficulty in recognizing middle semantics in reflexive or perfective contexts. The second study focused on the acquisition of middles and impersonal passive constructions in Spanish as an L3, focusing mainly on the participants'L2. Participants of this second study had L1English, L2- French and were learners of L3- Spanish. Participants performed the same tasks of the first study. The results of the second study showed that participants, despite using the L1 English, tended to use French, their L2 as a source language in the learning of L3 Spanish, because French is typologically closer to Spanish. Another important factor affecting CLI was L2 proficiency, higher proficiency in the L2 facilitated the recognition of morphosyntactic and semantic features of the L3. The study also investigated the role of recency, which resulted in a neutral factor as influencing the participants' performance.

The placement of negation in the initial state of L3 Swedish and Dutch was investigated with focus on CLI by comparing learners with different L1s and L2s (Bardel & Falk, 2007). In the target languages, sentence negation is post- verbal, namely verb- second rule, as in most Germanic languages. In order to test transferability from L1 or L2, two groups were chosen: one, whose L1 is a V2 language but the L2 is not; the other whose L2 is a non V2 language, but the L1 is. The languages involved in the study were Dutch and Swedish as L3; Dutch, English and German, as L1 or L2; Albanian, Hungarian and Italian as L1. The results of the study show that the L2 status factor is stronger than the typology factor in L3 acquisition, since the L1 language being V2 did not show successful transfer to L3, whereas the L2 being V2 had a positive result. According to the authors, typological proximity seems to favor transfer from L2 to L3, but not from L1 to L3.

Another study with focus on sentence negation was conducted in Basque schools, with Basque/Spanish bilingual children, who were acquiring English as a third language (Perales, Mayo & Liceras, 2009). Participants were requested to tell two stories while they looked at some pictures in which the content of the story was visually represented. The stories were: 'Frog, where are you?'; 'The Teddy Bear'; 'The Computer Game'; 'The Wolf' and the 'Seven Little Kids' and the movie 'Sleepless in Seattle'. The oral data were transcribed in CHAT format. The results showed that learners tend to reproduce their L1s when using negation in English, which contradicts Bardel & Falk's results, whereas the biggest source of influence was from L2 to L3.

The acquisition of the preterit and imperfect marking in L3 Spanish, by L1 Chinese and L2 English learners was investigated (Chin, 2009). The tasks applied in this study were a morphology test and an acceptability test. The results of this study point to influence of both L1 and L2. However, the strongest source of influence comes from the L2. Another important finding of this study was that even with not highly

proficient speakers of the L2 and the L3, there is influence from L2 to L3.

Foote (2009), on the other hand, investigated whether there was transfer of the contrast in aspectual meaning between Romance past tenses from L1 and L2 to L3. The participants of the study were divided into four groups: (1) native speakers of Romance languages, who formed the control group (2) native speakers of English learning a Romance language as an L2, (3) native speakers of English learning a Romance language as an L3, having a Romance language as an L2, (4) native speakers of a Romance language, having English as an L2 and learning another Romance language as an L3. Participants performed morphology tests in their L2 and L3 Romance languages, participants also performed sentence conjunction judgment tasks. The results of this study point to typological proximity as favoring transfer to L3, since participants transferred from the L1 or the L2 whether it was closer to the L3. The L3 group also showed advantage over the L2 group.

The acquisition of null objects in Norwegian as an L3 by L1-Chinese and L2- English speakers was investigated (Jin, 2009). Participants performed a grammaticality judgment and sentence correction task in both English and Norwegian. The results of the study pointed to a stronger influence of the L1 compared to the L2. The author states that even when the L2 is typologically closer to the L3, the direct influence of the L1 cannot be disregarded.

Another study that investigates the acquisition of null objects is the one by Ranong & Leung (2009). Participants were Chinese L3 learners, speakers of Thai as an L1 and English as an L2. More specifically, there were three groups of participants: (1) native speakers of Thai, with English as an L2 and learning Chinese as an L3, (2) native speakers of British English with Chinese as an L2, (3) native speakers of Mandarin Chinese, who formed the control group. Participants were asked to rate their perception of closeness between English and Chinese and between Thai and Chinese. Participants' answers showed that they perceived Thai as typologically closer to Chinese than English. Participants performed two versions of an experimental task, one in Chinese and the other in Thai. The task consisted of an offline written interpretation task which involved sentences containing embedded null or overt objects. The results of the study are that L1 plays a privileged role in both L2 and L3 acquisition of syntax when the property of null objects in Chinese is concerned. However, the author highlights that the L1 of the study is also the typologically closest to the target language

and consequently typology and L1 are confounded in the L3 case of the study.

Cantonese is the main Chinese dialect spoken by the majority of the people (Tsang, 2009). A study set out to investigate the acquisition of Cantonese as an L3 by native speakers of Tagalog, which is the lingua franca of the Philippines, who were also learners of English as an L2 and learners of Cantonese as an L3. The study focused on Cantonese reflexives. specifically. interpretation more on the monomorphemic and polymorphemic reflexives in two contexts: finite and non-finite. Participants performed a co-reference-judgment task. The most satisfactory explanation found by the author for the participants' preference in opting for a more conservative option, that was the choice for local binding was the 'mininal distance', which is an alternative of instant comprehension of the message.

According to the literature, there are many questions in the field of TLA which remain unanswered, such as whether the models of bilingualism can be applied to trilingualism (Llama et al, 2007) and whether L1 has a privileged role in the acquisition of a third language. There are studies whose results pointed to a stronger influence of the L1 (Ringbom, 2001; Perales et al, 2009; Jin, 2009; Ranong & Leung, 2009), whereas others have found a stronger influence of the L2 (Fouser, 2001; Llama et al, 2007; Shooshtari, 2009; Bardel & Falk, 2007; Bayona, 2009; Chin, 2009; Rothman & Amaro, 2010; Falk & Bardel, 2011). There are still other studies which have found that the greatest source of influence does not come from L1 or L2 but from the typologically closest language (Cenoz, 2001; De Angelis & Selinker, 2001; Herwig, 2001; Carvalho & Silva, 2006, Foote, 2009; Montrul, Dias & Santos, 2011; Rothman, 2011). The aim of the present study is to contribute to this literature with new data about the role of L1 and L2 in the acquisition of English as a third language by speakers of Brazilian Portuguese.

CHAPTER III

METHOD

This study was conducted with the main goal of investigating crosslinguistic influences in the acquisition of English as a third language, as compared to the acquisition of English as a second language. More specifically, this study aims at analyzing the influence of the first and second languages in the acquisition of English as a third language. In order to reach the goal of the study, L2 and L3 learners of English were required to participate in this study. These participants had their proficiency in English measured and were required to fill out a questionnaire in order to provide biographical information. Participants who were found to have the profile for the study and reached the proficiency level required were then asked to perform two narrative tasks, one written and one oral. In the written narrative task, participants were required to write what they saw in a wordless picture story. In the oral narrative task, participants were asked to narrate the story of a film they had seen.

This chapter consists of eight sections which describe and justify the method applied in this study. Section 3.1 presents the objectives and research questions proposed for this study. Section 3.2 presents the participants of the present study. Section 3.3 presents the proficiency test applied to participants in order to measure their level of English. Section 3.4 presents the biographical questionnaire, which gathered information about the participant's first and second languages, as well as information about their interest in learning English. Section 3.5 presents the two tasks performed by participants. Section 3.6 presents the procedures of data collection and section 3.7 presents the procedures for data analysis. The last section of this chapter is section 3.8, which presents the conclusions of the pilot study that was conducted prior to data collection.

3.1 Objectives and research questions

The overall objective of the present study is to investigate the acquisition of English as a third language by native speakers of Brazilian Portuguese who have already acquired Spanish, French, Italian or German as a second language. The specific objectives of the study are (1) to investigate the source language of transfer in the oral and written performance of learners of English as an L3, (2) to investigate how

typological distance, order of acquisition, L2 status and L2 recency affect the production of written and oral narratives in English as an L3 by speakers of Brazilian Portuguese, (3) to investigate if previous knowledge of a second language helps in the learning of a new foreign language.

As already discussed, although the languages mentioned are all Indo-European languages, they evolved from distinct roots, which are subdivisions of the original Indo-European language (Schiltz & Langlotz, 2004; Williams, 1975). Whereas English and German come from a subdivision named Germanic, Portuguese, Spanish, French and Italian are Romance languages, which come from Italic, more specifically Latin (Comrie, 2002). The aim of the present study is to analyze the influence of the L1 (Brazilian Portuguese) or the L2 (Spanish, French, Italian or German) in the acquisition of English as an L3. In order to achieve these objectives, the following questions are proposed:

Research question 1: Is the L1 or the L2 the source of transfer in English as an L3?

Research question 2: How do typological distance, order of acquisition, L2 status and L2 recency affect the oral and written narratives produced in English as an L3 by speakers of Brazilian Portuguese?

Research question 3: Does previous knowledge of a second language help in the learning of a new foreign language?

In order to answer the research questions above, the following hypothesis have been developed, based on the literature (Llama, Cardoso & Collins, 2007; Shooshtari, 2009; Bardel & Falk, 2007; Carvalho & Silva, 2006; Cenoz, 2001; Gass & Selinker, 2008; Maghsoudi, 2008; Leung, 2005; Mehlhorn, 2007):

Hypothesis 1: Participants will transfer more terms from the L2 than from the L1.

Hypothesis 1 is based on previous studies (Llama, Cardoso & Collins, 2007; Shooshtari, 2009; Bardel & Falk, 2007) which show that the L2 influences more TLA than the first language does.

Hypothesis 2: Each factor will affect L3 production of narratives to different degrees, with L2 status as the most relevant factor and L2 recency as the least relevant one. The following order is proposed:

L2 status > typological distance > Order of acquisition > L2 recency

Hypothesis 2 is based on factors that interact with CLI, such as typological distance, order of acquisition, L2 status and L2 recency. (Carvalho & Silva, 2006; Cenoz, 2001).

L2 status is known as the foreign language effect (Cenoz, 2001)

and according to this factor, the L2 would exert more influence than the first language in TLA. According to the factor of typological distance among languages, learners would transfer more terms from the language that is perceived to be more similar to the target language. In the present study, they would transfer more from German, than from the L1 and the others L2s. If the factor of order of acquisition is the most important in influencing TLA, than learners will transfer more from the language they learned first, in the case of the present study, Portuguese. Recency refers to the frequency of use of the language, according to this factor, learners would be more influenced by the language that they use the most.

Hypothesis 3: L3 learners of English will have a better performance than the L2 learners of English.

Hypothesis 3 is based on studies (Gass & Selinker, 2008; Maghsoudi, 2008; Leung, 2005; Mehlhorn, 2007) which have pointed to an advantage that bilinguals have over monolinguals when acquiring an additional language. It is hypothesized that the L3 learners will have a better performance than the L2 learners in the construction of the narrative task.

3.2 Participants

According to the goal of the study and the research questions proposed, this study required two different groups of participants - one group of learners of English as a third language, and one group of learners of English as a second language. The interest in these participants came from the fact that in Brazil, especially in some regions of Santa Catarina, more specifically the cities of Blumenau, Pomerode, Rodeio and Timbó, there is a strong influence from German and Italian because of the immigrants who came to these towns and keep the tradition of the culture and the language, by speaking the language of their immigrant country. It is very common in these places to have bilinguals who are speakers of Brazilian Portuguese and German or Brazilian Portuguese and Italian. And when these bilinguals start to learn English, they are learning a third language, which is different from learning English as a second language.

It is well demonstrated in the literature that the process of acquisition of a third language is more complex than the acquisition of a second language, mainly because in the acquisition of a second language there is the interaction of L1 and L2, whereas in TLA, there are three languages interacting (Cenoz, 2001). The present study was particularly

interested in analyzing CLI in the acquisition of English as a third language and for that the study required one group of learners of English as a third language and another group of learners of English as a second language. By having a group of L2 learners and another group of L3 learners it was possible to compare the results from both groups in the tasks proposed, and analyze the influence of L1 and L2 in the acquisition of English as an L3. This comparison is a valid method for eliciting CLI (Javis & Pavlenko, 2010), whereas there is one group of monolinguals and one group of bilinguals acquiring the same recipient language (English) with different source languages (L1 and L2s).

To be recruited for the present study, participants needed to be learners of English enrolled in an English course at the intermediate level and also have Spanish, French, ³German or Italian as a second language. For the second language learners group (L2G), participants needed to be enrolled in an English course at the intermediate level and could not speak other language besides Portuguese. In order to find these participants, I contacted and visited English schools in the cities of Blumenau, Pomerode, Timbó and Florianópolis. However, as the participants were all volunteers, they could decide not to continue in the research at any time. For this reason, some participants did not come for the activities proposed and others were not within the level required for this study. In the total, 69 students participated in this study. However, since there was a proficiency cutoff point, only data of 31 participants was considered. According to the information provided by participants through the questionnaires it is known that they aged between 15 and 57, mean 24 and that all participants had Brazilian Portuguese as their native language and were divided in two groups: (1) learners of English as a second language, L2G; (2) learners of English as a third language, the L3G. More information concerning these two groups is presented in subsections 3.2.1 and 3.2.2.

3.2.1 The L3 learners of English

This subsection presents the participants of the third language learners group (L3G). This group was formed by 15 participants, 7 men and 8 women, who aged between 16 and 57, mean 24. These participants were all Brazilians, more specifically they were born in the

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³ Participants who were speakers of Spanish and French as an L2 were included in the present study, since many speakers of German and Italian as an L2 were not within the B1 level of English required for the present study.

cities of São José, Florianópolis, Blumenau, Itapiranga, Pomerode, Treze Tílias in the state of Santa Catarina and also in the city of São Paulo, in the state of São Paulo and in the cities of Ponta Grossa and União da Vitória, in the state of Paraná. Currently, these participants lived in the cities of Blumenau, Florianópolis and Pomerode, in Santa Catarina, Brazil, where the data was collected. According to their profession they were 9 students, 1 designer, 1 physician, 1 professor, 1 trainee, 1 administrative assistant and 1 teacher. All of them spoke Brazilian Portuguese as their native language and had Brazilian parents, except for 1 participant whose parents were German and another whose father was from Uruguay. According to their level of instruction, 13,33% were high school students, 53,33% were university students and 33,33% were graduated at university.

All of the participants of the L3G were enrolled in an English course and had learned a second language before starting to learn English. Their second language varied as follows: 7 had German as their L2, 6 had Spanish as their L2, 1 had Italian as an L2 and 1 had French as an L2. All participants who had German as an L2 and one of the Spanish L2 speakers learned these second languages when they were a child; whereas the other five L2 Spanish speakers, the Italian L2 speaker and the French L2 speaker learned their second language after adolescence.

3.2.2 The L2 learners of English

This subsection presents the information concerning the L2 learners of English (L2G). This group was constituted by 16 participants, 9 women and 7 men, who aged between 15 and 46 years old, mean 22. According to their profession, they were divided into 11 students, 1 teacher, 1 federal civil servant, 1 attendant and 1 biologist. According to their schooling level, 18,75% were high school students, 56,25% were university students and 25% were graduated at university. All of them were Brazilian, having Brazilian parents too. They all spoke Brazilian Portuguese as their native language and had no knowledge of another language besides Portuguese and English. Data collection took place in the cities of Blumenau and Florianópolis (Santa Catarina, Brazil) where the participants currently live. However, these participants were born in the cities of São José, Florianópolis, Rio de Janeiro, Blumenau, Taió, Criciúma, Chapecó, Caçador, Rio do Campo, in the state of Santa Catarina, in the cities of Francisco Beltrão and Curitiba, in the state of Paraná, and in the city of São Paulo, in the state of São Paulo.

3.3 The proficiency test

Proficiency in the target language is a key factor when considering CLI (Cenoz, 2001; Ringbom, 2001). When learning a foreign language it is known that beginners refer greatly to the other languages they know and this dependence on the previous languages tends to decrease as proficiency increases (Cenoz, 2001). In the present study, I decided to analyze CLI at level B1 (CEFR) because learners at levels A2 and A1 would not have enough knowledge and experience in English to perform the linguistic tasks proposed in the study. Learners at levels B2 and above would not be appropriate for the purposes of this study because they would be too accurate in the tasks proposed and CLI effects would be rare. The level B1 was chosen on the assumption that, at this level, learners would have the necessary knowledge to perform the tasks proposed at an average level. According to the Teacher's Guide to the Common European Framework (http://www.coe.int/t/dg4/linguistic/cadre_en.asp), at level B1 learners are able to:

- understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc.
- deal with most situations likely to arise while travelling in an area where the language is spoken.
- produce simple connected text on topics which are familiar or of personal interest.
- describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.

More importantly, it was necessary to measure participants' level of English in order to guarantee that they were at the same level of proficiency and that they formed a homogeneous group. The comparison of the results of CLI of the two groups of this study, the group of the L2 learners of English and the group of the L3 learners of English was only possible because they had their proficiency tested. Since the participants of the study should have level B1, the proficiency test chosen to be used in this study was the Preliminary English Test, which was also used in the study of Hining (2010). This test is provided by the University of Cambridge ESOL (part of UCLES) and it is at level B1 of the Common European Framework of Reference for Languages. This is an internationally recognized test which is suitable for learners of all nationalities. The test indeed covers all four language skills listening, speaking, reading and writing. Table 1 shows the Cambridge examinations for the six levels of language proficiency defined by the Council of Europe Common European Framework of Reference for

languages (CEFR).

Table 1 Cambridge examinations and its equivalent for Council of Europe Common European Framework of Reference

Cambridge Main Suite	CEFR levels
Certificate of Proficiency in English	C2
Certificate in Advanced English	C1
First Certificate in English	B2
Preliminary English Test	B1
Key English Test	A2 / A1

source: https://www.teachers.cambridgeesol.org/ts/digitalAssets/117381 Cambridge English_Preliminary__PET__Handbook.pdf

Research carried out by the Association of Language Testers in Europe (ALTE) has shown what learners can do at PET level in different contexts, as can be seen in Table 2.

