

The Role of Previously Learned Languages in the Thought Processes of Multilingual Writers  
at the *Deutsche Schule Barcelona*

Running head: THE ROLE OF PREVIOUSLY LEARNED LANGUAGES IN THE  
THOUGHT PROCESSES OF MULTILINGUAL WRITERS AT THE *DEUTSCHE  
SCHULE BARCELONA*

The role of previously learned languages in the thought processes of multilingual writers at  
the *Deutsche Schule Barcelona*

MA Thesis

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**Abstract**

To shed light on the type of behavior which goes on in multilingual classrooms, this study aims to investigate the lexical search processes of 10 upper-intermediate level German/Spanish/Catalan(/French) multilinguals from the *Deutsche Schule Barcelona* while writing in English. The results show that multiple languages were activated during composition, and that these languages were not limited to the target language and the L1. Referral to previously learned languages was a common strategy used by all participants to tackle lexical problems. Generating pre-texts was the most common purpose for the activation of these languages. The L1 of participants and the school languages worked together to influence language choice in strategic behavior. Qualitative analysis of these strategies showed evidence of linguistic awareness.

## 1. Introduction

Third language acquisition (TLA) and multilingualism are becoming increasingly common nowadays, especially in Europe. This is related to current trends in globalization such as increased immigration and the presence of English worldwide (Jessner, 2006), as well as the fact that speakers of minority languages like Catalan and Basque receive educational support in those languages (Cenoz et al., 2001). Not only is the number of multilingual individuals increasing, the ability to communicate in several languages is viewed as more desirable than ever. The European Commission's White Paper on Education and Training (1995) defines multilingualism as an integral part of European identity and states as an objective that citizens should develop proficiency in at least two Community languages as well as their native language. In order to achieve such ambitious goals, children are often exposed to a first foreign language at an early age and then go on to learn an additional language in secondary school. The modern foreign language classroom is made up of experienced language learners, who must be taught as efficiently as possible in order to meet challenging curricular demands within restrictive time-constraints.

Traditionally, languages have been kept separate in the classroom, and the strategic use of other languages, such as code mixing and borrowing, has been discouraged. However, new approaches to language teaching suggest that educators capitalize on the connections between languages that develop naturally in the multilingual mind. Introspective studies of multilingual processing have sought to illuminate how multilinguals consult other languages when performing oral (e.g. Cenoz, 2001; 2003b), translation (e.g. Gabrys-Barker 2006) and written tasks (Jessner, 2006). These studies have yielded important findings about multilingual behavior, but more research is needed in various educational contexts with different language combinations to inform the development of this innovative approach to language teaching.

The present study aims to contribute to what is known about multilingual processing and multilingual writing by exploring the way multilinguals search for words while carrying out a composition task in an immersion school context where two Germanic languages, German and English, and up to three Romance languages, Spanish, Catalan and French, are used daily. This project was inspired by "The Tyrol Study" (Jessner, 2006) in which think-aloud protocols (TAPs) were used to gain insight into the cross-lexical problem solving behavior of seventeen German/Italian bilinguals who wrote three tasks in English—a letter, a summary and an essay. Whereas Jessner's study included adult subjects in an Austrian

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university context, the research presented here was carried out with adolescent participants, who attend a German immersion school in the bilingual region of Catalonia, where Spanish and Catalan are spoken as co-official languages and English is learned as a foreign language. The decision to use participants from this population was made in order to focus on the kind of cross-lexical problem solving behavior that is naturally exhibited by multilinguals. The tool used for data elicitation, an academic writing task, represents a common demand that is placed on learners of this age group.

In the present study, the following research questions will be addressed:

1. To what extent do multilingual writers think in previously learned languages while composing in English?
2. To what extent do learners rely on previously learned languages when searching for lexical items in English?
3. What role is played by previously learned languages in lexical searches?

Due to the exploratory and pilot nature of the current project, and in contrast to Jessner (2006), this study has been carried out with a smaller group of ten participants and makes use of only one writing task.