Table 2 Abilities learners can typically show at PET level

Typical abilities	Listening and Speaking	Reading and Writing	
Overall general abilities	CAN understand straightforward instructions or public announcements. CAN express simple opinions on abstract/ cultural matters in a limited way or offer advice within a known area.	CAN understand routine information and articles. CAN write letters or make notes on familiar or predictable matters.	
Social and Tourist	CAN identify the main topic of a news broadcast on TV if there is a strong visual element. CAN ask for information about accommodation and travel.	CAN understand factual articles in newspapers, routine letters from hotels and letters expressing personal opinions. CAN write letters on a limited range of predictable topics related to personal experience. CAN understand the general	
Work	CAN follow a simple presentation/ demonstration. CAN offer advice to clients within own job area on simple matters.	meaning of non- routine letters and theoretical articles within own work area. CAN make reasonably accurate notes at a meeting or seminar where the subject matter is familiar and predictable.	
Study	CAN understand instructions on classes and assignments given by a teacher or lecturer. CAN take part in seminar or tutorial using simple language.	CAN understand most information of a factual nature in his/ her study area. CAN understand most information of factual nature in his/her study area. CAN take basic notes in a lecture.	

source: https://www.teachers.cambridgeesol.org/ts/digitalAssets/117381_Cambridge_English_Preliminary_PET_Handbook.pdf

Table 3 shows that PET was divided into three papers. It also shows the time demanded for each part of the test, the content and focus of each part.

Table 3
Summary of PET content and overview

Paper	Name	Timing	Content	Test focus
Paper 1	Reading/Writing	1 hour 30 minutes	Reading Five parts test a range of reading skills with a variety of texts, ranging from very short notices to longer continuous texts. Writing Three parts test a range of writing skills.	Reading Assessment of candidates' ability to understand the meaning of written English at word, phrase, sentence, paragraph and whole text level. Writing Assessment of candidates' ability to produce straightforward written English. ranging from producing variations on simple sentences to pieces of continuous text.
Paper 2	Listening	30 minutes (approx.)	Four parts ranging from short exchanges to longer dialogues and monologues.	Assessment of candidates' ability to understand dialogues and monologues in both informal and neutral settings on a range of everyday topics.
Paper 3	Speaking	10-12 minutes per pair of candidates	Four parts. In Part 1 candidates interact with an examiner. In Parts 2 and 4 they interact with another candidate. In Part 3, they have an extended individual long turn.	Assessment of candidates' ability to express themselves in order to carry out functions at threshold level. To ask and to understand questions and make appropriate responses. To talk freely on matters of personal interest.

source:https://www.teachers.cambridgeesol.org/ts/digitalAssets/117381_Cambridge_English_Preliminary__PET__Handbook.pdf

As can be seen in Table 3, the test was divided into 3 papers. Paper 1 consisted of the Reading and Writing. Reading was divided into five parts. Part 1 was a three option multiple choice question where

there were five very short discrete texts where students had to read real world notices and other short texts in order to find the main message. Part 2 was a matching question, where there were five items in the form of descriptions of people to match to eight short adapted- authentic texts. Students should read the text and match to the person being described. Part 3 was a True/ False question, where there were ten items with an adapted – authentic long test. Students should mark true or false for the statements according to the text they read. Part 4 was a multiple choice question, where there were five items with an adapted- authentic long text. Students should answer five multiple choice questions according to the text they read. Part 5 was a four- option cloze test, with ten items, an adapted- authentic text drawn from a variety of sources. Students should complete the text with one word from four options.

The Writing section was divided into three parts. Part 1 was a sentence transformation question, where students were given sentences and then were asked to complete similar sentences using different structural pattern so that the sentence still had the same meaning, they should use no more than three words. Part 2 was based on writing a short communicative message, where students should write a message in the form of a postcard, note or email. The writing should contain from 35 to 45 words. Part 3 was a longer piece of continuous writing, where students had to choose between two questions, an informal letter or a story. They should write about 100 words.

Paper 2 consisted of the Listening part of the test, which was divided into four parts. Part 1 was a multiple choice question where there were short neutral or informal monologues or dialogues and students were given seven discrete 3- option multiple choice items with visuals. Part 2 was also a multiple choice question with a longer monologue or interview where there were six 3- option multiple choice items. Part 3 was a gap- fill question with a longer monologue. Students needed to listen to the information and write one or more words in each space, there were six gaps to fill in. Part 4 is a True/False question with longer informal dialogue. Students should listen and decide whether six statements were correct or incorrect.

Paper 3 consisted of the Speaking part, which was realized in pairs of students. This section was divided into four parts. In part 1 each student interacted with the interlocutor, who asked questions in turn, using standardized questions. Part 2 was a simulated situation where students interacted with each other. Students were given a draw to aid the discussion task. In part 3 a color photograph was given to each student in turn and they were asked about it. Part 4 was a general

conversation where students interacted with each other talking about the theme from Part 3.

A pilot study (section 3.8) was conducted with learners of English that were enrolled in intermediate levels of English schools, in order to determine the range of grade that the participant of this research should have to fulfill the objectives of the study. In this pilot study, participants performed the complete PET test and participants' grade ranged between 55 until 95. The analysis of the written and oral production of these participants showed that the group of participants for this study should have grades which ranged between 65 and 85, which was the cutoff point determined for this study. The analysis of the pilot study also resulted in some modification in the original PET test, mainly because the time demanded for the test was too long (2h and 12 minutes), and students would not have enough available time to perform the test and also to participate in the tasks of this study. In order to shorten the time demanded for the test, a careful consideration of the questions of each part of the test was made. At last, the test was adapted and the final version of the test was the following: the Reading section remained with Parts 3, 4 and 5, the Writing section remained with Parts 1 and 3, the Listening section remained with Parts 1, 2 and 3, and the Speaking section remained with Parts 1, 2 and 3. This adapted PET test demanded a total time of one hour and twenty minutes. Each of the four parts of the test was graded 100. The correction of the test followed the guidelines of the Handbook (PET Handbook for teachers). Participants whose grades ranged below 65 or above 85 did not perform the tasks of this study.

3.4 The biographical questionnaire

In order to gather background information, participants were required to fill out a biographical questionnaire (Peters, 2010; Kramer, 2010). The intent of the questionnaire was to identify individual variables that may interact with CLI. One example of an individual variable that is important to be considered is the acquisitional aspect (Herwig, 2001) of the language. For instance, the L3 learner may have acquired his/her L2 formally or informally, he/she may also have acquired the second language at the same time that acquired the first language or consecutively. Other important aspects are L2 proficiency and L2 input in the environment (Ringbom, 2001).

The questionnaire (Appendix A) included questions about their first, second and third language. It was divided into three main sections.

The instructions in each of these sections already classified the participant in the L2G or in the L3G. The two first sections concerned information about the participants'L2 and the process of acquisition of this second language. More specifically, the two first sections of the questionnaire were designed in order to classify the participant according to the way they acquired their second language. The first part of the questionnaire was designed to participants who had acquired the second language as a child, the early bilinguals. The second part of the questionnaire was designed to participants who had acquired only Portuguese as a child and had acquired the second language after adolescence, the late bilinguals. There were specific questions for each of these two groups of bilinguals.

For the early bilinguals, it was asked whether they considered themselves more proficient in their L1 or L2 and what was the reason for their better proficiency in one of these two languages. It was also asked how they continued developing their L2 and if they had studied this L2 in a language school. They were also asked to self estimate their level of proficiency in their L2. Next, they were asked about their frequency of use of this second language and also about how they used this L2.

For the late bilinguals, it was asked, first, how they had acquired this L2. Next, they were asked about how they continued developing their L2 and whether they had studied this second language in a language school. They were also asked about their frequency of use of this second language and how they use this L2. At last, they were asked to self estimate their level of proficiency in their L2.

The third part of the questionnaire concerned the participants' interest in learning English. This section was divided into 12 questions. First, it was asked to participants the age that they first had contact with English and also the age they had actually started studying English. Next, they were asked about their contact with English before the language course, and their opinion about English, before studying the language and now. They were also asked about the reason why they were studying English, and whether they dedicated some time, besides the English course, for studying the language. After that, they were asked whether they had contact with native speakers of English and if they had been in an English speaking country. They were also asked about their interaction with English besides the language course and their opinion concerning the importance of English.

3.5 Tasks

In order to investigate the influence of the previous languages in the acquisition of English as a third language, the tasks chosen to be used in this study were two narratives, one oral and one written. According to Kellerman (2001) learners, in general, are familiar with stories. Since their early years, children are exposed to stories, and even non- native speakers may feel called upon to relate, describe or tell something. Still according to Kellerman, narratives are extended texts, and the way learners construct narratives allows us to study non-native performance at different levels: syntax, morphology, phonology, discourse, pragmatics, lexis: "...narrators will need to have or will need to compensate for the lack of the requisite discourse- organizational skills as well as the grammatical structures and words needed to bring the story across successfully" (Kellerman, 2001, p. 171).

Kellerman also states that a narrative has more ecological validity as a method of eliciting data because it is a more natural language activity. Given the reasons above, the two tasks chosen to be used in this study were two narratives to be constructed by participants, one oral, based on a spontaneous speech and one written, based on a picture wordless story. Subsections 3.5.1 and 3.5.2 will describe each narrative task in turn.

3.5.1 The written narrative

In the written narrative, participants were required to tell the story as they saw it in the wordless picture story 'Frog, where are you?' (Mayer, 1969). This book has been used by other studies (Cenoz, 2001; Perales *et al*, 2009; Mayo & Olaizola, 2011) in the area of TLA. The story consists of 24 pictures whose main plot is a boy looking for his frog that has disappeared. Participants had 30 minutes to write the story while looking at the sequence of pictures. In the instruction of the task, participants were informed that no draft could be used for this production and that they should write a minimum of 150 words and a maximum of 250 words. The instruction (Appendix B) also informed them that I could not help during the task.

3.5.2 The oral narrative

For the oral narrative, participants were asked to tell the story of a film they had recently seen and that they really liked. Participants were given some suggestions to talk about the film before starting the task (Appendix C). Participants were also informed that they would not have time for prior preparation, that they had from 5 to 7 minutes to tell the story and that I could not help during the task. The stories were audio recorded.

3.6 Data collection procedures

The data collection of this study occurred during the months of April and August 2011. First, I contacted English courses in the cities of Blumenau, Pomerode, Timbó and Florianópolis. I handed in a letter (Appendix D) to the course coordinator of each school visited. At the English schools I invited intermediate English students to participate in the study. I got students' email and arranged individual meetings with them. At this meeting, I gave the consent form (Appendix E) to the participant and I answered the questions that the participant could have about the study.

After that, I applied the proficiency test, before the beginning of the test, I read the instructions to participants, and highlighted that I could not help the participant in any part of the test, I also advised the participant to be cautious about the time limit for answering the test. I took care of the time established for the test. After finished, I immediately corrected the test, and gave a feedback on the participant's performance. Participants whose grades ranged above 85 or below 65, in the proficiency test, were thanked for their participation, but did not continue in the research. However, participants whose grades ranged between the established cutoff points were invited to participate in the tasks of the study. First, participants were required to answer the biographical questionnaire, and I helped with any doubts. After that, participants performed the written task. Before the beginning of the task, I read the instructions to participants and highlighted that I could not help during the task and that the time limit for the activity was of 30 minutes. After that, participants performed the oral task, once again the instruction of the task was read to the participant. I recorded the story told by the participant that should last from 5 to 7 minutes.

3.7 Data analysis

This section comprises three subsections, which present the procedures applied in the analysis of the data obtained of the biographical questionnaire and the two tasks performed by participants.

3.7.1 The biographical questionnaire

The analysis of the biographical questionnaires had three main purposes: (1) to gather information concerning the participants' profile, (2) to gather information about the participants' L2, and (3) to gather information about the participants' interest as learners of English. First of all, information regarding the participants' profile, such as participants' age, profession and nationality, was analyzed. Next, the answers provided by participants were analyzed in order to find information concerning the factors which may interfere with CLI. It was important to know which the participants' L2 was, and how he/she had acquired this L2. Information about the participants' proficiency in the L2, L2 recency (frequency of use) and how the participant uses this L2 was also analyzed.

At last, information concerning the learning of English was gathered, such as the participants' reason for learning English, the age at which they started learning English and also how they interact with English besides the English course. Participants' opinion about English was also considered. The information obtained through the biographical questionnaires helped in the discussion of the results of CLI of the written and oral tasks.

3.7.2 The written narrative

Each of the stories written by participants was carefully analyzed, and this analysis was not only a search for errors, since CLI cannot be perceived only in errors. Ringbom (2001) states that even advanced learners make use of patterns based on their L1. Because of that, I highlighted in the text produced by participants all instances of CLI, looking not only at words, but at phrase constructions, and patterns that could resemble the participants' first or second language.

The analysis of these instances of CLI was carried out with a focus at the lexical and syntactic levels. According to Ringbom (2001), the lexical area is the most significant when the influence of the L2 is considered. In order to look for instances of CLI at the lexical level, I highlighted, in the text produced by the participants, words that were not in the target language; sentences that were not commonly used in the target language and the influence of L1 and L2 in the choice of words. The analysis also focused on the influence of L1/L2 in the construction of phrases and expressions that resulted in an uncommon or inappropriate combination in English. The analysis also looked at

instances of CLI within English that is when the participant searches for the unknown word within English and ends up using a word that is not the target word. This phenomenon was named intrusion.

At the syntactic level, I also looked for patterns that resembled the participants' first or second language, classifying each of these instances of CLI into grammatical categories. After that, I joined all these instances of CLI, both at the lexical and syntactic levels and looked at the amount of cases for each level and decided to focus the analysis in the categories that occurred the most. Table 4 shows the categories in which the data was classified in the written task, concerning CLI.

Table 4
Categories of data analysis in the written task

LEXICAL LEVEL	SYNTACTIC LEVEL
Transfer of form	CLI in five grammatical categories
borrowings	plural form
foreignisings	adjective placement
Transfer of meaning	prepositions
calque	articles
semantic extensions	pronouns
Intrusion within English	

Ringbom (2001) defines the two types of transfer at the lexical level: transfer of form and transfer of meaning. In transfer of form the learner is influenced by a formally similar L1 or L2 word, instead of the intended one. Transfer of form can be manifested in terms of borrowings or foreignisings (Cenoz, 2001). According to Cenoz (2001), borrowing refers to the use of a word in the L1/L2 with its original form, whereas foreignising will be the use of a word in the L1/L2 with some adaptation.

Ecke (2001) states that the most common type of transfer is transfer of form, that is when the learner perceives some structural similarity between the L1 or L2 word and the intended word in the L3. However, when this process of lexical search fails in the form, the learner may search for a word in the L1 or L2 at the meaning level. Ringbom (2001) also states that transfer of meaning is a more complex process than transfer of form, and explains two types of transfer of meaning: semantic extensions and calques. In semantic extensions, the learner assumes that the meaning of a word in the L1 or L2 corresponds to the meaning of the L3 word. An example brought by Ringbom (2001,

p.64) would be the use of the word "tongue", for "language". Concerning calques, there is the combination of two or more lexical units with a third one, based on an L1 or L2 pattern that differs from the target language. An example brought by Ringbom (2001, p. 64) is: "My uncle never married, he remained a youngman all his life", where youngman would mean bachelor.

The analysis also found instances of CLI within English that is when the participant searches for the unknown word within English and ends up using a word that is not the target word. According to Ecke (2001), a lexical error is the use of an intended target word by a different word, which is defined as an intrusion, and for a third language learner this intrusion can be originated from L1, L2 or L3.

According to Jarvis & Pavlenko (2010) CLI at the syntactic level do not affect only word order, other grammatical categories may also be influenced, as was the case in the present study. At the syntactic level, CLI affected five grammatical categories: plural form, adjective placement, articles, prepositions, and pronouns. At the category of plural form, participants had difficulty with adjective inflection, since in English grammatical number or plurality is not indicated in the adjectives (Jaensch, 2011). The category of adjective placement comprised cases of adjectives in an inappropriate position in the sentences. In English, adjectives that express a property that is inherent to the referent of the head noun are named attributive- adjectives and they come before the head noun (Cowan, 2008, p. 241). At the category of prepositions, participants had difficulty, mainly, with prepositional verbs. Prepositional verbs are a two- word unit that consists of a transitive verb and a preposition; the verb and the preposition normally have the meaning of a single- word verb. (Cowan, 2008). Cowan (2008) explains that when a prepositional verb in English has a meaning equivalent to the verb in the learner's L1 that lacks a preposition, the learner may omit this preposition in English too (Cowan, 2008, p.181).

At the category of articles, participants had difficulty in the use of definite articles. In English proper nouns, more specifically personal names are generally used with zero article (Yule, 2009; Cowan, 2008). The category of pronouns comprised cases of inappropriate use of the possessive adjective. These cases of CLI were a result of the differences between the pronoun system of the learner's previous language and the target language. There were also cases of omission of the subject pronoun, which is not permitted in English grammar, since English does not allow null subjects.

The lexical and syntactic errors of both groups were compared in

order to analyze whether the error was a result of influence of Portuguese (L1) or of the participants' L2. The results of the influence of L1 and L2 were also analyzed in the light of the answered questionnaires, where participants reported their frequency of use and estimated level of proficiency in their L2. The results of CLI were also compared to the literature.

The analysis of participants' written production also presented grammatical errors that were not consequence of the influence of L1 or L2. Instead, they were consequence of overgeneralization of grammatical rules from English. These grammatical errors were organized into the following grammatical categories: (1) tense/ aspect, (2) negation, (3) plural, (4) prepositions, (5) articles, (6) pronouns, (7) verb form and (8) word order. According to Cowan (2008), tense and aspect are the two concepts used to describe time and action in verbs. These two concepts are known as difficult areas for the English learners (Cowan, 2008, p. 350). The category of negation comprised errors that reflect the stages of learning negation in English (Hawkins, 2006). The category of plural form comprised errors of concordance in number with simple nouns. The category of prepositions comprised three different errors: omission of preposition, inappropriate use of a preposition and, unnecessary use of a preposition.

At the category of articles, there were errors related to article missing, inappropriate use of a/an and the and unnecessary use of the article. The category of pronouns comprised errors of inappropriate use of the pronoun related to: gender, object pronouns, subject pronouns, possessive adjectives, singular/plural pronouns, and relative pronouns. The category of verb form comprised cases of the 3^{rd} person singular and the inappropriate formation of the verbs in the past form, where participants regularized the past form of irregular verbs. At the category of word order, there were errors related to the inappropriate formation of sentences in English, which is a Subject- Verb- Object (SVO) language (Hawkins, 2006).

3.7.3 The oral narrative

The analysis of the oral narrative followed the same criteria of the analysis of the written narrative. However, in the oral narrative the recorded stories had to be first transcribed into English. The oral production of participants was transcribed until 7 min, even if the participant spoke longer. After that, I analyzed each of the stories narrated by participants in order to look for instances of CLI. In this

analysis I pursued not only errors, instead, I looked at words, sentence constructions and patterns that could resemble the participants' first or second language. As in the written task, the analysis of CLI in the oral task also focused at the lexical and syntactic levels, as can be seen in Table 5.

Table 5
Categories of data analysis in the oral task

LEXICAL LEVEL	SYNTACTIC LEVEL		
Transfer of form	CLI in five grammatical categories		
code switching	prepositions		
borrowings	articles		
foreignisings	pronouns		
Transfer of meaning	word order		
calque	tense		
semantic extensions			
Intrusion within English			

At the lexical level the cases of CLI were classified practically into the same categories as in the written task, except for the phenomenon of code switching that occurred only in the oral task. Code switching refers to the use of entire sentence in the L1 or in the L2 but not in the target language (Cenoz, 2001). The other categories of CLI at the lexical level were borrowings and foreigneisings concerning transfer of form and, calques and semantic extensions concerning transfer of meaning. As already explained in the previous section, borrowing refers to the use of a word in its original form in the L1 or L2, but not in the target language, and foreigneising refers to the use of a word in the L1 or L2 but with its modified form (Cenoz, 2001). Semantic extension refers to the meaning transferred to a single word, and, calque refers to the use of two or more words with the pattern of the L1/L2 that differs from the L3 (Ringbom, 2001).

As can be seen in Table 6, at the syntactic level, cases of L1 and L2 influence were classified in the grammatical categories of preposition, articles, pronouns, word order and tense. At the category of prepositions, participants omitted prepositions due to differences in their previous languages and the target language. At the category of articles, participants used definite articles in front of proper names and possessive adjectives. At the category of pronouns, participants had the same difficulties as in the written task: the use of the inappropriate possessive adjective and cases of omission of the subject pronoun. The

category of word order comprised cases of adjective placement, and also sentence structure that were not in agreement with the SVO order in English. The category of tense comprised cases where Present Perfect was used where it would be more appropriate to use Past Simple.

The analysis of participants' oral production also presented grammatical errors that were not consequence of influence of L1 or L2. Instead, they were consequence of overgeneralization of grammatical rules from English. These grammatical errors were organized into the same grammatical categories as in the written task: (1) tense/aspect, (2) negation, (3) plural form, (4) prepositions, (5) articles, (6) pronouns, (7) verb form and (8) word order. As already mentioned, tense and aspect are two concepts known as difficult areas for the English learners (Cowan, 2008). As in the written narrative, participants had much difficulty at the category of tense and aspect. At the category of negation, there were errors that reflect the stages of learning negation in English (Hawkins, 2006). The category of plural form comprised mostly errors of concordance in number with simple nouns. There were also errors of inappropriate formation of the plural word, where participants overgeneralized the rule of plural formation by adding the suffix –s.

The category of prepositions comprised three different errors: omission of the preposition, inappropriate use of a preposition and, unnecessary use of a preposition. The category of articles comprised errors related to article missing, inappropriate use of *a/an* and *the* and unnecessary use of the article. The category of pronouns comprised difficulties with: gender of pronouns, subject pronouns, object pronouns, relative pronouns and, singular/plural pronouns. The category of verb form comprised difficulties related to the 3rd person singular and cases of regularization of the irregular past form of the verbs. At the category of word order, there were errors related to the inappropriate formation of sentences in English, which is a Subject- Verb- Object (SVO) language (Hawkins, 2006).

3.8 Pilot study

In order to test the instruments of this study, a pilot was carried out during the month of March, 2011. Sixteen learners of English participated in this pilot study, ranging from 15 to 46 years old, mean 24. All of them were regularly enrolled in an English course and had Portuguese as their native language (L1). Ten of them were learners of English as a third language, having Spanish, German or Italian as their second language. The other 6 participants were learners of English as a

second language. The intent of the pilot study was to test all the instruments of this study prior to the data collection phase. During this part of the study, participants filled out a questionnaire and performed the proficiency test and the two narrative tasks.

First of all, participants performed the proficiency test Preliminary English Test (PET). The test consisted of four parts, Reading, Writing, Listening and Speaking. The Reading part consisted of three sections, the Writing part consisted of four sections and, the Listening and Speaking consisted of three sections each, as described in section 3.3. The test demanded approximately two hours and twelve minutes. After performing the proficiency test, students were required to fill out a questionnaire. The questionnaire contained questions about the students'L2 and their interest in learning English. Notes were taken of all doubts that students had while answering the questionnaire in order to improve the quality of the questions. The last part of the pilot study consisted of two narratives that participants had to construct. One narrative was performed orally and the other was written. In the oral narrative, students were recorded while telling the story of a film they had recently seen. In the written narrative, participants had to construct a story based on a sequence of pictures from the book "Frog, where are you?" (Mayer, 1969).

The analysis of the results of the pilot study led to some changes in the instruments. First of all, the time demanded for the proficiency test was problematic, since students could not perform the tasks and the test in the same day and they were not available to come in a second meeting to perform the tasks. To solve this problem, a careful analysis of the test and its Handbook (PET Handbook for teachers) was done. After analyzing the goals of each section of the test, the sections which had similar goals and similar question structure were taken away in order to shorten the time demanded for performing the test. As a result, the Reading part ended with three sections, in the Writing part two sections remained, the Listening part had one section taken away and the Speaking part remained the same, with three sections. The final version of this adapted test demanded one hour and twenty minutes. Another very important analysis taken from the pilot study was the average grade needed for the data collection. In the pilot study, participants' grades varied from 55 to 95, mean 77,5. The analysis of the production of participants whose grades ranged below 65 showed that participants could not effectively accomplish the task proposed. As referring to the participants whose grades ranged above 90, the production was too well formulated, and CLI effects were rare, which was also not satisfactory

for the intent of the study. The conclusion of these data was that the target public for the study should be students whose grades ranged between 65 and 90. However, it would be a very wide variation, which was shortened to 65 to 85.

Concerning the questionnaire, the analyses of the answers provided by participants together with their own complains and suggestions culminated in some modifications in the questionnaire. Questions were made clearer and some doubts that remained from the answer of participants were solved by adding more questions. For the narrative tasks, the instructions were improved, as to make the task more understandable. The time needed for each task was also delimited according to the mean time needed for participants, during the pilot study.

CHAPTER IV

RESULTS

This chapter presents the results of the study conducted with second and third language learners of English which aimed at analyzing the influence of the first and second languages in the written and oral production in English of these two groups of participants. More specifically, this study pursued the following research questions: (1) Is the L1 or the L2 the source of transfer in English as an L3? (2) How do typological distance, order of acquisition, L2 status and L2 recency affect the oral and written narratives produced in English as an L3 by speakers of Brazilian Portuguese? (3) Does previous knowledge of a second language help in the learning of a new foreign language? In order to answer the research questions proposed, this study had two groups of participants: one group of L2 learners of English and one group of L3 learners of English, the two groups performed two tasks: in the written task, participants were required to write a story based on a wordless picture book named "Frog, where are you?" (Mayer, 1969), in the oral task, participants were audio recorded while they narrated a story of movies they had recently seen.

The analysis of the written and oral narratives revealed instances of crosslinguistic influences (CLI) at the lexical and syntactic levels. This chapter presents the analysis of participants' performance on these two narrative tasks and is divided into seven sections. Section 4.1 presents information about the participants' performance in the proficiency test. Section 4.2 presents the participants' information obtained through the biographical questionnaire. Section 4.3 presents the descriptive analysis of the written task. Section 4.4 presents the descriptive analysis of the oral task. Section 4.5 presents the discussion and interpretation of the results from both the written and oral tasks. Section 4.6 presents a comparison between the results of the present study and those found in the literature. The last part of this chapter is section 4.7, which answers the research questions pursued.

4.1 The proficiency test

This section presents the results of the adapted version of the Preliminary English Test (PET) applied to participants. Participants' level of English was measured in order to guarantee that they were at a level in which they would perform the oral and written tasks reasonably

generating the data necessary for this study, since it was assumed that, at this level, participants would be able to perform the two tasks of this study. In addition, the assessment of participants' proficiency was also necessary to guarantee that they were a homogeneous group in terms of communicative and linguistic competence in English. By having two groups, one of L2 learners of English and one of L3 learners of English who were at the same level of proficiency in English, it was possible to compare the effects of first and second languages in the production of English as an L3 as compared to the production of English as an L2. As already mentioned, proficiency in the target language is an important aspect to be considered when investigating CLI since less proficient learners tend to transfer more elements from their previous languages than learners with higher levels of proficiency (Cenoz, 2001).

The adapted version of the PET performed by participants consisted of four parts, Reading, Writing, Listening, and Speaking. Each part of the test was graded 100. An arithmetic average was calculated and the participant's final grade should range between 65 and 85, which were the cutoff points determined by the pilot study (section 3.8). Participants who scored below 65 or above 85 were not included in the study. The grades obtained by participants at the proficiency test show that they form a homogeneous group of participants with regard to proficiency in English. The results of the proficiency test also showed that participants were at level B1 from the Common European Framework of Reference.

4.2 The biographical questionnaire

Third language acquisition is a very complex process that can be affected by the interaction and interference of many variables (Cenoz, 2001). Factors such as typological distance among languages, recency, and proficiency have to be considered in the languages that the learner possesses (Bayona, 2009). In order to gather information concerning the variables that may interact in the acquisition of a third language, such as distance, recency and proficiency, questionnaire typological a (Appendix A) was designed and applied to participants. More specifically, the objective of the questionnaire was to determine which the participants's L2 was, how he/she acquired this language, and how the participant made use of this second language. Another important factor which may interfere in the results of CLI is proficiency in the L2. Since it was not feasible to measure each participant's proficiency in the L2, this information was obtained through a self- estimation question. This method was also used by Bayona (2009). The questionnaire addressed the participants' interest in learning English as an L3.

This section presents the most relevant information obtained through the questionnaire and is divided into three subsections. Subsection 4.2.1 presents the information about the L2s of the L3G. Subsection 4.2.2 presents information about the learning of English from both the L3G and the L2G. Subsection 4.2.3 summarizes the most relevant information obtained through the questionnaire.

4.2.1 Information concerning the L2s of the L3G

The L3G consisted of 15 L3 learners of English with different second languages, which varied as follows: 7 participants had German as the L2, 6 participants had Spanish as the L2, 1 participant had Italian as the L2, and 1 participant had French as the L2. When asked about how they learned their second language, 7 speakers of German as an L2 and one of the L2 speakers of Spanish reported having learned the L2 as a child, whereas the other 5 L2 speakers of Spanish and the L2 speakers of French and Italian learned their L2 after adolescence. For this reason, participants of the L3G were divided into early and late bilinguals, the former being the ones who learned the L2 as a child and the latter, those who learned the L2 after adolescence. The questionnaire did not specify the age on which childhood and adolescence ranged.

Since the bilingual group differed in the way of acquisition of their second languages, specific questions were made to each bilingual group, the early and the late bilinguals. When asked about how they had acquired their L2, the majority of the 8 early bilinguals reported that they acquired their L2s mostly speaking with their families and their community. They also reported they continued developing this L2 mainly with their family. In addition, 62,5% of the early bilinguals also reported having studied the L2 in a language course besides having learned the language with their families. In the questionnaire, the early bilinguals were asked whether they considered themselves more proficient in their L1 or in their L2. In case the answer was positive, it was asked the reason for this better proficiency in one of the languages. For this question 75% of the early bilinguals reported being more proficient in their L1- Portuguese than in their L2s and the reason for that was that Portuguese was the language spoken by the teachers at school and also by part of the community. Even though they are more proficient in their L1, they self- estimated their proficiency in the L2 as very good, which was the highest option for this question. They also reported using more Portuguese than their L2. However, 75% of the early bilinguals reported using their L2 frequently.

The questionnaire for the late bilinguals also required information concerning how they acquired their L2. Most of them (71,4%) reported that it was by studying the language at school and in a language course. They also reported that they continued developing their L2 mostly by travelling, reading, watching films, and using the language at home or at school. A very important piece of information about the late bilinguals of the present study concerns their use of the L2 which was reported to be less frequent when compared to the use reported by the early bilinguals. It is also worth mentioning that the late bilinguals self-estimated their proficiency in the L2 as regular, differently from the early bilinguals.

The comparison of the information about the L2s of the early and late bilinguals shows that the early bilinguals are more proficient in their L2s and also use their L2s more frequently than the late bilinguals. In other words, according to the information provided, if L2 recency and L2 proficiency are factors which interfere in CLI as mentioned in the literature (Bayona, 2009; Chin, 2009; Jaensch, 2009), the early bilinguals will demonstrate to have more influence of the L2 than their late bilinguals counterparts. In the present study, when performing written and oral narrative tasks in the L3, the early bilinguals indeed demonstrated more influence of their L2 than their late bilinguals counterparts.

4.2.2 Information concerning the participants' interest in learning English

The analysis of the questionnaires showed that participants of the L2G and of the L3G had a similar mean age, 24 for the L3G and 22 for the L2G. All participants were Brazilian and the great majority of them (13 out of 15) had Brazilian parents too, who were speakers of Brazilian Portuguese. In both groups, the majority of the participants were university students and all of them were enrolled in an English course.

The information concerning the learning of English from both the L3G and the L2G share some similarities. Participants of both groups had their first contact with English between 7 and 14 years old and 60% of the participants of the L3G actually started learning English between 14 and 21 years old, whereas participants of the L2G started learning English between 7 and 21 years old. For both groups the greatest source of contact with English was the school, films, music, video games, the

internet, radio and TV.

Participants were also asked about the reasons why they study English. They reported that they wanted to know the language to travel, to work, to study and also for leisure. I also intended to know if the source of English for these participants came from native or non- native speakers of the language. For that, participants were asked whether they had contact with a native speaker of English and if they had already been in an English speaking country. 66,66% of the participants of the L3G reported having had no contact with native speakers of English whereas 68,75% of the participants of the L2G reported having had contact with native speakers of English. However, 86,67% of the participants of the L3G and 87,5% of the participants of the L2G reported not having been in an English speaking country yet.

Participants were also asked in which situations besides the English course, they had contact with English. The answers were practically the same for both groups: they interact with English in the following order of importance (whereas 1 is the most important and 5 the least important): 1) by listening to music, 2) by watching films, 3) by reading, 4) by talking to other students or English speakers, 5) by playing video game. Participants also reported that, besides the English course, they dedicate from one to two hours a week to study English.

It is important to mention that most of the participants reported having changed their opinion concerning English. They reported that, before learning English they thought it was a difficult language, but now, after having learned the language they changed their opinion: they think that English is not difficult. To illustrate, I transcribe below the answer provided by one of the participants when asked in question 12: "What was your opinion about English before starting the English course? Has this opinion changed?

P 15: "My opinion was that it was a difficult language to be learned, with too much slang. However, it becomes easier as you learn it."

Participants were also asked about the importance of English, question 19: "In your opinion, is English important in the current world? Why?". To illustrate, I transcribe below the answer provided by one of the participants:

P 1: "English is important for being a popular language, that permits communication with practically people from all over the world, moreover, the biggest amount of information are in English and they are produced by countries where the official language is English."

4.2.3 Summary of the section

The 31 questionnaires showed that the participants of the L2G and the L3G have a similar profile; in general, they are young adults, university students who interact with English through media which is their greatest source of contact with English. These participants are aware of the importance of knowing English and they seem very positive in learning the language. However, they haven't had much experience with native speakers of English or in an English speaking country. From the L3G it is important to consider the information concerning the different L2s they speak, how they acquired their L2s and how frequently they use these L2s. The most relevant aspect of the questionnaire given to the participants of the L3G was their classification between early and late bilinguals. Still concerning the information of the L3G participants of the early bilingual group reported being more proficient in their L2 than it was reported by their late bilinguals counterparts. In addition, the early bilinguals reported using their L2s more frequently than it was reported by the late bilinguals. As will be seen, this information will help to explain the results of the present study, concerning the greatest influence of the L2 demonstrated by the early bilinguals when compared to the late bilinguals.

4.3 Descriptive analysis of the written task

This section focuses on the descriptive analysis of the written task, which required participants to write a story based on a wordless picture book named "Frog, where are you?" (Mayer, 1969). Participants were given a maximum of 30 minutes to write the story they were seeing in the pictures of the book. The stories written by participants varied from 126 to 478 words, means of 193 words for the L2G and 213 words for the L3G, which was not considered as a relevant difference in the amount of words written by each group of participants. Each story was analyzed in order to find evidence of the influence of the first or the second language in their written production in English. The analysis found cases of CLI at the lexical and syntactic levels and also errors that are not necessarily related to the participants' first or second language, but to the process of English language learning.

This section presents the results of CLI in the written task and it is divided into four subsections. Subsection 4.3.1 presents the analysis of the written task at the lexical level. Subsection 4.3.2 presents the analysis of the written task at the syntactic level. Subsection 4.3.3

presents the grammatical errors from within English of participants. Subsection 4.3.4 summarizes the main findings of this task.

4.3.1 CLI at the lexical level

This subsection presents the instances of CLI found at the lexical level in the written narratives produced by the two groups. These results show the influence of the first and second languages in the written production of these participants and also instances of influence within the target language, English. The number and classification of CLI at the lexical level are presented in Table 6.

Table 6
Crosslinguistic influences at the lexical level in the written task

	L	2G	L3G				
	L1 int	L1 influence		L1 influence L		2 influence	
Transfer of for	rm						
borrowings	0	0%	4	9%	1	2,3%	
foreignisings	2	5,6%	2	4,5%	0	0%	
Transfer of mo	eaning						
semantic extensions	3	8,3%	1	2,3%	0	0%	
calques	6	16,7%	5	11,4%	0	0%	
•	L2(English	n influence)	L3(Eng	lish influer	nce)		
intrusion	25	69,4%	31	70,5%	0	0%	
TOTAL	3	36		44			
N=]	16		15			

Note: N= *number of participants*

Table 6 shows that the number of instances of CLI at the lexical level was slightly higher for the L3G (44) when compared to the number of instances of CLI of the L2G (36). Two types of transfer were found in the written narratives: transfer of form and transfer of meaning. Transfer of form was divided into borrowings and foreignisings, whereas transfer of meaning was divided into semantic extensions or calques.