The methodology used in collecting and analyzing the data for this study draws on both multilingualism and writing research. The field of L2 writing has made frequent use of TAPs in studying bilingual composing behavior. Bi- and multilingual writing is one of the most highly researched areas within writing research. Surprisingly however, most writing research focuses on college-age or adult writers over the age of 18, and not much research has been done on the school-age population (Juzwik et al., 2006, pp. 463-466). Writing studies involving more than two languages are also extremely rare (see however Armengol, 2001 and Armengol & Cots, 2009 for trilingual writing in a Catalan context). Thus, this study can also be seen as an attempt to contribute to filling these gaps in the writing literature.

After a brief note on terminology, the first portion of the literature review will focus on multilingualism as a field, and the second will include a review of L2 writing studies, particularly those that have focused on the strategic behavior of bilinguals.

## **2. Literature Review**

### **2.1 Note on terminology**

In language acquisition research, it is common to see the terms “bilingual” and “multilingual” used interchangeably. According to Jessner, the task of defining the latter “can be described as one of the most daunting research questions of current linguistics”

(2008b, p. 20). However current research on multilingualism indicates that an important distinction should be made between the two terms. For this purpose I will use the term, “bilingualism” to refer to the knowledge of two and only two languages, while “multilingualism” to refer to the knowledge of more than two languages (see Cenoz et al., 2003, DeAngelis, 2007, Jessner, 2008b).

## **2.2 Multilingualism**

It is now widely accepted that most people are either bi- or multilingual. This is certainly not a new development, but has only recently been acknowledged by the scientific community. If current trends continue, the number of bi- and multilingual speakers is expected to rise. In light of this fact, a growing number of applied linguists are turning their attention toward multilingualism and TLA. Traditionally, language acquisition research has focused primarily on first- and second language acquisition (FLA and SLA respectively). Many studies of SLA based their approach on the ideal of a monolingual native speaker and thus viewed bilinguals as deficient in at least one of their two languages. However, the idea that “a bilingual is not two monolinguals in one person” (Grosjean, 1989, p. 4) but a “multi-competent” individual who develops unique skills and knowledge in each of his or her languages (Cook, 2010) led researchers to adopt more holistic views and avail itself of this monolingual bias.

Now, a growing number of researchers argue that language acquisition by bilinguals is fundamentally different from language acquisition by monolinguals and that without more studies of TLA and multilingualism, our knowledge about how languages are learned is limited (Cenoz et al., 2003; Flynn et al., 2004; DeAngelis, 2007). Some, such as DeAngelis (2007), argue that language acquisition research should be based on a multilingual- rather than the monolingual norm, while other views, such as the Dynamic Model of Multilingualism, or DMM, (Herdina and Jessner, 2002) attempt to integrate all language acquisition research.

## **2.3 Characteristics of multilingual acquisition**

One of the major tasks of TLA researchers is to identify characteristics that distinguish TLA from SLA. First of all, TLA is more complex and varied than SLA. This presents a challenge to researchers, who must deal with a multiplicity of variables. Whereas in bilingualism there are two possible orders of acquisition, (consecutive or simultaneous), there are many more possibilities when more than two languages are involved, especially

considering that language learning can be interrupted and restarted after another language has been introduced (Cenoz, 2000, p. 40). Jessner (2008b, p. 271-272) also points out that a learner's dominant language does not always correspond to the L1 and may change over time due to attrition. The complexity of multilingual acquisition orders also implies a great deal of variation in other factors. For example, languages may be learned in formal or informal contexts, at an early age or later in life. The languages involved may also differ in terms of status, domains of use and linguistic typology. (Cenoz, 2000, pp. 41-42)

#### **2.4 Cross-linguistic Influence and language switches during production**

Studies of cross-linguistic influence (CLI) have usually limited their focus to the effects of a native language on a non-native language. However, CLI is a more complex process when three or more languages are involved, as transfer can occur between any of the languages in a multilingual's repertoire. These effects can be bidirectional (Pavlenko and Jarvis 2002), and in the case of 'combined CLI,' multiple languages work together simultaneously to affect a third language (DeAngelis 2007, p. 132).

As numerous studies have shown, (e.g. Odlin & Jarvis, 2004) CLI is often positive. Language learners have been found to rely on previously acquired languages to support the acquisition of a new language. Interestingly, L3 learners often prefer the L2 as a source of transfer, especially in early stages of acquisition (e.g. Hammarberg 2001).

An important discovery about CLI in multilingual systems has been that languages can take on separate roles during language production. Williams and Hammarberg (1998; Hammarberg, 2001) analyzed language switches by a multilingual learner of Swedish and found different roles for the subject's L1 English and L2 German. Whereas English was used for practical purposes, such as eliciting a target word from her interlocutor, German language switches did not seem to perform a pragmatic function. She also activated German to generate hypothetical lexical items in the target language (Hammarberg, 2001). Typological similarity, proficiency and recency of use were all mentioned as factors that contributed to this choice, but German's selection as a supplier language was attributed to its status as an L2.

Cenoz (2003b) proposed a continuum between transfer and interactional strategies and found that, when narrating a picture story in L3 English, her subjects relied on their L2 Basque for interactional strategies, while their L1 Spanish was more prevalent in transfer lapses. She attributed this to the typological similarity between Spanish and English and the fact that the communication took place in the sociolinguistic setting of a Basque school.



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Jessner (2006) found different roles for Italian and German in the compensatory strategies of trilingual learners of English, who thought aloud while writing in L3 English. German, the dominant language of most of the subjects, was preferred for starting a search for lexical items and for borrowing, while Italian was used to evaluate items about which learners had doubts.

### **2.5 Factors affecting CLI**

Studies of CLI in multilinguals have identified many factors that interact to determine which languages are activated during multilingual speech production. Hall and Ecke (2003) group them into five domains: learner, learning, language, event, and word factors and point out the difficulty of controlling for such a large number of variables in order to establish their relative influence (pp. 72-73). While this is true, a few of the above-mentioned factors that appear frequently in the CLI literature seem to play an instrumental role in determining language choice.

### **2.6 Bilingual advantage in additional language learning**

Bialystok (e.g. 1988) showed that the presence of two languages in the mind results in certain cognitive advantages, such as enhanced metalinguistic awareness and higher capacity for controlled processing, which may be helpful in additional language learning. Hufeisen's factor model (1998; Hufeisen & Marx 2007b, as cited in Jessner, 2008b, p. 22-23) posits that language learning experience provides an additional advantage that can be tapped into for additional language learning. Thus, another key difference between SLA and TLA is that in SLA, learners are only able to refer to their first language knowledge, whereas in TLA, learners have the possibility of drawing on their combined linguistic knowledge as well as the cognitive skills that develop as a result of having learned a language.

An important question in multilingualism research concerns the effect of bilingualism on TLA. In a review of studies comparing bilinguals to monolinguals in additional language learning, Cenoz (2003a p. 83) found an advantage for bilinguals when language acquisition occurred in additive contexts and general proficiency was the construct being measured, especially when the languages were typologically similar, which she attributed to increased metalinguistic awareness, knowledge of personal learning strategies, enhanced communication strategies and an increase in potential transfer bases.

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These findings demonstrate that important differences exist between SLA and TLA and highlight the need for more investigation into the way multilinguals draw on previously learned languages and the knowledge about language that is gained through language acquisition and how these processes may contribute to the advantage in additional language acquisition observed by Cenoz (2003a). The present study aims to contribute to filling this gap by exploring multilingual behavior in school-age learners in an immersion school context. Similar research should be carried out in other educational contexts involving learners of various age groups and diverse linguistic configurations in order to give a comprehensive view of multilingualism. .

### 2.7 A Dynamic Model of Multilingualism

Currently, one of the most influential multilingual models of multilingual processing and acquisition is the DMM (Herdina & Jessner, (2002), where languages are not conceived of as separate entities but as dynamic, interdependent systems (LS) in the multilingual mind, whose interaction (CLIN) produces qualitative changes Multilingualism-factor, or M-factor) that can result in advantages in further language acquisition (Jessner 2008). The development of Multilingual Proficiency (MP) that arises from the model is shown in Figure 2.1.