As already explained, borrowing refers to the use of a word in its original form in the L1 or L2, but not in the target language, in this case, English (Cenoz, 2001). As can be seen in Table 6, the L2G presented no instances of borrowings, whereas the L3G presented 5 instances, 4 of them being influence of the L1 and 1, influence of the L2. The following examples show the terms transferred from the participants'L1-Portuguese which were classified as borrowings:

P25: Then, a coruja flew over me.

P69: They found only bees and a castor in the hole.

The use of a word in Portuguese in the middle of an English sentence shows that participants wanted to tell the story of the "frog" and when they did not know or did not remember the word in the target language they used the word in Portuguese so they could continue their narrative. According to Kellerman (2001), when narrating a story the learner will compensate the lack of words necessary to successfully tell the story by referring to his/her knowledge of the previous languages he/ she possesses. As illustrated above, learners of the present study compensated their lack of knowledge of the vocabulary necessary to tell the story by using their first language. If they had sufficient knowledge of the vocabulary needed, the words in bold would be replaced by their corresponding items in English, and a possible realization of the production above would be:

Then an **owl** flew over me
They found only bees and a **beaver** in the hole.

The use of a word from the L1 or L2 with its modified form was classified as a foreignising (Cenoz, 2001), and at this category, there were 2 cases for each group, both L1 influence. The following sentence illustrates one case of a foreignising found in the L2G:

P43: In the sequence, the boy found a cerve.

The word *cerve* does not exist in Portuguese or English. Instead, *cerve* is a modification of the word *cervo* from the participants'L1-Portuguese. However, the intended word was *deer*. Since the participant did not know or did not remember the intended word, he recurred to the phenomenon of foreignising. If the participant had reached the intended word, a possibility for the sentence above would be:

In the sequence, the boy found a deer.

In short, the results of transfer of form in the written task show that the L3G had more instances of CLI (7) than the L2G (2). However, this difference was not a result of influence of the L2, since there was one single case of L2 influence in the L3G. Instead, the L3G presented more cases of CLI based on the first language than the L2G, where transfer of form is concerned.

As regards transfer of meaning, there were cases of semantic extensions which are a result of the meaning of a word from the L1 or L2 transferred to the L3-English word, resulting in an erroneous use of

that word (Ringbom, 2001). At this category, there were 3 instances of L1 influence for the L2G and 1 instance for the L3G. One example was the use of *have* meaning *there is*. This phenomenon occurs because in Portuguese the verb *ter* (to have) assumes both the meaning of existence and possession (Castilho, 2010, p. 403). Participants transfer this use from their L1 to the target language, as can be seen in the following example:

P3: In the hole **have** a chipmunk. No buraco **tem** um esquilo.

However, in English *have* is used only to indicate possession, and not existence. In order to indicate existence the most appropriate sentence would be:

In the hole there is a chipmunk.

Semantic extension is also very common when the word is a false cognate, as in the example found in the L2G, the use of the word *parents*, meaning *relatives*, as in the following example:

P10: The frog was happy with his parents.

This phenomenon occurs because in Portuguese the word used for relatives is parentes. Still regarding phenomena of transfer of meaning, it was found in the participants' narratives, uncommon combinations of two or more words in English based on the meaning or on a pattern of the participants' L1. This phenomenon is named calque (Ringbom, 2001). The number of transferred phrases at this category was quite similar for both groups: there were 6 instances for the L2G and, 5, for the L3G, and all of them were influence of the L1. A very frequent example found in the participants' written narratives was the influence of Portuguese in the use of the verb to go combined with other verbs, which is a possibility from Portuguese (Pretérito Perfeito -Castilho, 2010, p. 450). However, in English these constructions with the verb to go based on a pattern from Portuguese resulted in an uncommon combination, as can be seen in the following examples of the participants' narratives, presented together with their correspondent sentences in Portuguese:

P50: with much caution, he went look for the frog com muito cuidado ele foi procurar pelo sapo

P49: Barney went ask to the bees. Barney foi perguntar às abelhas. P5: Tom and his dog went search for the frog. Tom e o seu cachorro foram procurar pelo sapo.

Differently from the results of transfer of form, when transfer of meaning is concerned the number of CLI for the L2G was higher than for the L3G: there was a total of 9 cases for the L2G and, 6, for the L3G. It has also to be mentioned that these 15 cases of CLI were all based on the first language of these participants. There were no cases of transfer of meaning based on the L2. It is also evident that participants presented more instances of transfer of meaning – semantic extensions and calques – (15) than instances of transfer of form – borrowings and foreigneisings – (9) and that L2 influence was manifested only in one case of transfer of form.

Table 6 also presents cases of intrusion within the target language, English. This phenomenon occurs when the learner uses a word that is not the intended one in the target language (Ecke, 2001). The following examples illustrate this phenomenon. Participant P41 used the word *saw* instead of the word *looked*, and P54 used the word *felt* (past tense of feel) instead of the word *fell* (past tense of fall).

P41: He went to the window and **saw** along the garden. He went to the window and **looked** along the garden

P54: The little boy **felt** down. The little boy **fell** down.

The overall results of CLI at the lexical level point to a significant influence of the first language and from within English, the target language. According to these results, the lexical selection of the participants comes first from the target language; then from the first language, and in a very small proportion from the second language (German), in the case of learners of English as an L3.

The results also show that the L3 learners of English had more cases of CLI than the L2G, 44 compared to 36, in the total. A possible reason for that may be the more complex system involved in the lexical selection of the L3-English learners when compared to the L2-English learners. According to Herwig (2001), L2 or L3 lexical selection might be a conscious process of consideration of several alternatives, and the complexity involved in these processes certainly increases with the number of languages a person speaks, which may be the reason for a higher number of instances of CLI for the L3 learners, since the acquisition of a third language is a more complex process than the acquisition of a second language (Hammarberg, 2001; Dewaele, 2001;

Ecke, 2001; De Angelis & Selinker, 2001; Herwig, 2001; Leung, 2005; Carvalho & Silva, 2006; Tremblay, 2006; Melhorn, 2007; Bardel & Falk, 2007; Maghsoudi, 2008).

4.3.2 CLI at the syntactic level

This subsection presents the results of CLI found in the written narratives at the syntactic level. At the syntactic level only cases of L1 influence were manifested for both the L2G and the L3G. Table 7 shows the results of the cases of CLI at the syntactic level which were divided into five grammatical categories.

Table 7
Crosslinguistic influences at the syntactic level in the written task

E	2		
	L2G	L3G	
	L1 influence	L1 influence	
Plural form	1 5,9%	0 0%	
Adjective Placement	4 23,5%	0 0%	
Articles	1 5,9%	1 4,2%	
Prepositions	5 29,4%	4 16,7%	
Pronouns	6 35,3%	19 79,1%	
Total	17	24	
N=	16	15	

Note: N= *number of participants*

As can be seen in Table 7 the instances of CLI at the syntactic level were divided into five categories: 1) plural form, 2) adjective placement, 3) articles, 4) prepositions and 5) pronouns. The first category of Table 7 is plural form/concordance, in which there was one case in the L2G that reflects the use of plural from Portuguese. This case is exemplified below together with its correspondent sentence in Portuguese:

P46: The dog let the bees angries.

O cachorro deixou as abelhas bravas.

In Portuguese the adjective is inflected to agree with number and person (Castilho, 2010 p.511), which does not happen in English (Jaensch, 2011). In the example above, the learner transferred the inflection of adjectives from Portuguese to English, resulting in the form *angries*. An alternative for the sentence above would be:

The dog let the bees angry.

The second category is related to adjective placement. There were 4 cases of adjective placement in the L2G that reflect the order of adjectives in Portuguese, where it is possible to have the order noun + adjective and also adjective + noun (Castilho, 2010, p. 517). The following example shows the influence of Portuguese in the order of adjective/noun:

In English, differently from Portuguese, adjectives that express a property that is inherent to the referent of the head noun are named attributive- adjectives and they come before the head noun (Cowan, 2008, p. 241). The sentence deviates from grammatical English and an alternative version for this sentence would be:

The third category is that of articles, where participants transferred from Portuguese the use of definite articles in front of proper names. There was one case in each group, which are both exemplified in the phrases below:

P9: *The* Peter's home P49: *The* Daniel's feet

In English proper nouns, more specifically personal names, are generally used with zero article (Yule, 2009; Cowan, 2008). The phrases above could be produced as follows:

Peter's home Daniel's feet

Category number four is that of prepositions, where there were 9 cases of L1 influence, 5 for the L2G and, 4, for the L3G. There was one example of the verb *listen to*, where the preposition is missing. These phenomena occurred because the equivalent in Portuguese of the verb *listen* is *ouvir* which is a transitive verb that requires only a direct object. In other words, in Portuguese the verb *ouvir* does not require a preposition. Participants transferred the use of the verb *ouvir* to English as it is shown in the example in English with its correspondent sentence in Portuguese:

P41: He listened some noise from behind the dead tree. Ele ouviu algum barulho de trás da árvore morta.

In the sentence above the verb *listen* requires the preposition *to*, since it is a prepositional verb. Prepositional verbs are a two- word unit that consists of a transitive verb and a preposition; the verb and the preposition normally have the meaning of a single- word verb. (Cowan, 2008). Thus, an alternative version of this sentence would be:

He listened to some noise from behind the dead tree.

Cowan (2008) explains that L1-Spanish speakers may have problems with the prepositional verb *listen to*. He affirms that since this verb has a meaning equivalent to the verb in the learner's L1 that lacks a preposition, the learner may omit this preposition in English too (Cowan, 2008, p.181). The same statement made by Cowan (2008) for the Spanish L1 speakers holds true for the Portuguese L1 speakers of the present study.

Category number 5 is that of pronouns, where there was a significant influence of the L1, mainly in the L3G. The L1 influenced the excessive use of the pronoun *your* and also the omission of the subject pronoun. In total, there were 6 cases of L1 influence for the L2G and, 19, for the L3G, concerning pronouns. There were 14 cases of the use of the pronoun *your* instead of *his/her* and this can be explained by the fact that in Portuguese, the pronoun *seu* (your) is also used to indicate possession for the second person of the singular form, mainly in spoken language (Castilho, 2010, p. 503). Learners of English may transfer this aspect to the target language and use *your* instead of *his* or *her*, as the following example with a version in Portuguese shows:

P15: When the boy was sleeping with **your** dog. Quando o menino estava dormindo com seu cachorro.

This is compatible with Cowan's (2008) statement, where he explains that the problems that English learners have with pronouns are normally a result of the differences and similarities between the pronoun system of the learners' L1 and the system in English (p. 163, Cowan, 2008). In this case, more specifically students are selecting the pronoun with the pattern of their native language. An alternative version of the sentence above would be:

When the boy was sleeping with his dog.

Cowan (2008) also explains the second type of L1 influence found at this category, that is, the omission of the subject pronouns. In

his text he explains this phenomenon taking as reference Spanish and Italian L1- speakers. However, the same explanation holds true for Portuguese. Within the context of Universal Grammar, Cowan (2008) explains that the languages that do not require a subject pronoun are called pro-drop or null subject languages (Cowan, 2008, p. 291). Spanish, Italian and also Portuguese are pro- drop languages, while English is not. These pro- drop languages allow sentences without the subject pronoun. More specifically, in Portuguese the subject may not be explicit because the verb is inflected, and this inflection indicates number and person, which already identifies the subject of the sentence (Berlinck, Augusto & Scher, 2008). However, in English the subject must be explicit, since there is no inflection of the verb indicating the subject of the sentence, except for the 3rd person singular, where the verb is inflected to agree with he/she/it. Having said this, it is possible to state that the learners of English that are omitting the subject pronoun are being influenced by their L1- Portuguese. The following example shows this L1 influence:

P40: it was already at night and \(\subseteq \text{went to bed} \) it was already at night and \(\mathbf{he} \) went to bed

In short, these results of CLI, at the syntactic level, point to a significant influence of the first language in the production of English. Although the L3G had more cases of L1 influence (24) than the L2G (17), the errors produced by both groups are quite similar. It is important to highlight that no cases of L2 influence were found for the L3G at the syntactic level.

4.3.3 Grammatical errors from within English

This subsection presents the grammatical errors produced by participants that are not related to their first or second language. These errors may be related to the acquisition of English, irrespectively from the previous languages of students. The errors were divided into 8 grammatical categories: 1) tense/aspect, 2) negation, 3) plural form, 4) prepositions, 5) articles, 6) pronouns, 7) verb form, and 8) word order, as can be seen in Table 8.

Table 8
Grammatical errors from within English in the written task

	L2G		L3G	
Tense/ Aspect	45	38,79%	89	48,9%
Negation	1	0,86%	3	1,65%
Plural form	10	8,62%	16	8,79%
Prepositions	27	23,28%	20	10,99%
Articles	8	6,9%	9	4,35%
Pronouns	3	2,6%	6	3,3%
Verb form	17	14,7%	37	20,33%
word order	5	4,3%	2	1,09%
Total	116		182	
N =	16		15	

Note: N= number of participants

As Table 8 shows, participants presented many errors in the category of tense/ aspect. According to Cowan (2008), tense and aspect are the two concepts used to describe time and action in verbs (Cowan, 2008, p. 350). He also states that these two concepts are known as difficult areas for English learners. This was confirmed in the present study: learners had much difficulty in this grammatical category while performing the written narrative task proposed. Learners had difficulty in maintaining a coherent time line when telling the story. The stories narrated in this task did not present a continuous time sequence. They were narrated in either the present or the past tense without a correct chronological order. Even though it is more common for stories to be narrated in the Past Simple, Cowan (2008) and Yule (2009) mention the possibility of using Present Simple for narratives. Cowan (2008) states that the use of Present Simple in narratives is restricted, but possible. Yule (2009) states that the use of Present Simple makes the narrative more vivid or less remote. Yule (2009) also exemplifies in his text the use of both present and past tense in less technical writing, whereas present tense would be used for general statements and past tense for specific events (Yule, 2009, p.70). However, as the concept of tense is considered difficult for English learners to master (Cowan, 2008), it is evident that the participants of this study were not able to mix these two tenses, present and past, for their narratives and, as a consequence, they made many errors at this category. It can also be observed that the number of errors concerning the aspect of tense was much higher in the L3G (89) than in the L2G (45). More specifically, participants of the L2G presented 38 errors concerning the inappropriate use of present and past tenses. The following example illustrates the inappropriate use of

the past participle of the verb *fall* (*fallen*) whereas it would be more appropriate to use the Past Simple form (*fell*), as follows:

P9: The dog fallen down. The dog fell down.

Another example of the L2G that reflects the discontinuity in the time line is seen in the following example:

P10: They fall down in the water and found the frog.

In the sentence above the verb *fall* is in the Present Simple form, whereas the verb *found* is in the Past Simple form. For this reason, the sentence is not coherent concerning tense. An alternative version for this sentence would be:

They fell down in the water and found the frog.

The L2G also presented 5 errors of inappropriate formation of the past tense, as in the following example:

P46: They called the frog but it didn't appeared.

In the sentence above the negative form of the Past Simple is not appropriately constructed since the past form is duplicated. In English, when the auxiliary *did* is used the verb that follows stays in the infinitive form. The sentence could be produced as follows:

They called the frog but it didn't appear.

Related to aspect, there were 8 errors for the L2G, which concerned the use of the verb in the perfect, continuous/progressive aspects. The following example illustrates a situation where Past Perfect was used, but the most appropriate sentence would be in Past Perfect Continuous, since the sentence is referring to an ongoing action and not to a completed action:

P41: But his purpose hadn't reached. But his purpose hadn't been reached.

As regards the L3G, there were 71 errors concerning the inappropriate use of tense. These errors occurred because of the difficulty presented by participants when using Present and Past tenses. The following example illustrates the inappropriate use of present and past tenses in the same sentence:

P15: They see that the frog wasn't in the jar.

In the sentence above the verb *see* is in the present tense, whereas the verb *was* is in the past tense. However, as both verbs are representing the same sequence of time, it would be more appropriate for these verbs to be in the same tense. An alternative version for the sentence above would be:

They saw that the frog wasn't in the jar.

The L3G also had 6 errors concerning the inappropriate formation of tense as in the following example:

P69: But they don't found the frog.

In the sentence above the Past Simple is inappropriately structured. First, the auxiliary for the past tense is *did* and not *do* and, by using the auxiliary, it is not necessary to inflect the verb. An alternative version for the sentence above would be:

But they didn't find the frog.

The L3G also had 12 errors related to aspect. The following example illustrates a situation where Past Continuous was used where the use of Past Simple would be more appropriate:

P15: Later, the boy, the dog and the frog were going home. Later, the boy, the dog and the frog went home.

The second category of Table 8 is negation, where there was only 1 error for the L2G and there were 3 errors for the L3G. These errors reflect the stages of learning negation in English (Hawkins, 2006), where participants misused no and not, and also not and the auxiliary. The following example illustrates the negation being structured by "not" + "verb":

P50: On the other day, Mark not saw the frog in the glass.

The sentence above deviates from grammatical English. The auxiliary of the Past Tense "did" is missing. By using the auxiliary, the verb could be in the infinitive form. The sentence above could be produced as follows:

On the other day, Mark did not see the frog in the glass.

The third category is that of plural form, where there were 10 errors for the L2G and, 18, for the L3G. Participants made errors of concordance with simple nouns as in the following examples:

P10: Michael got scared with that animals.

P43: The boy and the dog is sleeping.

In the first example, *that* is the singular form whereas the noun is in the plural form. In the second example the subject of the sentence is plural and the verb is singular. Both sentences have concordance problems and could be produced as follows:

Michael got scared with those animals.

The boy and the dog are sleeping.

Category number four is that of prepositions, which comprised three different errors: omission of preposition, inappropriate preposition, and unnecessary preposition. The L2G presented 27 errors concerning prepositions and the L3G, 20 errors. These errors were divided in 5 errors of omission of preposition for the L2G and, 2, for the L3G, 16 errors of inappropriate use of the preposition for the L2G and, 14, for the L3G. There were also 6 errors of unnecessary preposition for the L2G and, 4, for the L3G. An example of omission of preposition is the following:

P1: One night, after **playing his pet**, he went to bed. P56: trying to **escape the owl**, he jumped on a deer.

In the first sentence above the preposition *with* is missing. This preposition has an instrumental role, since it indicates what is used to carry out an action (Cowan, 2008). In the second sentence the preposition from, which indicates source (Cowan, 2008) is missing. Both sentences could be produced as follows:

One night, after playing with his pet, he went to bed. trying to escape from the owl, he jumped on a deer.

The following sentences illustrate the inappropriate use of a preposition:

P25: At the morning Peter woke up.