**Figure 2.1** (from Jessner, 2008b, p. 26)

$$MP = (LS_1 + LS_2 + LS_3 + LS_n) + CLIN + M\text{-factor}$$

In this model, CLIN includes all interaction phenomena between the languages in a multilingual system, including transfer, interference, code-switching and borrowing, as well as the cognitive changes that occur due to the presence of other languages in the multilingual mind. The M-factor refers to those traits and behaviors that develop in the minds of experienced language learners and facilitate further language learning, such as linguistic awareness. Multilinguals are assumed to monitor their use of other languages through an “Enhanced Multilingual Monitor” (EMM), which selectively compares, inhibits and crosschecks languages during production (Jessner 2008, p. 276).

In the “Tyrol Study,” Jessner (2006) added that “a definition of linguistic awareness in multilinguals would have to include at least two dimensions of awareness in the form of cross-linguistic awareness and metalinguistic awareness” and that these components are related and interact with one another (p. 116). Cross-linguistic awareness is the tacit or

explicit awareness of the other active non-target languages during production, which is only made possible through metalinguistic awareness (Jessner 2008a, p. 279).

## 2.8 Writing Research

Most writing research has concluded that L1 and L2 writing are alike in that there are three main processes involved in composition—planning, formulation and revision, and that writers proceed through these stages not in a linear but in a recursive fashion (Manchón et al., 2000, pp. 13-14; 2007). However, one obvious difference that characterizes L2 composition is the activation of two languages rather than just one. As we will see, learners at all proficiency levels use their L1 while writing for a variety of purposes during all stages of composition. Studies of L2 writing have focused on identifying the purposes of switching to the L1 and how its use is affected by certain variables, such as L2 proficiency and task difficulty, which seem to interact in complex ways.

Some studies have focused on overall L1 use in L2 writing. Woodall (2002) measured L1 use by counting the number of switches into the L1, while Wang & Wen (2002) counted the number of L1 words in their subjects' protocols. The results of both studies indicated that, as L2 proficiency increases, L1 use decreases, although the latter note that this is truer for some purposes of L1 use than others.

Other researchers have focused on language-switching rather than on L1 use. Wang (2003) defined language-switching as problem solving behavior, which required a “prompter” in the L2. In a study of eight Chinese learners of English, he found that higher proficiency learners switched to their L1 more often than the lower proficiency learners. He identified three common purposes for switching to their L1 during composition: generating ideas, retrieving lexical items, and commenting on decisions. The groups displayed different approaches to these purposes. High proficiency learners generated ideas while planning at a global level before writing their compositions, but low proficiency writers favored on-line planning. Lexical searching for the high proficiency group involved producing a group of words in the L1 and translating the most appropriate candidate into the L2, or alternatively, generating related terms in the L2 and then evaluating them using the L1. The lower proficiency group tended to repeat the same lexical item in the L1 or segment their ideas into more easily translatable chunks. Finally, the metacomments of high proficiency learners focused on the appropriateness of their lexical choices in relation to the task, while lower proficiency learners used their L1 to express their insecurity about lexical items.

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Researchers working on The Murcia Writing Project have developed their own problem-solving approach based on cognitive psychology to explore L2 learners' composing behavior (see for example Manchón et al., 2005). The project includes think-aloud data from 21 students over 3 levels of proficiency performing writing tasks of varying complexity in their L1 Spanish and L2 English. Most of their research has focused on formulation, the writing process where thoughts are transformed into words, an area where L2 learners are especially prone to problems. Roca de Larios et al. (2001) showed that, while writers devoted similar amounts of time to formulation in the L1 and L2, problem-solving formulation occurred much more frequently in L2 composition.

In a previous study, Roca de Larios et al. (1996) put into four categories the types of problems that learners face when writing in the L1 and L2. P1 and P2 problems involve the retrieval of lexical items from either long-term memory (P1) or expressing in the target language an item that is available in the L1 (P2). P3 and P4 problems imply the existence of a target L2 item that either the learner feels can be improved upon (P3) or about which the learner is insecure (P4). P2 problems are, by definition, L2 specific. P4, on the other hand, are not, but in this study they were only found in L2 writing.

In a synthesis on lexical retrieval processes and strategies in L2 writing, Manchón et al. (2007) note that language-switching (in this case to the L1) is a common strategy for accessing or evaluating lexical items and relate it to the ideas of strategic transfer and multicompetence in SLA. In a recent study on the role of the L1 in lexical problem-solving behavior of advanced learners of L2 English, Murphy and Roca de Larios (2010) identified six roles for using the mother tongue during lexical searches. The most common purposes for L1 use were for evaluation, self-questioning and generating pre-texts, while metalinguistic appeal, metacomments and backtracking were found to a lesser extent.

Backtracking, or rescanning already produced text, is a strategy that can be deployed via the L1 or L2. When it is done via the L1, it serves as either a way to backtranslate a lexical item in order to evaluate it in the case of P4 problems or to stimulate text production in the case of P1 problems by reading over what one has already written (Manchón et al., 2000).

In the L2 writing literature, learners are said to draw on their "full linguistic repertoire" in order to produce their texts (e.g., Murphy & Roca de Larios, 2010, p. 64), but only research on multilingual writing can tell us to what extent this is the case.

Jessner's (2006) study on multilingual strategic behavior sheds some light on these issues. Her subjects drew on both German and Italian to solve lexical problems by generating

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lexical units and backtranslating. According to Jessner, evidence of a tacit awareness of language distance could be seen in her subjects' choice to activate German or Italian, particularly in the use of Italian cognates to backtranslate their lexical choices. Jessner analyzed metalanguage as the most explicit form of linguistic awareness, which was found to have a control effect on language switching behavior. The use of metalanguage was more frequent in trilingual strategies. It is worth noting that most of the Italian metalanguage in Jessner's study was produced by only two subjects, who were Italian dominant and had daily contact with the language through university classes and Italian-speaking friends. The German dominant students showed a clear preference for German in both their compensatory strategies and their metalanguage.

### 3. Method

The present study aims to contribute to what is known about multilingual strategic behavior by observing the language-switches in the thought processes of multilingual students at the *DSB* while writing in English.

This study will attempt to answer the following research questions:

1. *To what extent do multilingual writers think in previously learned languages while composing in English?*
2. *To what extent do learners rely on previously learned languages when searching for lexical items in English?*
3. *What role is played by previously learned languages in lexical searches?*

The first question is posed in order to investigate which languages are activated in the minds of the students when writing their compositions. Will the language with the most activation correspond to the subject's L1, or will they prefer to rely on supporter languages?

The second question aims to show how important cross-lexical strategies are to multilingual users in this context by revealing whether lexical problems are resolved only in the target language or with the help of other known languages.

The third question focuses on the roles of the various languages involved in lexical problem solving.

#### 3.1 Participants

The participants (8 females, 2 males; age 16-17) were from the 11<sup>th</sup> class of *Gymnasium* at the *DSB*. These students were selected because of their linguistic configuration.

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At the *DSB*, German is the vehicular language of instruction, but students also attend a daily Spanish class for all twelve years. Catalan is also taught for the first nine years, unless students opt to take extra Catalan classes or French, in which case two further years of Catalan are mandatory. English is taught as a foreign language for three hours a week from the 5<sup>th</sup> class onward. In the 11<sup>th</sup> class, students have approximately a B2 level of English. Table 3.1 shows the hours of instruction the students had at the time of the study.

The linguistic configuration of these students is particularly interesting because of the typology of the languages involved. Spanish, Catalan and French are Romance languages, whereas English and German both West Germanic. Despite this classification, English derives a large portion of its vocabulary from Romance languages. It will be interesting to see what effect linguistic typology has on their strategic behavior.