P61: The dog put his head **on** the bottle to find the frog.

The two sentences above exemplify the inappropriate use of prepositions that indicates location, *at* and *on*. In both cases the prepositions are inappropriate and could be replaced for the preposition *in*, as follows:

In the morning Peter woke up.

The dog put his head **in** the bottle to find the frog.

Yule (2009) distinguishes the uses of *in* and *at*, by saying that *at* is used when there is a very specific point in time, whereas *in* is used in an extended period of time. Yule (2009) also addresses two questions for each preposition, for *at*, he asks "What specific point in measured time?" and for *in* he asks "Which extended period of time?" (p.165, Yule, 2009). Concerning the unnecessary use of a preposition there is the following example:

P46: He took the frog and **put on in** a bottle. P3: Peter and his dog screamed **go to there**.

In the first sentence the preposition *on* is unnecessary and in the second sentence the preposition *to* is inappropriate. An alternative version for both sentences would be as follows:

He took the frog and **put** in a bottle. Peter and his dog screamed and **go** there.

In general most of the errors at this category were related to prepositions that have the thematic roles related to location, such as *in*, *on* and *at*. Cowan (2008) explains that Spanish- L1 speakers may have problems with the use of these two prepositions because it is normally taught to students that *in* implies that the object is enclosed, whereas *on* implies physical contact with the object. This explanation may be useful for beginners, but may be problematic as the learner advances and faces other uses of the two prepositions. I suggest that Portuguese- L1 speakers may have the same problem as the Spanish L1 speakers, when learning these prepositions.

Category number 5 is that of articles. At this category there were 8 errors for L2G and, 9, for the L3G. These errors were divided as follows: there were 3 errors of article missing for the each group, 3 errors of inappropriate use of *a/an* and *the* for the L2G and, 5, for the L3G, 1 error of unnecessary article for the L2G and, 2, for the L3G. The following sentence illustrates an example where the article is missing:

P5: The frog escaped from jar.

In the sentence above the article *the* is missing and it could be produced as follows:

The frog escaped from the jar.

Following, there is an example of inappropriate use of the articles *a/an*:

P3: He stayed close to a old and fallen tree.

In the sentence above the article *a* could be replaced by *an*, since the noun *old* starts with a vowel sound. The sentence could be produced as follows:

He stayed close to an old and fallen tree.

Category number 6 is that of pronouns, where there were 3 errors for the L2G and, 6, for the L3G. The errors of the L2G varied between gender use, as in the use of *she* instead of *he* and the use of object pronoun instead of possessive adjective, as in the example *him dog*, instead of *his dog*. The errors of the L3G varied among cases of inappropriate use of the object and subject pronouns, as in the example *throw he*, instead of *throw him*, gender use, as in the use of *she*, instead of *he*. There were also cases of use of possessive adjective instead of a subject pronoun, use of a singular pronoun instead of a plural pronoun and misuse of relative pronouns.

Category number 7 is that of verb form, which comprises cases of the 3rd person singular and the inappropriate formation of the past form, whereas there was a regularization of the irregular past form of the verbs. Participants made many errors at this category, the L2G made 17 errors and the L3G, 37. From the 17 errors made by the L2G at this category, 11 were a result of a regularization of the past form of the irregular verbs, as in the following examples:

P9: *taked*, instead of *took*P4: *putted*, instead of *put*P48: *broked*. instead of *broke*

The other 6 errors made by the L2G were related to the 3rd person singular, where participants did not inflect the verb to agree with the 3rd person singular in the present tense, as in the following example:

P43: While the boy and the dog are sleeping, the frog escape.

In the sentence above the verb should be inflected to agree with the subject *frog* and the sentence could be produced as follows:

While the boy and the dog are sleeping, the frog escapes.

The L3G also presented cases of regularization of the irregular past of the verbs, there were 18 errors in the total. Some of them are exemplified below:

P3: *founded*, instead of *found* P50: *sleeped*, instead of *slept* P56: *meeted* instead of *met* The L3G also presented 7 cases of inappropriate formation of the past form of the verbs that were not a result of regularization of the irregular past, as in the following example:

P15: *fallt*, instead of *fell* P12: *smelt*, instead of *smell*

In this case it seems that participants are overgeneralizing the production of the past according to verbs which form the past with a similar ending, as *slept*, *kept* and *left*. The L3G also presented 12 cases of inappropriate inflection of the verb for the 3rd person singular, as in the following example:

P60: The boy take a little frog.

In the sentence above the verb *take* should be inflected to agree with the subject *boy* and the sentence could be produced as follows:

the boy takes a little frog.

Category number 8 is that of word order. Hawkins (2006) explains that Romance languages, like Italian, Spanish and Portuguese are Subject- Verb- Object (SVO) languages as English is. There were few cases of inappropriate word order, 5 for the L2G and 2 for the L3G, as in the following example:

The word order of the sentence above is inappropriate since it is structured in the following order: Object – Verb – Subject, whereas the most common order for this sentence would be as follows:

The overall results of the analysis of the grammatical errors show that the most difficult category for the L2/L3 learners of English is tense and that the L3 learners made more errors than the L2 learners. According to these results, the sequence of difficulty for these learners is tense, verb form, prepositions, plural form, articles, pronouns, word order and negation.

4.3.4 Summary of the section

This section presented the analysis of the written task at the lexical and syntactic levels which focused on CLI in the written production of English as an L3 and as an L2. The results of the analysis at the lexical level showed that for the L3 learners of English the major source of influence in the production of the target language is from within the L3. The next major source of influence comes from the L1, Portuguese; only one case of influence of the L2 was found at the lexical level. The same results were found for the L2G: the major source of influence comes from within English and next it comes from the L1, Portuguese. However, it has to be highlighted that the L3 learners presented more cases of CLI than the L2G, which might be explained by the fact that the process of acquisition of a third language is more complex than the acquisition of a second language, since there are more languages interacting, and this may cause more intrusion (Ecke, 2001) in the process of lexical selection.

The results of CLI at the syntactic level also pointed to a strong influence of the first language. The L3 learners also presented more cases of CLI than the L2 learners. However, the type of influence of the L1 was quite similar for both groups. At the syntactic level, the L3 learners presented influence of the first language, Portuguese, whereas no cases of influence of the L2 at the syntactic level were found. For the L2 learners the first language also manifested a strong influence. Some attention also has to be driven to the grammatical errors of these participants, which were more numerous than the results of CLI at the syntactic level for both groups. It has also to be observed that the L3 learners produced more grammatical errors than the L2 learners.

To sum up, according to the results of the written task, it can be concluded that for the Brazilian context and for these groups of L3 and L2 learners of English, the biggest source of influence in the acquisition of the target language is Portuguese, the first language. Nevertheless, the role of the target language in the lexical selection of these participants cannot be disregarded.

4.4 Descriptive analysis of the oral task

This section presents the descriptive analysis of the data obtained through the oral task applied to participants in this study. In this task participants narrated the story of a film they had recently watched. This narration was audio recorded and lasted from 1 to 6 minutes. The

transcriptions varied from 50 to 500 words, with a mean number of 274 words produced for the L2G and, 251 words produced for the L3G. The speech rate (SR), that is the mean number of words transcribed divided by the average time spoken in minutes was also calculated and the results differed a little between the two groups. The mean SR for the L2G was 78 words per minute, and 59 words per minute for the L3G. In other words, the L2G is more fluent than the L3G.

This section presents the instances of CLI at the lexical and syntactic levels for the oral task and it is organized in four subsections. Subsection 4.4.1 presents the instances of CLI at the lexical level. Subsection 4.4.2 presents the instances of CLI at the syntactic level. Subsection 4.4.3 presents the grammatical errors produced by participants. Subsection 4.4.4 summarizes the main findings of this section.

4.4.1 CLI at the lexical level

This subsection presents the cases of CLI found at the lexical level. These results show the influence of the first and second languages in the oral production of these participants and also instances of influence within the target language, English. The number and classification of CLI at the lexical level are presented in Table 9.

Table 9
Crosslinguistic influences at the lexical level in the oral task

Crossinguistic initi	uences at the r	exical leve	i in the ora	ai task			
	L2G	L3G					
	L1 influence		L1 influence L		L2 in	L2 influence	
Transfer of form							
code switching	3	5,3%	3	5,3%	1	1,8%	
borrowings	12	21,1%	2	3,5%	7	12,3%	
foreignisings	2	3,5%	1	1,8%	0	0%	
Transfer of mear	ning						
semantic extensions	6	10,5%	8	14,0%	0	0%	
calques	4	7,0%	2	3,5%	0	0%	
•	L2(English) influence		L3(English) influence				
intrusion	30	52,6%	33	57,8%	0	0%	
Total	57		57				
N =	16		•	1.5	i		

Note: N= *number of participants*

As can be seen in Table 9, the cases of CLI at the lexical level consisted of the phenomena of code switching, borrowings and foreignisings, that are categories related to transfer of form and, semantic extension and calques, which are related to transfer of meaning. There were also cases of influence within the target language, English, that were named intrusion.

In the oral task, instances of code-switching were found. Code switching refers to the use of sentences in the L1/L2, but not in the target language (Cenoz, 2001). The L2G presented 3 instances of L1 influence and the L3G presented 3 instances of L1 influence and 1 of L2 influence. In the written task, no instances of code switching occurred, however, in spoken language participants had a more restricted time to elaborate their sentences and they had to compensate their lack of knowledge in the target language. Consequently, they ended up using sentences in their L1/L2. Examples of code switching were used mainly when saying the name of the film, whereas participants used Portuguese, as in the following example:

P9: Meu malvado favorito (Despicable me)

There were other examples not concerning the name of the films where participants used extracts of the sentence in the L1 or in the L2. The following example is an extract used in Portuguese:

P43: se você puder if you could

There was also an example of a sentence where the participant's L2 (German) is mixed with the target language, English:

P31: Es war a big glass in front of him There was a big glass in front of him

As it was already explained in the previous section, the phenomena of borrowing refers to the use of a word in the L1/L2, but not in the target language (Cenoz, 2001). In this oral task there were cases of borrowings based on participants'L1 and L2. However, differently from the results at the other categories, the L2 influenced more than the L1 for the L3G, being 7 cases of L2 influence and 2 of L1 influence, as can be seen in the following examples:

P26: They went to Rio de Janeiro to save his **espécie**. They went to Rio de Janeiro to save his **species**.

P43: I always see the film and I don't cansar. I always see the film and I don't get tired.

P31: He has a lot of things about the **tot** man. He has a lot of things about the **dead** man.

P60: The dog is one **japanisch** dog The dog is one **japanese** dog

Following, there were a few cases of foreignisings. As already explained foreignising refers to the use of a word from the L1/L2 in the target language, but with a modified form (Cenoz, 2001). There were two cases in the L2G and one case in the L3G from the L1, one example would be the word "sentiments", that is an adaptation of the word "sentimentos" (feelings), from Portuguese, as in the following example:

P43: The robot is very perfect and he has **sentiments**. The robot is very perfect and he has **feelings**.

In short, the results of transfer of form in the oral task show that the L2G had a slightly higher number of cases of CLI than the L3G, which differs from the results of the written task, presented in the previous section⁴. Another relevant finding from these results concerns the highest number of CLI of the L3G that were based on the L2, compared to the L1. This result also differs from the results of the written task⁵.

Concerning transfer of meaning, that is, when the meaning of a word from the L1/L2 is transferred to the L3, there were cases of semantic extensions, that is when the meaning is transferred to a single word, and calques, that is when two or more words are used with the pattern from the L1/L2 that differs from the L3 (Ringbom, 2001). There were 6 cases of semantic extensions for the L2G and, 8, for the L3G, all of them were a result of L1 influence, as in the following examples:

P27: The film is very interesting because it **counts** the story of a blue bird. The film is very interesting because it **tells** the story of a blue bird.

P3: The story starts when **have** a kingdom and **have** a king. The story starts when **there is** a kingdom and **there is** a king.

As can be seen in the examples above, the word *have* was used instead of *there is* and *count* was used instead of *tell*. Both examples are

⁴ In the written task, the L2G presented 2 cases of CLI and the L3G presented 7 cases of CLI concerning transfer of form.

In the written task, the L3G had one single case of L2 influence.

meaning transferred from Portuguese "ter", meaning existing and "contar", meaning to tell something. Participants confused the use of these words in their L1 and in the target language. Referring to calques, there were 4 cases for the L2G and, 2, for the L3G, which were all influence of the L1, as in the example "it is passed", instead of "it happens", that is a meaning transferred from Portuguese "isso se passa". The following sentences show, first, the example of calque and next, the appropriate replacement of the extract in bold.

P25: It was romantic film and it was passed in New York. It was romantic film and it took place in New York.

The results of transferred terms show that L2 influence was manifested only in cases of transfer of form. When transfer of meaning was concerned, only the L1 influenced the production of the target language. It can also be observed that there were more cases of transfer of form than transfer of meaning for both groups.

As can be seen in Table 9, the analysis also pointed to cases of influence from within English, named intrusion, that is when the participant used a word of the target language that was not the intended one as in the following example where the word *knows* was used instead of *meets*:

P61: He is going to his job and he knows an angel. He is going to his job and he meets an angel.

The overall results of CLI at the lexical level in the oral task showed that there was a significant amount of influence from within English, the target language for both groups. For the L3G there was a significant influence of the L2, however, this influence did not surpass the influence of the first language. The numbers of Table 9 also show that in the total the L3G had 33 cases of influence from the L3, 24 from the L1 and 8 from the L2. According to these results, the lexical selection of these participants comes first from the target language, English, then from the first language, Portuguese and after from the L2. The results concerning lexical selection of the participants are consistent with the results of the written task.

4.4.2 CLI at the syntactic level

This subsection presents the results of CLI found in the oral narratives at the syntactic level. Influence from both the L1 and the L2 were manifested for the L3G. Table 10 shows the results of the instances

of CLI at the syntactic level which were divided into five grammatical categories.

Table 10
Crosslinguistic influences at the syntactic level in the oral task

	L2G	L30	G
	L1 influence	L1 influence	L2 influence
Prepositions	2 6,9%	1 2,3%	0 0%
Articles	2 6,9%	4 9,1%	0 0%
Pronouns	20 69%	30 68,2%	0 0%
Word order	5 17,2%	4 9,1%	2 4,5%
Tense	0 0%	0 0%	3 6,8%
Total	29	4	4
N -	16	15	

Note: N= *number of participants*

Table 10 shows the five categories into which the cases of CLI at the syntactic level were divided: 1) prepositions, 2) articles, 3) pronouns, 4) word order and 5) tense. As can be seen in Table 10, the first language exerted more influence than the second language in the production of the L3 learners of English: there were 39 instances of L1 influence and only 5 of L2 influence. It can also be observed that the L3G had more cases of CLI (44) than the L2G (29).

The first category of Table 10 is that of prepositions, and at this category there were only a few cases of L1 influence and no cases of L2 influence for the L3G. There were 2 cases for the L2G, which were related to the verb *tell*, a dative verb that takes indirect objects preceded by *to* when the sentence is structured in the prepositional pattern, that is when the direct object comes before the indirect object (Cowan, 2008, p. 330) However, when the indirect object occurs between the verb and the direct object, which is called a dative movement pattern, the indirect object is not preceded by the preposition *to*. That is exactly what happened in the following example, which is shown together with its correspondent sentence in Portuguese:

P1: tell to everybody that he was Hester's father, contar para todo mundo que ele era o pai da Hester

As can be seen in the example above, the participant was influenced by Portuguese, where the preposition *to* (para) is commonly used with the verb *tell* (contar): contar para todo mundo. However according to English grammar this phrase does not require the preposition *to* and an alternative version for this sentence would be:

tell everybody that he was Hester's father.

The same phenomenon occurs with the L3G in the following example: *gives to Daniel a house*, where the sentence is structured in a dative movement pattern (Cowan, 2008) as follows:

The preposition *to* is required for the verb *give* to come before the IO (indirect object) only if the sentence is structured in the prepositional pattern (Cowan, 2008), as follows:

However, as the sentence was structured in the dative movement pattern the preposition *to* is not required and the sentence could be produced as follows:

gives Daniel a house

Category number two is that of articles, where there were 2 instances of CLI for the L2G and, 4, for the L3G. There was one case in the L3G related to the use of the definite article *the* in front of a possessive determiner you, the example of participant P61 was: *the your job*. Cowan (2008) explains that L1- speakers of Spanish, French, Italian and German may use definite articles instead of using a possessive determiner. However, Cowan (2008) does not mention the use of the definite article in front of a possessive determiner. Nevertheless, it is possible to infer that the phrase *the your job* was influenced by the participant's L1- Portuguese, since in Portuguese this sentence would be acceptable, as follows the example with its correspondent sentence in Portuguese:

o teu trabalho the your job

However, in English the phrase deviates from grammatical English: the article should not come in front of a possessive determiner. The other errors in the category of articles, both from the L2G and the L3G were related to the use of definite articles in front of proper names, as in the following examples:

P9: *the* Vetores' house P49: went to *the* New York As already explained in section 4.3.2, in Portuguese articles can be placed before proper names. Nevertheless, in English proper nouns, more specifically personal names are generally used with zero article (Yule, 2009; Cowan, 2008). Therefore the phrases above could be produced as follows:

Vetores' house went to New York.

The third category is that of pronouns, where there were 20 instances of L1 influence for the L2G and, 30, for the L3G. At this category there were two types of errors, one related to the inappropriate use of the pronoun *your* instead of using *his/her* and the other was related to the omission of the subject pronoun. The first type of error is exemplified in the following sentence:

P3: Asgard is the kingdom where Thor lives with **your** family. Asgard é o reino onde Thor vive com **sua** família.

As already explained, in Portuguese, the pronoun *seu* (your) is also used to indicate possession for the second person of the singular form, mainly in spoken language (Castilho, 2010, p. 503). For this reason, learners of English may be transferring the use of the pronoun *your* from their native language. As a consequence, they use the pronoun *your*, where *his* or *her* should be used. An alternative version for the sentence above would be as follows:

Asgard is the kingdom where Thor lives with his family.

The second type of error of this category is related to the omission of the subject pronoun. As explained in section 4.3.2, Portuguese is a null- subject language or a pro-drop language which does not require a subject pronoun (Cowan, 2008). In Portuguese, the verb is inflected to indicate number and person. However, English is a language which marks this pro-drop parameter negatively. In English the verb is not inflected and the subject pronoun must be explicit. Participants of the L2G and of the L3G were influenced by the L1-Portuguese and produced phrases as exemplified below:

P3: But \square is a nice movie.

P1: And he died there because \Box confessed his secret.

P57: *□ Talks* about a roteirist.

As can be seen in the sentences above the \square indicates the subject pronoun that is missing. Category number four is that of word order,

where there were 5 cases of L1 influence for the L2G and, 6, for the L3G, being 4 influence of L1 and 2 influence of the L2. One example of L1 influence in the inappropriate word order was related to adjective placement, as the phrase is shown below with its correspondent in Portuguese:

As already explained in section 4.3.2, in English, differently from Portuguese, adjectives that express a property that is inherent to the referent of the head noun are named attributive- adjectives and they come before the head noun (Cowan, 2008). For this reason the most appropriate order for the phrase above in English would be:

The following example illustrates the influence of the L2-German in English word order:

The sentence above was structured in an SOV order, which corresponds to the word order of German that is a Subject- Object- Verb (SOV) language (Hawkins, 2006). However, English is Subject- Verb-Object (SVO) language and the sentence above is uncommon. An alternative version for the sentence above would be as follows:

The last category of Table 10 is related to tense, whereas there were 3 cases of L2 influence for the L3G and no cases of L1 influence for both groups. The 3 cases of the L3G were related to the influence of the L2- German, whereas the Present Perfect was used instead of Past Simple. Cowan (2008) explains that German has a Present Perfect tense formed as the present perfect from English. As can be seen in the following schema the structure from both German and English is similar:

haben + past participle of the verb Present Perfect in German have + past participle of the verb Present Perfect in English

Cowan (2008) mentions that speakers of L1-French may have problems using the Present Perfect in situations where the Past Simple has to be used in English. This occurs because in French, the *passe composé* resembles English Present Perfect, but has a different use. The same statement holds true for the Present Perfect in German. It is formally similar to English but has a different use. This is exemplified in the following phase:

P60: The last film I have seen was "The life from the others".

It would be more appropriate for the example above to be structured in the Past Simple since it is referring to a specific time. However, in German, it would be common to use Past Simple to express this action. The sentence above could be produced as follows:

The last film I saw was "The life from the others".

In short, the results of CLI at the syntactic level show that the L1 has a stronger influence than the L2 in the production of the target language. It can also be observed that the L3G had more instances of CLI than the L2G, even when only the cases of L1 influence are considered.

4.4.3 Grammatical errors from within English

This subsection presents the grammatical errors produced in the oral task by participants from both groups that are not related to the participants' first or second language. These errors may be related to the acquisition of English, irrespectively of the previous languages from students. The errors were divided into 8 grammatical categories: 1) tense/aspect, 2) negation, 3) plural form, 4) prepositions, 5) articles, 6) pronouns, 7) verb form, and 8) word order, as can be seen in Table 11.

Table 11
Grammatical Errors from within English in the oral task

	L2G		L3G	
Tense/Aspect	56	39,1%	40	22,6%
Negation	0	0%	1	0,5%
Plural form	5	3,5%	16	9,1%
Preposition	19	13,2%	20	11,2%
Article	12	8,3%	16	9,1%
Pronoun	8	5,5%	16	9,1%
Verb form	34	23,7%	63	35,6%
word order	9	6,2%	5	2,8%
Total	14	43	1	77
N =	1	6	1	15

Note: N= *number of participants*

As can be seen in Table 11 both the L2G and the L3G presented many errors at the category of tense/aspect, there were 56 errors for the L2G and, 40, for the L3G. As was already explained in section 4.3.3, the two concepts of tense and aspect are known as difficult areas for the English learners (Cowan, 2008) and these results confirm this statement. These results are also consistent with the written task, where participants also had a high number of errors at this category because they did not maintain a coherent time line when narrating the story. They started using past and then changed to present tense or the opposite. More specifically, there was only 1 error related to aspect for the L2G and 2 for the L3G, the other errors were all related to tense, whereas present was used instead of past and past was used instead of present. The following examples show the discontinuity in time line in the participants' narrative:

P9: The moon grow up and went to the sky.

P49: They accept because grandma was dying.

In the first sentence the verbs *grow up* and *went* are in different tenses, the first in the present tense and the other is in the past tense. It would be more appropriate for both verbs to be in the past tense. The same happens in the second sentence where the verb *accept* should be in the past tense in order to agree with *was dying*. Both sentences could be produced as follows:

The moon grew up and went to the sky.

They accepted because grandma was dying.

Category number two is that of negation, which presented a single case for the L3G where *not* was used instead of *didn't*. The error is related to previous stages of the acquisition of English negation (Cowan, 2008), as can be seen in the following sentence:

P42: The mutants from the Sovietic Union wanted the war, but the American mutants not.

Category number three is that of plural form, where there were 5 cases for the L2G and, 16, for the L3G. In the L3G there were some cases of inappropriate formation of plural. Participants overgeneralized the rule of formation of plural by adding the suffix —s and ended up forming words such as *mans*. However, most of the errors related to plural were related to problems of agreement with simple nouns, as in the following example:

He saw three little girls that was from that house.

As can be seen in the sentence above, the subject *girls* is in the plural form whereas the verb *was* is singular. For the sentence to agree in number, it could be produced as follows:

P9: He saw three little girls that were from that house.

Category number four is that of prepositions, where there was a total of 19 errors for the L2G and, 20, for the L3G. These errors were divided as follows: unnecessary preposition, 7 errors for the L2G and, 6, for the L3G, inappropriate use of a preposition, 5 errors for the L2G and, 6, for the L3G, omission of preposition, 5 errors for the L2G and, 8, for the L3G. The following sentences illustrate the errors of unnecessary preposition:

P5: Because the seven evil ex works for there.

P49: She was going to marry to Andrew, her assistant.

As can be seen in the examples above, both the preposition *for*, of the first example and the preposition *to*, of the second example, are unnecessary. The following sentence illustrates the inappropriate use of a preposition which indicates location:

P42: They tried to put nuclear missiles on Cuba.

The sentence above is inappropriate and the preposition *on* could be replaced for *in*. The following example illustrates an error of omission of preposition:

The only thing that he cares is about **playing his** band.

In the sentence above the preposition *with* is missing and the sentence could be produced as follows:

P5: The only thing that he cares is about playing with his band.

Category number 5 is that of articles, where there were 12 errors for the L2G and, 20, for the L3G. These errors were divided as follows: article missing, 4 errors for the L2G and, 6, for the L3G, inappropriate use of *a/an* and *the*, 5 for the L2G and, 6, for the L3G, unnecessary article, 3 for each group. The following example illustrates one error related to article missing:

P3: It is magic story.

In the sentence above, the article a is missing and the sentence could be produced as follows:

It is a magic story.

Following, there is an example where the article *the* is unnecessary:

P10: The police said that his wife's brother was in the prison.

Category number 6 is that of pronouns, where there were 8 errors for the L2G and, 16, for the L3G. The errors of the L2G were related to the use of pronouns with the inappropriate gender, as in the use of *he* instead of *she*, or the use of *his*, instead of *her*. There were also errors of inappropriate choice of the pronoun among subject pronouns, as in the use of *it*, instead of *he*, or *he* instead of *they*. There was also one case of use of subject pronoun instead of an object pronoun and the use of a subject pronoun instead of a relative pronoun. The L3G presented errors which varied among the use of the inappropriate relative pronoun, as in *who*, instead of *she*. There were cases of use of a singular pronoun instead of a plural pronoun and also the opposite. There were cases of use of a subject pronoun instead of an object pronoun, and also the use of a subject pronoun instead of a relative pronoun.

Category number 7 is that of verb form, where most of the errors were related to the use of the inflection of the verb in the 3rd person singular in the present tense. Besides, there were 3 cases of regularization of the irregular past form of the verbs, 2 for the L2G and 1 for the L3G. The following sentence exemplifies a common error at this category, that is the absence of the inflection in the verb to agree with the 3rd person singular pronoun *he*:

P48: *He try* to investigate but the doctors keep bothering him.

In the sentence above the verb *try* could be inflected and the form *tries* would be more appropriate. Another example of the inappropriate use of the verb in the 3rd person is:

P61: He doesn't knows that the angel is a angel.

In the sentence above the error is the double inflection of the auxiliary do to does and the verb know to knows, whereas it is necessary to inflect only the auxiliary to agree with the subject pronoun he, and the form in bold from the example could be replaced by doesn't know. At this category, there were also examples concerning the regularization of the irregular past of the verbs, such as:

P9: *stoled*, instead of *stole* P69: *fighted*, instead of *fought*.

Category number 8 is that of word order, where there were 9 errors for the L2G and, 5, for the L3G. One example was the phrase of participant P49: *ninetieth birthday grandma*, whereas the most appropriate word order would be *ninetieth grandma's birthday*.

The overall results of Table 11 show that the L3G made more grammatical errors than the L2G. However, the type of errors from both groups was very similar, indicating that these errors are common to English learners, irrespectively from their background languages.

4.4.4 Summary of the section

The analysis of the oral narratives shows that the L2 exerted more influence in the participants' oral production than in the written production. In the oral production, the L2 influenced the L3 production both at the lexical and syntactic levels. However, at the lexical level this influence was restricted to transfer of form. It is also important to mention that the L2 influence did not surpass the L1 influence. Still at the lexical level, it has to be noted the influence from within English, the target language, in the lexical selection of these participants. At the syntactic level there was a little influence of the L2 in the production of the L3 learners; however, the greatest source of influence for both groups was from the L1. In addition, the analysis of the grammatical errors showed a highest number of errors for the L3 learners compared to the L2 learners.

To sum up, the results of the analysis of the oral task replicate in part the results of the written task. These results show that the L1 has a privileged role in the production of English, both as an L2 and as an L3. They also point to a significant influence of the target language, English in the lexical selection of these groups of participants. On the other hand, the results of the oral task differ from the written task because in the oral task the number of cases of CLI was much higher and the L2 exerted more influence in the production of the L3 learners when compared to the written task. The following section discusses in more detail the results of both the written and oral tasks.

4.5 Discussion of the results of the written and oral tasks

This section aims at discussing and interpreting the results of the analysis from both the written and oral narrative tasks and it is organized into five subsections. Subsection 4.5.1 compares and discusses the results of CLI at the lexical level from both the oral and the written tasks. Subsection 4.5.2 compares and discusses the results of CLI at the syntactic level. Subsection 4.5.3 discusses the results from both tasks with the information of the questionnaires. Subsection 4.5.4 compares the grammatical errors made by participants in both the written and oral tasks. Subsection 4.5.5 summarizes the results obtained in both tasks.

4.5.1 Results of CLI at the lexical level of the written and oral tasks

This subsection brings up the results of CLI at the lexical level. In both tasks, these results were manifested in terms of transfer of form and meaning. Concerning transfer of form, both the first and second language influenced the target language production, and this influence was manifested by means of code switching, in the oral task and borrowings and foreignisings, in both tasks. Ringbom (2001) explains that transfer of form may occur when the L3 word is formally similar to an L1 or L2- word, than this formally similar word is activated instead of the intended one. The comparison of the transferred terms at the form level from both tasks shows that in the oral narrative there were more cases of CLI. This probably happened because the written task tends to be more formal, and the formality of the task may influence the results of CLI (Dewaele, 2001). First, in the oral task there were 7 cases of code switching, whereas this type of transfer did not occur in the written task. As regards borrowings, there were 5 cases of borrowings in the written

task, whereas in the oral task there were 21 cases. However, when it comes to cases of foreigneisings, there was no difference between the two tasks: there were only a few cases in both tasks, 4 in the written task and 3 in the oral task.

The results of transfer of form, in the oral task show a similar amount of influence of the L1 and the L2, for the L3G, whereas there were 6 cases of L1 influence and 8 of L2 influence. On the other hand, in the written task, L2 was practically not manifested: there was a single case of L2 influence. The comparison of the results of transfer of form from both narratives shows that in the written task the L3G had more cases of CLI than the L2G, 7 versus 2. On the other hand, in the oral task it was the L2G that had more cases of CLI, 17 versus 14 for the L3G. Nevertheless, it is noticeable the higher number of cases of CLI from the oral task, compared to the written task.

As opposed to the results of transfer of form, transfer of meaning was manifested only based on the L1, not in the L2, which is coherent with what Ringbom (2001) states, that for this more complex process of developing meaning the biggest source of influence comes from the L1 and not the L2. More specifically, Ringbom (2001) explains that transfer of meaning, as in calques and semantic extensions tend to occur based on L1 and not based on L2, because this type of transfer is more complex than transfer of form, since it does not involve only a substitution of one single lexical unit by a formally similar one. In the case of calques there are two or more lexical units combined to form a third one, with an L1- pattern that differs from the L3; in the case of semantic extensions, the learner assumes that the L3 word has a meaning corresponding to the L1 word. However, it is important to consider that this is not a rule. As Ringbom (2001) suggests, it cannot be stated that transfer of meaning will not be influenced by the L2, because it is also necessary to consider some factors which may play a role in the source of influence for the L3, such as L2 proficiency and exposure (William & Hammarberg, 1998 as cited in Ringbom, 2001).

The results of transfer of meaning of both narratives were manifested in terms of calques and semantic extensions. The number of cases of L1 influence for both groups was very similar in both narratives, there were 15 cases of transfer of meaning in the written task and 20 in the oral task, more specifically, there were 9 cases of L1 influence for the L2G and, 6, for the L3G in the written task, and 10 for each group in the oral task. Differently from the results of transfer of form, the results of transfer at the meaning level, point to a similar

behavior for both groups. It is also important to consider that, in this aspect there was no significant difference between the two tasks.

To sum up, the results of CLI at the lexical level showed that, L2 influence was manifested only in cases of transfer of form, mainly in the oral task, and that at this particular aspect from this task, L1 and L2 had a similar amount of influence in the production of L3. On the contrary, transfer of meaning was based only in the L1, in both tasks. The general results at the lexical level point to a similar amount of CLI for both groups in each task. However, when the two tasks are compared, it is evident the highest number of transferred terms from the oral task.

In the analysis of CLI at the lexical level, there were also cases of interference within the target language English, as when the participant used a word in English that was not the intended one, it was classified as an intrusion (Ecke, 2001). When comparing the number of cases of L3 influence (intrusion) with the number of cases of L1 and L2 influence, it can be noticed that there were more cases of influence within the target language than from L1 or L2. The number of cases of intrusion in the written narrative was 25 for the L2G and, 31, for the L3G, and in the oral task, it was 30 for the L2G and, 33, for the L3G. According to these results, the two groups had a similar behavior at this aspect and the numbers are also consistent with the data from L1 and L2 influence, where there were more cases of CLI in the oral task than in the written task. This data suggests that, at the lexical level, the L3 learners of English search for an unknown word, first in the target language, then in the first language (Portuguese) and finally, in the second language.

As for the comparison of the results of the L2 and L3 learners of English concerning the lexical level, the data becomes more informative when we determine the mean number of instances of CLI for each group, in the written and oral narrative tasks, as can be seen in Table 12.

Table 12
Mean number of CLI at the lexical level in the written and oral tasks for each

	L2G		L3G	
	M ⁶	M',7	M	M'
Written Task.	2,25	85,77	2,93	72,69
Oral Task.	3,56	76,97	3,8	66,84
N	16		1	5

Note: N= *number of participants*

Table 12 shows that the mean number of instances of CLI at the lexical level per participant was very similar for both groups. In the written task, the mean number of CLI per participant was 2,25 for the L2G and, 2,93, for the L3G, 2,93. In the oral task, the mean number of CLI per participant was 3,56 for the L2G and, 3,8, for the L3G. These numbers point to a similar behavior of both groups, in both tasks, when the lexical level is concerned. The numbers also show that the mean number of CLI per participant was higher for the oral task as compared to the written task.

Table 12 also presents the mean number of words per CLI (M'). As can be seen in Table 12, in the written task, the mean number of words per CLI was 85,77 for the L2G and, 72,69, for the L3G. In the oral task, the mean number of words per CLI was 76,97 for the L2G and, 66,84, for the L3G. These numbers indicate that the L2G had a slightly better performance than the L3G. It also indicates that the L3G has more CLI than the L2G. This is not a surprising result, since for the L3G there are two possibilities of influence in the target language, the L1 and the L2, whereas for the L2G there is only the possibility of the influence of the L1.

4.5.2 Results of CLI at the syntactic level of the written and oral tasks

This subsection presents the discussion of the results of CLI at the syntactic level from both the oral and the written tasks. Jarvis & Pavlenko (2010) mention that until the 90s, it was believed that syntax was immune to CLI effects. However, the more recent studies have

⁷ Mean number of words per CLI (M') = $\frac{mean number of words produced}{mean number of CLI per participant}$

⁶ Mean number of CLI per participant (M) = $\frac{number\ of\ instances\ of\ CLI}{number\ of\ participants}$

demonstrated that CLI can also be manifested in syntax and the results of the present study confirm this statement. The results of CLI in syntax pointed to a significant influence of the first language. In the written task, no influence of the L2 was found, and in the oral task there were few cases of L2 influence. More specifically, there were 17 cases of L1 influence for the L2G and, 24, for the L3G in the written task, whereas in the oral task, there were 29 cases of L1 influence for the L2G, 39 cases of L1 influence and 5 cases of L2 influence for the L3G. These results show a small difference between the two groups: in both tasks there were more cases of CLI for the L3G compared to the L2G. The highest number of cases of CLI in the oral task compared to the written task is consistent with the results found at the lexical level. It is possible that the written task seemed to be more formal than the oral task, which justifies the highest number of CLI in the oral task, both at the lexical and syntactic levels.

A more detailed view of the results of CLI at the syntactic level is given when the mean number of instances of CLI per participant, in each group is determined, in the written and oral narrative tasks, as can be seen in Table 13.

Table 13
Mean number of CLI at the syntactic level in the written and oral tasks for each group

	L2G		L3G	
	M^8	M ^{,9}	M	M'
Written Task	1,06	182,08	1,6	133,13
Oral Task.	1,81	151,38	2,93	86,69
N	16		1	5

Note: N= *number of participants*

Table 13 shows the mean number of CLI at the syntactic level per participant. In the written task, the mean number of CLI per participant was 1,06 for the L2G and, 1,6, for the L3G. In the oral task, the mean number of CLI per participant was 1,81 for the L2G and, 2,93, for the L3G. Table 13 also presents the mean number of words per CLI. In the written task, the mean number of words per CLI was 182,08 for the L2G and, 133,13, for the L3G. In the oral task, the mean number of words per

⁸ Mean number of CLI per participant (M) = $\frac{number\ of\ instances\ of\ CLI}{number\ of\ participants}$

⁹ Mean number of words per CLI $(M') = \frac{mean number of words produced}{mean number of CLI per participant}$

CLI was 151,38 for the L2G and, 86,69, for the L3G. At the syntactic level, the difference between the two groups is clearer than at the lexical level. The L3G indeed had more CLI than the L2G. The results of CLI at the syntactic level also confirm that there were more instances of CLI in the oral task than in the written task.