These languages also have a different status within the environment of the *DSB*:

German – vehicular language of instruction

Spanish – community language

Catalan – minority language of community

English – first foreign language

French – second foreign language

Students at the *DSB* come from varied backgrounds and may have German, Spanish or Catalan as an L1. This means that the languages will have a different status in the minds of the learners, which may also influence their behavior. In this study the participants were asked to identify their L1, and after this was cross-checked with the language background questionnaires, the rest of the study was carried out under this assumption.

All 26 students who volunteered to take part in the study were asked to fill out a sociolinguistic background questionnaire (see Appendix B). Only those who were born in Spain and had received all of their formal education at the *DSB* were asked to continue with the study, assuming that this would ensure a high level of proficiency in both German and Spanish. Students with Catalan as an L1 were assumed to be fluent in Spanish as well, due to the linguistic situation in Catalonia. As a further control for L2 proficiency, the remaining students completed the word recognition portion of the DIALANG\* test in their self-reported second language (German or Spanish), and only those who scored above 600 (advanced learners) were included. After these measures were taken, eleven willing participants

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\* available at <http://www.lancs.ac.uk/researchenterprise/dialang/about>

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qualified to take part in the study, but one participant, who failed to perform the task was later eliminated.

**Table 3.1 Participant Statistics**

Writers	Sex	Age	L2 prof	English prof	French / Catalan learners
SB	F	16;9	G940	532	
SJ	M	17;6	G802	720	F
SN	F	17;1	G730	457	C
CP	F	17;3	G807	531	F
CR	F	17;6	G652	561	F
CA	F	16;10	G649	690	F
GC	F	17;7	S730	590	C
GJ	F	17;1	S703	727	F
GR	M	16;9	S658	778	
GS	F	17;7	S730	730	F

Although the selected participants were from an intact class, they still represented a heterogeneous group in terms of their linguistic background. In Table 3.2, the L1 of the participants is indicated by the first initial of their pseudonyms; their L2 and English proficiency levels are also listed. While the group means for English proficiency for the Spanish and Catalan groups were similar (569.7 and 594, respectively), the mean proficiency of the German group was higher (706.3). At the time of the study, six of the students were learning French, and two of them were taking Catalan.

### 3.2 Writing Task

The writing task for this study was a comparative essay on the topic of growing up nowadays versus when the subjects' parents were younger. This topic was chosen on the basis of its familiarity to the students, who, in their English classes, had been studying "The American Dream" as a unit and were reading a book that dealt with the troubles of growing older. It was assumed that the ideational content necessary for composing the essay could be easily accessed so that more working memory would be available to deal with lexical problems.

### **3.3 Data Collection Procedure**

The data collection was carried out over three days. On the first day, the students were familiarized with thinking aloud and were given a mock composition to practice on their own. Following Manchón et al. (2005), the procedure was not modeled for the students so as to not influence their behavior.

On the second day, two interlocutors (myself, an English native speaker, along with a Spanish native speaker) conducted two recording sessions in which four students were recorded individually in separate rooms at the DSB at the same time as their regular English lessons. All instructions were given to the participants in English so as not to influence their language switching behavior. Once again, they were given a mock composition to practice thinking aloud for about ten minutes as the interlocutors selectively listened in to make sure that they performed the technique properly. Then the students were given the actual composition, for which they had 30 minutes to write approximately 200 words. These are roughly the conditions given to the students in Wang's study (2003) and are similar to the constraints faced by writers during English language examinations. The interlocutors sporadically listened in as the students were writing to make sure that they did not stop talking. If they were quiet for a long period of time (more than 8 seconds), they were reminded to keep talking or to speak up. Once the end of the time limit was reached, the subjects were instructed to finish their compositions, which were then collected so that they could be referred to when segmenting the transcribed data. They then filled out a post-task questionnaire that focused on their reaction to the task and their strategic behavior (see annex). Students were allowed to leave early or were given a couple of minutes to finish up their compositions when necessary. No dictionaries were provided to the writers, as the study aimed to find out how they used the resources available to them in their current interlanguage.

On the third day, the remaining three students were recorded according to the same procedure. This time an additional interlocutor, a native speaker of German, was present.