4.5.3 Results of the grammatical errors from within English in the written and oral tasks

This subsection presents the discussion of the grammatical errors made by participants from both groups in the written and oral tasks. Even though the intent of this study was to look for instances of CLI related to participants' first or second language, the participants produced more grammatical errors in both the written and oral tasks that were not related to their L1 or L2s, than instances of CLI. These grammatical errors are also important to understand the processes which learners of English undergo.

The grammatical errors found in the two narratives were classified into the following grammatical categories: tense/aspect, negation, plural form, prepositions, articles, pronouns, verb form, and word order. The overall results of the grammatical errors of the categories mentioned showed that the most difficult category for the learners of English is tense/aspect, and this applies to both L2 and L3 learners. However, this conclusion differs from Hawkins' (2006) statement, where the most difficult verbal morphology representations for learners of English would be

 $aspect > tense > 3^{rd} person singular$

According to the results of this study, for these groups of participants, the following order of difficulty for the verbal morphology representations in English is proposed:

tense $> 3^{rd}$ person singular > aspect

In the written task, the L2G made 116 grammatical errors, whereas the L3G made 182. In the oral task, there were 143 errors for the L2G and, 177, for the L3G. These results suggest a better performance of the L2G compared to the L3G. The results also show a similar behavior of each group in each task.

A more detailed analysis of the data is obtained when the mean number of grammatical errors per participant, in each group, is determined, in the written and oral narrative tasks, as can be seen in Table 14

Table 14
Mean number of grammatical errors in the written and oral tasks for each group

L2G

L3G

	L2G		L3G	
	M^{10}	M'11	M	M'
Written Task	7,25	26,62	12,1	17,6
Oral Task.	8,94	30,65	11,8	21,53
N	16		14	<u></u>

Note: N= *number of participants*

Table 14 shows that, in the written task, the mean number of grammatical errors per participant was 7,25 for the L2G and, 12,1, for the L3G. In the oral task, the mean number of grammatical errors per participant was 8,94 for the L2G and, 11,8, for the L3G. Table 14 also presents the mean number of words per grammatical errors. In the written task, the mean number of words per grammatical errors was 26,62 for the L2G and, 17,6, for the L3G. In the oral task, the mean number of words per grammatical errors was 30,65 for the L2G and, 21,53, for the L3G. According to these results, it can be concluded that the L2 learners of English were more accurate and had less interference than the L3 learners. It is also evident that both groups had more grammatical errors than instances of CLI, in both tasks.

4.5.4 Results of the written and oral tasks and the information of the questionnaires

This section presents some considerations about the results of this study that have to be mentioned according to the information of the questionnaires. First, it was observed that L2 influence for the L3G was manifested only when the L2 was German. This can be explained by the information obtained through the questionnaire, since the L2-German speakers considered themselves more proficient in the second language than the other L2-speakers; they also reported using this L2 more frequently. Another factor that cannot be disregarded is that from all the languages involved in this study, the most typologically similar to English is German. Therefore, the results of the study are consistent with the information of the questionnaires. However, it is not possible to state which of the factors mentioned was responsible for the influence of

Mean number of errors per participant (M) = $\frac{number of errors}{number of participants}$

Mean number of words per errors $(M') = \frac{mean \, number \, of \, words \, produced}{mean \, number \, of \, errors \, per \, participant}$

the L2 German over the other L2s. Instead, it is possible that the interaction among proficiency, recency and typology influenced the results.

4.5.5 Summary of the section

The results of the present study show that L2 may influence the acquisition of an L3. However, at the lexical level, this influence is manifested mainly when transfer of form is concerned. For the present study, it can be concluded that the first language plays a privileged role compared to the second. It is also possible to infer that the type of the task influenced the results, since, in the oral task, there was a significant higher number of cases of CLI, when compared to the written task.

4.6 The results of the present study and the literature

It is important to compare the results of the present study with those found in the literature. As the area of CLI in TLA is very complex, studies have not come to a conclusion on which language, L1 or L2 exerts more influence in TLA. Studies have found different results, which are now compared to the present study.

In the present study, the results showed that the greatest source of influence for the L3 learners of English was of the participants' first language. Portuguese. There are some studies which are in line with the present study concerning the influence of the L1 in TLA, as the study which was conducted in Basque schools, with Basque/Spanish bilingual children (Perales, Mayo & Liceras, 2009), whose results showed that learners tend to reproduce their L1s when using negation in English. Although the present study did not find significant evidence of transfer from L1 in the aspect of negation, in other grammatical categories, the L1 manifested a strong influence. Another study (Jin, 2009), in which the acquisition of null objects in Norwegian as an L3 was investigated, enhanced that L1 was a stronger source of influence compared to L2. According to Jin (2009), even if the L2 is typologically closer to the L3, the direct influence of the L1 cannot be disregarded. Ranong & Leung (2009), along the same lines, investigated the acquisition of null objects in Chinese as an L3, by L1 speakers of Thai and L2 English, and concluded that L1 was the source of influence for both L2 and L3 acquisition. Herwig (2001), on the other hand, in a study on the acquisition of a fourth language found no evidence of CLI of the mother tongue, in the target language production.

In regard to the role of L1 and L2 in TLA, there are many studies which indicate L2 as the greatest source of influence in TLA and not the L1. In a study concerning phonology (Llama, Cardoso & Collins, 2007) with participants to whom English is the L1 and French the L2, there was more influence of the L2. The same applies to the opposite situation, where French is the L1 and English the L2. Another study focusing on transfer in the acquisition of Italian as an L3 and L4 (De Angelis & Selinker, 2001) also pointed to more influence of the L2 as compared to the L1. However, the authors state that this may be due to the fact that the participants' L2 (Spanish) was typologically closer to the L3 (Italian) than the L1 (English) was. According to a study by Shooshtari (2009), the greatest source of influence in English as a third language was of L2 and not L1. Regarding the acquisition of French as an L3 and as an L2, Dewaele (2001) concluded that French L3 speakers had more influence of the L2, and French L2 speakers had more influence of the L1. Opposed to these results, in the present study, both the L3 and L2 English learners relied more on the first language.

Although in the present study the L1 was the greatest source of transfer, transfer from the L2 also occurred. Flynn (2009), on the other hand, based on a study focusing on relative clauses with L1 Kazakh, L2 Russian and L3 English learners suggests that experience in any prior language can influence subsequent acquisition, and that L1 does not have a privileged role in TLA. This certainly contradicts the results of the present study, whereas the L1 indeed seemed to have a privileged role over L2.

Concerning the different types of transfer that were manifested in the present study, it was found that transfer of form may occur from L1 and L2. However, transfer of meaning is more frequent from the L1. These results are in line with those found by De Angelis & Selinker (2001), where there was transfer of form from the L2, but no transfer of meaning. In Ringbom's study (2001) it was found that transfer of form may occur from either L1 or L2. However, L2 transfer will be more frequent when the learner perceives similarities between the L2 and the L3. On the other hand, according to Ringbom (2001), transfer of meaning was restricted to the L1. These results are compatible with the present study, since transfer from L2 occurred only at form and not at meaning levels. In addition, the L2 that had some influence in L3 production was the most typologically close to English, which is German. Ringbom (2001) also states that, in his study, the L2 could be more influential if all languages involved were not Western Languages.

The same statement holds true for the present study, since the languages involved are all Western languages as well.

In regard to the lexical selection of the L3 learners of English of the present study, the results showed that when participants lack knowledge of an intended word, they search first in the target language, English, next in the L1, Portuguese and finally in the L2. This finding aligns with the results of Ecke's study (2001), where intralingual L3 influence was stronger than the influence of L1 or L2. When searching for a word, participants would have more interference from within the L3, then from L2, and after from L1. The results differ a little from the present study, where the appropriate order for lexical selection would be L3, after L1 and then L2.

The present study investigated factors which may interact with CLI and the results showed that for the present study order of acquisition was the most important factor, followed by typology, L2 recency and L2 status. In contradiction to these findings, in an investigation on the acquisition of Portuguese as a third language (Carvalho & Silva, 2006), typological distance among languages seemed to be more influential than order of acquisition, since participants in both groups transferred mostly from Spanish, in either cases where it was a first or a second language. Another study favoring typology as a better predictor of CLI was the one conducted by Cenoz (2001) with participants who had either Basque or Spanish as the L1 or L2 and were learners of English as an L3. In that study, participants transferred more from Spanish, being this language the L1 or the L2, and Spanish is closer to English compared to Basque. Considering the participants' L2s in the present study, the language that is closer to English is German. Indeed, the results of this study indicated influence of the L2 German in the production of the L3 English. However, this influence did not surpass the influence of Portuguese, the L1. According to Fouser (2001), learners of Korean who had previously learned Japanese relied greatly on Japanese for the learning process. Bayona (2009), along the same lines, investigated the acquisition of middles and impersonal passive constructions in Spanish as an L3, and concluded that participants tended to use French, their L2 as a source language in the learning of L3 Spanish, instead of using the L1 English, because French is typologically closer to Spanish. Another study (Foote, 2009) investigated transfer of the contrast in aspectual meaning between Romance past tenses from L1 and L2 to L3, and the results of the study also point to typological proximity as a factor favoring transfer to L3, since in this study participants transferred from the L1 or the L2 when it

was closer to the L3. Typological proximity also favored transfer from L2 to L3, but not from L1 to L3, in a study (Bardel & Falk, 2007) where learners with different L1s and L2s who were acquiring Dutch and Swedish as an L3 were compared. In the present study, it is not possible to affirm that it was the typology factor the responsible for the influence of the L2 German over the other L2s, factors, such as the higher proficiency of these participants in the L2 and recency may also have played a role. However, from the results of the present study it is possible to affirm that typology did not surpass the role of the first language.

In the present study, participants who in their L2, estimated their proficiency as low, did not have CLI related to their L2. On the other hand, participants who estimated their proficiency in the L2 as high, had some influence from the L2 into the L3. A study with similar findings was the one by Bayona (2009), where higher proficiency in the L2 facilitated the recognition of morphosyntactic and semantic features of the L3. Chin (2009), on the other hand, investigated the acquisition of the preterit and imperfect marking in L3 Spanish, by L1 Chinese and L2 English learners, and concluded that L2 is an important source of influence even with low proficiency. Still concerning proficiency in the L2, Jaensch (2009) investigated the effect of L2 English proficiency in the acquisition of L3 German. The results of her study show that the higher proficient L2 speakers outperformed the lower proficient L2 speakers in the L3 tasks. However, L2 proficiency seemed to be effective only with the low intermediate L3 learners and not with the high intermediate L3 learners.

Another factor that may have interacted with CLI in the present study is L2 recency, since participants who reported using more frequently the L2, had more influence of this language than participants who used the L2 less frequently. On the other hand, in Bayona's (2009) study, the role of recency was investigated and it resulted in a neutral factor as influencing the participants' performance.

Regarding the comparison between learners of English as a third and as a second language, the results of the present study showed no significant advantage for the L3 learners. The same result was found in the study by Shooshtari (2009), who investigated English as an L2 and as an L3. He observed no effective advantage from bilingualism on the acquisition of a third language, as in the present study, where the performance of the L3 learners of English did not outperform the L2 learners.

Another important result of the present study was that the type of the task influenced the results, since in the oral task there were more cases of CLI than in the written task, which is a more formal language expression. This result is in line with the one defined by Dewaele (2001), who concluded that the formality of the task influenced the amount of crosslinguistic effects, since code switches were less numerous in the formal situation.

At the end of this section, it has to be mentioned that the area of CLI in TLA is very complex, since there are many factors which may interfere in the studies of this area. The comparison of the results of the literature with the present study showed that studies, in general, have investigated different aspects of TLA, in lexical, syntactic and phonological areas and that these studies' conclusions do not completely agree among them and also with the present study. However, it can be seen that there are some aspects of the studies mentioned which agree with the present study and others which do not agree.

In short, this section shows that there are many variables in the studies related to CLI, mainly when TLA is concerned, and that it is not possible to analyze all these variables in a single study. The different contexts and different participants with their own languages may cause this divergence among studies in this area. However, it can be affirmed that for the Brazilian context and for the group of English learners who participated in the present study, the L1 is the source of influence for the acquisition of English as a second and as a third language.

4.7 Answer to the research questions

Having presented and discussed the results of this study, this chapter ends with the restatement of the research questions and the presentation of the corresponding answers. The answers of the research questions are also confronted to the hypothesis initially proposed in the beginning of this study.

Research question 1: Is the L1 or the L2 the source of transfer in English as an L3?

The source language of transfer for the L3 learners of English is the first language, Brazilian Portuguese. The results of the study pointed to a significant influence of the first language, Portuguese, in the oral and written production of both the L2 and L3 learners of English. At the lexical level transfer from the L2 occurred only concerning transfer of form. At the syntactic level there were a few cases of transfer from the

L2 in the oral task. This finding contradicts Hypothesis 1, Participants will transfer more terms from the L2 than from the L1. Consequently, the results of the present study also contradict Llama, Cardoso & Collins, 2007; Shooshtari, 2009; Bardel & Falk, 2007, whose studies found that the source of L3 transfer is the L2.

Research question 2: How do typological distance, order of acquisition, L2 status and L2 recency affect the oral and written narratives produced in English as an L3 by speakers of Brazilian Portuguese?

The factor that affected CLI the most was order of acquisition, since participants were more influenced by the first language they learned, Portuguese, than their L2s. Concerning the results of the influence of the L2s, typological distance seemed to be the strongest factor in CLI since participants who had German as their L2, which is typologically closer to English than the other L2s of this study, were influenced by German in the production of English as an L3, whereas the other participants who had Romance languages as their L2 did not manifest any influence of their L2s in L3 production. L2 recency also has to be considered since participants who had German as their L2 reported using this L2 more frequently than the other participants who had Romance languages as the L2. L2 status was not manifested in the present study since the foreign language effect was not found to be more influential than the mother tongue. For the reasons explained, the findings contradict Hypothesis 2, which states that, Each factor will affect L3 production of narratives to different degrees, with L2 status as the most relevant factor and L2 recency as the least relevant one. Hypothesis 2 was also disconfirmed and another order, based on the results of the study is proposed:

Order of acquisition > typological distance > L2 recency > L2 status

This order means that for the context of Brazil and for the participants of the present study order of acquisition is the most important factor in CLI. The least important factor is L2 status.

Research question 3: Does previous knowledge of a second language helps in the learning of a new foreign language?

The answer is perhaps, since in the present study the performance of the two groups, the L3 and L2 learners of English was very similar when CLI at the lexical level is concerned. However, the results of CLI at the syntactic level in addition to the grammatical errors produced by participants, show that the L2 learners had less interference in their production and were also more accurate than the L3 learners. These

differences between the L2 and L3 learners may be a result of the greater source of influence that the L3 learners have, as compared to the L3 learners. In order to produce the target language, the L3 learners have to inhibit two languages (L1 and L2), whereas the L2 learners have to inhibit only the L1. Another factor that may interfere in the performance of the two groups is that the L3 learners who participated in the present study acquired their L2 mainly informally. Consequently, they might not have developed metalinguistic awareness and language learning strategies as if they had acquired this L2 in a formal classroom. For instance, various researchers (e.g., Jessner, 2006; Gass & Selinker, 2008; Cenoz, 2001; Mehhorn, 2007) state that the L3 learner might have an advantage when acquiring the third language, since he is a more experienced language learner, who has developed metalinguistic awareness and language learning strategies, when acquired the L2. It could be that participants of the present study did not develop this experience in language learning, since they did not learn their L2 in a formal setting, through instruction. In the present study, it is possible to infer that the L2 learners were more accurate and had less CLI in their production of the target language. For the reasons stated, the present study did not confirm Hypothesis 3, which states that the L3 learners of English will have a better performance than the L2 learners of English.

CHAPTER V

FINAL REMARKS

This chapter presents the main findings of the present study whose main goal was to investigate crosslinguistic influences in the acquisition of English as a third language, as compared to the acquisition of English as a second language. More specifically, this study aimed at analyzing the influence of the first and second languages in the acquisition of English as a third language. In order to pursue these objectives, learners of English as a second and as a third language participated in this study. These participants performed two narrative tasks, one written and one oral. The analysis of these two narrative tasks provided answers to the three research questions proposed in this study.

The present chapter is organized as follows: section 5.1 presents the main findings of this study. Section 5.2 presents the limitations of the study and offer suggestions for further research. Section 5.3 presents pedagogical implications of this study.

5.1 Conclusions

This section presents the main findings of the present study obtained through the data analyzed and the three research questions proposed.

- 1. For the L3 learners of English who participated in the present study the main source of language transfer is the first language. The results of the study pointed to a significant influence of the first language, Portuguese, in the oral and written production of both the L2 and L3 learners of English. However, it was shown that transfer from the L2 is possible, but in the case of the present study it occurred at the lexical level, only when transfer of form was concerned. At the syntactic level, transfer from the L2 also occurred but it did not surpass the influence of the first language. These findings are not in agreement with Llama, Cardoso & Collins (2007); Shooshtari (2009); Bardel & Falk (2007), whose studies found that the source of L3 transfer is from the L2. In other words the results of the present study show that L2 may influence the acquisition of an L3. However, this influence is manifested mainly at the lexical level, when transfer of form is concerned. For the present study, it can be concluded that the first language plays a privileged role compared to the second.
- 2. Concerning the factors that may interact with CLI, the results of the

present study showed that the most important factor was order of acquisition, since participants were more influenced by the first language they had learned, Portuguese, than by their L2s. Concerning the results of the influence of the L2s, typological distance seemed to be the strongest factor in CLI since participants who had German as their L2, which is typologically closer to English than the other L2s of this study, were influenced by this language in the production of English as an L3. The other participants who had Romance languages as their L2 did not manifest any influence of the second language in L3 production. L2 recency also has to be considered since participants who had German as their L2 reported using more frequently this L2 than the other participants who had Romance languages as the L2. L2 status was not manifested in the present study since the foreign language effect was not observed to be more influential than the mother tongue. Based on these findings an order of factors which interact with CLI was proposed:

Order of acquisition > typological distance > L2 recency > L2 status

This order means that for the context of Brazil and for the participants of the present study, order of acquisition is the most important factor in CLI, whereas the least important factor is L2 status.

The fact that L2 influence for the L3 learners of English was manifested only when the L2 was German can be explained by the information obtained through the biographical questionnaire, since the L2-German speakers considered themselves to be more proficient in the second language than the other L2-speakers; they also reported using this L2 more frequently. Another factor that cannot be disregarded is that, from all the languages involved in this study, the most typologically similar to English is German. Therefore the results of the study are consistent with the information of the questionnaires. However, it is not possible to determine which of the factors mentioned was responsible for the influence of L2 German, when this influence is compared to the influence exerted by the other L2s. It is possible that the interaction among typology, proficiency and L2 recency influenced the results.

3. Concerning the performance of the L2 and L3 learners of English, the results of the present study showed that, at the lexical level, participants had a similar performance. However, the results of CLI at the syntactic level, in addition to the grammatical errors produced by participants, showed that the L2 learners had less interference in their production and were also more accurate than the L3 learners. This is not a surprising result, since the L3 learners have two sources of influence (the L1 and the L2) and the L2 learners have the possibility of influence only from

- the L1. According to these results, in the present study, there was no significant advantage for L3 learners. This may be explained by the fact that the L3 learners of the present study did not acquire their L2 in a formal setting. By acquiring the L2 naturally, these participants might not have developed metalinguistic awareness and language learning strategies, as reported in the literature (Jessner, 2006; Gass & Selinker, 2008; Cenoz, 2001; Mehhorn, 2007).
- 4. Another interesting finding of the present study was that the type of the task influenced the results. In the oral task, there was a significant higher number of instances of CLI, when compared to the written task. This can be explained by the fact that the written task may be seen as a more formal language activity.

5.2 Limitations and suggestions for further research

This section presents the limitations of the study and suggestions for further research. The limitations of the present study are the following:

- 1. Number of participants: due to the requirements for participants to be part of this study, in terms of their background language knowledge, their level of proficiency in the target language, English, and also due to time constraints it was not possible to have a larger group of participants. For this reason, the results of the present study should not be generalized. For further research it would be interesting to have a larger number of participants, mainly a larger number of participants from each language group (L2s). It would also be interesting to measure participants proficiency in their L2s and to vary participants' proficiency in the L2 in order to evaluate whether proficiency, typology or recency are the most important factors interfering with CLI.
- 2. Type of analysis: this was a qualitative study, in which an open analysis of the data was carried out, which means that no specific syntactic or lexical aspect of English was previously chosen to be analyzed. In further research, a specific syntactic or lexical aspect of the target language could be investigated. For instance, at the lexical level, the influence of previous languages in transfer of form and meaning could be investigated. At the syntactic level, the acquisition of the Past Simple could be investigated, by learners of English with different background languages.
- 3. Data analysis: in the present study, there was also no second rater for data analysis; it was carried out only by the researcher herself. In further research, it would be interesting to have more raters analyzing the data.

- 4. Aspects which were analyzed: the analysis of the data focused at the lexical and syntactic levels of English. However, phonological and pragmatical aspects were not considered. In further research, these aspects could be investigated in order to analyze whether the results would differ from the present study or not.
- 5. Method of data elicitation: the tasks applied in the present study were two narratives, one oral and one written. No other task genre was used in this study. In further research, different genres could also be used in order to elicit data.

5.3 Pedagogical implications

An issue that was raised in the present study was the source of contact with English that students have, besides the English course. Students reported interacting with English, in the following order of importance: 1) by listening to music, 2) by watching films, 3) by reading, 4) by talking to other students or English speakers, 5) by playing video games. Teachers could benefit from this information for their classes.

Concerning the influence that background languages may have in the process of acquiring the target language, which is the main goal of the present study, the analysis of the results of the present study, made me understand, as an English teacher, that some mistakes made by students who have Portuguese as a native language are an influence of this L1. This study can help teachers understand how students deal with lexical and syntactic aspects of English based on their previous knowledge of Portuguese. The same holds true for the influence of the second language in the process of learning English. Knowing more about the effects of CLI can help teachers understand why their students tend to use certain structures instead of others. Teachers can, thus, plan their instruction so that students' metalinguistic knowledge is enhanced. In addition, L3 learners who acquired the L2 in naturalistic settings may need more instruction in order to develop metalinguistic awareness, when compared to L3 learners who have learned the L2 in a formal setting.

This study also contributes to the understanding that languages may interfere and interact with each other. For this reason, it is important for teachers to consider the context where they are teaching English, students' background languages and whether the student is a second, third, or fourth language learner. Finally, it has to be mentioned that the study of CLI is important in the understanding of the processes

that undergo language acquisition, not only third language acquisition, but second, fourth or Ln.

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APPENDIX A

UNIVERSIDADE FEDERAL DE SANTA CATARINA CENTRO DE COMUNICAÇÃO E EXPRESSÃO DEPARTAMENTO DE LÍNGUA E LITERATURA ESTRANGEIRAS Programa de Pós Graduação em Inglês e Literatura Correspondente

Este questionário é parte do estudo intitulado "A influência translinguística na aquisição do Inglês como terceira língua" que eu, Pâmela Freitas Pereira Toassi, estou conduzindo, sob a orientação da professora Dra. Mailce Borges Mota. Agradeço desde já sua participação, que é de extrema importância para a realização desse estudo.

Questionário para estudantes de inglês

Nome:			
Idade:Sexo:()M()F Profissão:			
Nacionalidade: Local de Nascimento:			
Nacionalidade dos pais:			
Grau de escolaridade			
() Nenhuma escolaridade			
() Ensino Fundamental: de 1° à 4° série			
() Ensino Fundamental: de 5° à 8° série			
() Ensino Médio completo () Ensino Médio incompleto			
() Superior completo () Superior incompleto			
1) Você aprendeu outra língua além do Português quando era criança?			
Se sim, qual?			

Caso você tenha aprendido duas línguas, simultaneamente, quando era criança, responda às perguntas de 2 a 8 da **Parte A**. Se você aprendeu apenas o Português quando criança, responda às perguntas de 2 a 8 da **Parte B**.

Parte A

2) Você se considera mais fluente em uma das línguas que você aprendeu quando criança? Caso afirmativo, qual delas?			
consid língua () a () as () a		motivo para a sua uma alternativa. mília e amigos comunidade a como a língua de	sido afirmativa, o que você maior fluência em uma das instrução
Assina () fa Língua () ua	ale tantas alternativa alando em casa, na c a: sando a língua no di a: sando a língua na es a: sando a língua na es a: utras situações.	as quanto necessári convivência com fa ia-a-dia, em interaç scola, pois era falac	
5) Voo idioma () si () na 6) Cor Líng ()	as? m. Qual língua? ão	Por quu conhecimento da L	anto tempo? s suas línguas maternas? íngua:) Regular) Bom
	Ótimo	(· ,

7) Com que frequência você usa	a cada uma das suas línguas maternas?
Especifique a frequência de cad	a uma.
Língua:	Língua:
() o tempo todo	() o tempo todo
() quase o tempo todo	() quase o tempo todo
() em certas ocasiões	() em certas ocasiões
() raramente	() raramente
() nunca	() nunca
	as maternas? Assinale tantas alternativas
quanto necessário.	
Língua:	Língua:
() para leituras no trabalho	() para leituras no trabalho
() para pesquisas	() para pesquisas
() para ver filmes, ouvir	() para ver filmes, ouvir
músicas, jogar vídeo gam	e músicas, jogar vídeo game
() para conversar com	() para conversar com
familiares e amigos.	familiares e amigos.
() para outros objetivos.Especifique:	() para outros objetivos.Especifique:
Parte B 2) Você fala, lê, escreve ou com Português e do Inglês? Caso afi	npreende alguma outra língua além do rmativo, qual?
da Parte B. E continue responde 3) Caso a resposta da questão ar adquiriu essa outra língua? () em escola de idiomas () na escola () em casa	nterior tenha sido afirmativa, como você

4) Caso você tenha estudado essa língua em escola de idiomas, indique
por quanto tempo.
() até 6 meses
() até 1 ano
() até 2 anos
() mais de 2 anos
5) Como você continuou a desenvolver essa outra língua? Assinale
tantas alternativas quanto necessário.
() falando em casa, na convivência com família e amigos
() usando a língua no dia-a-dia, em interações com a comunidade
() usando a língua na escola, pois era falada pelos professores
() usando a língua na escola, pois se tratava de uma disciplina
() outras situações.
Especifique:
•
6) Com que frequência você usa essa segunda língua?
() o tempo todo
() quase o tempo todo
() em certas ocasiões
() raramente
nunca
7) Como você usa essa língua?
() para leituras no trabalho
() para pesquisas
) para ver filmes, ouvir músicas, jogar vídeo game, para leituras de
lazer
() para conversar com família e amigos
) para outros objetivos. Especifique:
J 1 1
8) Como você avalia o seu conhecimento nessa segunda língua?
() Regular
() Bom
() Ótimo

Perguntas sobre o aprendizado do Inglês

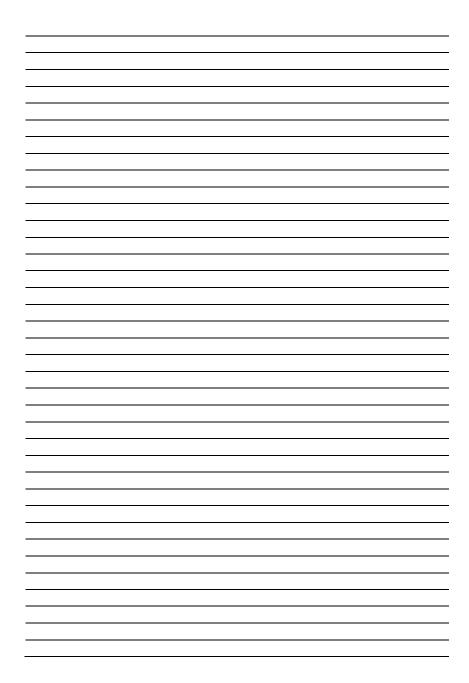
((() entre 1 e 7 anos) entre 7 e 14 anos) entre 14 e 21 anos) após 21 anos
10 ((((O) Com que idade você iniciou o curso regular de inglês?) entre 1 e 7 anos) entre 7 e 14 anos) entre 14 e 21 anos) após 21 anos
((de (()	1) Antes de iniciar o curso regular de inglês, como você tinha contato om o idioma?) através de filmes, músicas, jogos de vídeo game, internet, TV, rádio) através de conversa com pessoa fluente em inglês ou falante nativo e inglês) através da escola) não tinha contato com o idioma 2) Qual era a sua opinião sobre o inglês antes de iniciar o curso? Essa pinião continua a mesma?
13 ((((((3) Por que você está aprendendo inglês?) para viajar) por motivo profissional) para aperfeiçoamento nos estudos) por motivo de lazer) outros, nesse caso, por favor, especifique:

15	5) Você possui/ possuiu contato com falantes nativos de inglês?				
() sim				
() não				
16	6) Você já esteve em algum país de língua inglesa?				
() sim				
() não				
17	7) Se sim, por quanto tempo?				
(
() até 6 meses				
) de 6 meses a 2 anos				
() mais de 2 anos				
`	,				
18	3) Além de frequentar aulas de inglês, em quais outras situações você				
	m contato com a língua? Assinale tantas alternativas quanto				
	ecessário.				
() vendo filmes				
() ouvindo músicas em inglês				
() jogando vídeo game				
() falando com outros alunos ou falantes do idioma				
`					
() outros, especifique:				
_					
19) Na sua opinião, o inglês é importante no mundo de hoje? Por que?				
_					
20) No momento você está estudando alguma língua alem do Inglês?				
() sim. Qual língua?				
() não				

APPENDIX B

NARRATIVE TASK – WRITTEN PRODUCTION

Nome:
A tarefa que você irá desenvolver agora tem como objetivo a produção escrita de uma narrativa em inglês . Para tanto, peço que você observe com atenção toda a sequência da estória "Frog, where are you?" que está sendo contada nos quadrinhos. Após ter observado a sequência da estória, conte a estória a partir do que você observou, com o maior número de detalhes possível. Conte a estória como se eu não tivesse acesso às figuras dos quadrinhos. A pesquisadora não poderá servir como fonte de informação para a tarefa. Também não poderá ser utilizado rascunho. Você terá um tempo máximo de 30 minutos para escrever de 150 a 250 palavras contando a estória. Obrigada por participar deste estudo!



APPENDIX C

NARRATIVE TASK – ORAL PRODUCTION

A tarefa que você irá desempenhar agora tem como objetivo a produção de uma narrativa oral em **inglês**. A sua narrativa será gravada para que possa ser utilizada no estudo posteriormente. Eu gostaria que você me falasse, em inglês, sobre um filme que você assistiu recentemente e que tenha gostado muito, ou seja, um filme que você assistiria pela segunda vez e que recomenda que seja assistido. Tente dar o máximo de detalhes possível. Você terá de 5 a 7 minutos para contar o filme. Não haverá tempo para planejamento e/ou preparação escrita para o desenvolvimento da estória.

Obs.: Lembre que a pesquisadora não poderá servir como fonte de informação para a realização da tarefa.

Aqui estão algumas perguntas para ajudá-lo a lembrar do filme:

Qual o gênero do filme (drama, comédia, terror, documentário, suspense, romance, aventura, ação, infantil, etc.)?

Qual o assunto principal abordado no filme?

Qual o local onde a estória se passa?

Em que época ocorre o filme?

Quais os principais atores do filme?

Por que você gostou do filme?

O filme tem alguma mensagem que seja relevante mencionar?

Como a estória se desenvolve?

Existem obstáculos para o desenvolvimento da estória?

Qual o climax da estória?

Como se dá o desfecho da estória?

APPENDIX D

Florianópolis, 2011

Para:

De: Pâmela Freitas Pereira Toassi

UFSC/ PPGI

Ref: Permissão para coleta de dados

Caro Professor

Eu, Pâmela Freitas Pereira Toassi, aluna de Mestrado em Língua Inglesa do Programa de Pós Graduação em Inglês (PGI) da Universidade Federal de Santa Catarina (UFSC), sob supervisão da Professora Dra. Mailce Borges Mota, venho solicitar sua permissão para coletar dados referentes a minha pesquisa junto aos alunos de inglês de nível intermediário de sua escola, que sejam voluntários. A coleta de dados faz parte do trabalho de pesquisa de mestrado intitulado: "A influência interlinguística na aquisição de inglês como terceira língua", a qual tem como objetivo investigar a influência das línguas precedentes na aquisição de outra língua estrangeira, nesse caso, o inglês.

A participação dos alunos é voluntária e todos os participantes terão sua identidade preservada. Os instrumentos de coleta de dados consistem da aplicação de (1) um questionário para investigar o histórico de estudo de línguas estrangeiras do aluno bem como seu interesse por estas; (2) um teste de proficiência para certificação do nível de fluência do aluno na língua inglesa, (3) duas tarefas de elicitação de desempenho, sendo uma tarefa oral e outra escrita. As atividades acima serão realizadas fora do horário de aula do aluno voluntário. Ao término da pesquisa, os resultados estarão disponíveis para consulta conforme solicitação. Informações adicionais sobre este estudo podem ser obtidas com a Professora Dra. Mailce Borges Mota (mailce@cce.ufsc.br).

Certa de sua colaboração, agradeço desde já.

Pâmela Freitas Pereira Toassi.

APPENDIX E

Formulário do Consentimento Livre e Esclarecido

Título do Projeto: A influência translinguística na aquisição do inglês como terceira língua

Caro(a) aluno (a),

Gostaria de convidá-lo a participar do meu estudo que busca investigar a aprendizagem de línguas estrangeiras, no caso a língua inglesa, por falantes de outras línguas estrangeiras.

Os estudos nessa área visam não só compreender os processos envolvidos na aquisição de uma ou mais língua estrangeira, mas também desenvolver meios de aperfeiçoar o processo de ensino/ aprendizagem da língua estrangeira. Você está sendo convidado a participar desse estudo por encontrar-se em nível intermediário de aquisição da língua inglesa como língua estrangeira. Peço que você leia este formulário de consentimento e tire todas as dúvidas que possam surgir antes de concordar em participar no estudo.

(1) Informações gerais

Este estudo está sendo conduzido por mim, Pâmela Freitas Pereira Toassi, aluna de mestrado do curso de Pós- Graduação em Língua Inglesa da Universidade Federal de Santa Catarina, sob a orientação da Professora Dra. Mailce Borges Mota.

(2) Objetivo do estudo:

O objetivo geral deste estudo é analisar a influência das línguas precedentes na aquisição do inglês como língua estrangeira.

(3) Procedimentos:

Se você concordar em participar deste estudo, você será solicitado primeiramente a responder um questionário, para investigar o seu histórico de aprendizagem das línguas materna e estrangeira. Para certificar o seu nível de conhecimento da língua inglesa, você também será solicitado a realizar um teste de proficiência. Por último, você será solicitado a realizar duas narrativas: uma oral, sobre um assunto do seu cotidiano, e a outra escrita, a partir de uma sequência de figuras.

(4) Riscos e benefícios do estudo:

Não há riscos em participar deste estudo. Pelo contrário, participando deste estudo você contribuirá para a pesquisa sobre a aquisição de línguas, o que beneficiará a sua aprendizagem do inglês, bem como de futuros alunos. Os dados coletados nesse estudo serão

acessados apenas pela pesquisadora e orientadora da pesquisa. Mesmo após os resultados se tornarem públicos, sua identidade será totalmente preservada. Não haverá nenhuma informação que leve a sua identificação.

(5) Natureza voluntária do estudo:

Você é livre para decidir se deseja participar ou não desse estudo. Como a participação é voluntária, você pode desistir a qualquer momento sem nenhum prejuízo para você.

(6) Contatos:

A pesquisadora responsável por este estudo é Pâmela Freitas Pereira Toassi, e você pode contatá-la pelo email pam.toassi@gmail.com ou pelo telefone (47) 9954-3817.

Declaração de consentimento:

Declaro que li as informações acima e esclareci quaisquer dúvidas. Eu concordo em participar neste estudo.

Você receberá uma cópia deste formulário.

Nome:

Assinatura do Participante

Assinatura da Pesquisadora Responsável

Data