### **3.4 Data Preparation**

The first step in preparing the data for analysis was transcribing the recorded think-aloud data. The researcher, along with another fluent speaker of all the languages involved, who had a Master's degree in Applied Linguistics, transcribed word for word what the subjects said, along with phenomena such as long pauses, hesitations, yawning and coughing.



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The data was then segmented and matched to sentences in the students' actual written compositions. Once this was done, the data was prepared in three phases.

First, words in the compositions and words in the protocols were counted.

Composition time was measured from the instant the subjects started talking to the moment they finished.

Second, lexical searches during formulation were identified. The first step was to isolate formulation from planning and revision. Following Roca de Larios et al. (2001), formulation included "both the verbalization of written material and those other utterances that, because of their strict linear nature (lexical units, syntactic structures, etc.) could be considered clear candidates for becoming part of the text" (p. 511). This category also included changes that were made to the sentence currently being written.

Next, lexical searches during formulation were isolated. In order to be considered a lexical search, evidence of a lexical gap had to be present as well as problem-solving steps. Sometimes a problem was revealed through explicit problem indicators, such as, "How do you say...?" At other times the perception of a problem was related to implicit clues such as long pauses or repetition of a pre-text with a rising intonation. Those instances where the writer expresses a word in a non-target language and then effortlessly translated the word into English without any intervening steps were coded as binary searches and were not included in lexical searches. Lexical searches were also distinguished from restructuring problems, which involve the search for an alternate syntactic structure after a problem has been encountered with the initial structure. Orthographical problems were also excluded from the analysis.

### **Example of a Binary Search**

"...because they lived in another *societat*, society." (CR)<sup>†</sup>

### **Example of Restructuring**

"This is a a topic which...[cough] which... *¿cómo se dice con el que?* With ... No. *no para empezar* [cough]" ~~This is a topic which with that I~~(CP)

Once lexical searches had been identified, they were counted and categorized according to the languages involved.

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<sup>†</sup> See Appendix A for translations

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In the third phase, the lexical searches were broken down into the steps taken from the occurrence of the problem to the point where the subject either decided on a solution or gave up and moved on. In most cases the solutions appeared in the students' compositions, but sometimes these were tentative solutions and did not correspond to the final written text. Once the lexical searches had been broken down into their components, those problem-solving steps that involved the use of a non-target language were identified and put into the categories used by Murphy & Roca de Larios (2010), which will be elaborated on in the results.

In order to establish inter-rater reliability, two of the compositions were coded separately by a trained colleague and myself and were then compared.

### 4. Results

*RQ1: To what extent do multilingual writers think in previously learned languages while composing in English?*

The first research question was asked in order to obtain a general overview of the languages that were active in the minds of multilingual writers from the DSB. Following the procedure outlined in Manchón et al. (2000) the words in the protocol were totaled, and then the words in each language were counted. Then the number of words in the students' compositions was subtracted from both the total number of words in the protocol and the total number of English words. Finally a percentage was calculated in each language and can be seen in the following table, where numbers in bold represent the language with the highest percentage of words, and numbers in italics represent the language with the second highest percentage. Due to formal similarities between Spanish and Catalan, the language of some words could not be identified with one hundred percent certainty. Thus the category "Spanish or Catalan" was created. When the word "no" appeared adjacent to an English unit, it was counted as target language item.

In Table 4.1, we can see that all of the participants activated at least one language besides English in their composing process. All of the students, regardless of L1, used German while writing, even if it was to produce a single word, as in the case of CP. Eight of the 10 subjects also thought in Spanish, while the use of Catalan was confined to the Catalan L1 writers. CR used every language in her linguistic repertoire, including French, a language she had been studying for less than three years.

**Table 4.1 Percentage of Language Use**

Writers	English	German	Spanish	Catalan	Sp/Cat	French	Total
SB	<b>88.43</b>	0.60	<i>10.97</i>				100
SJ	<i>49.13</i>	0.61	<b>50.27</b>				100
SN	<i>35.73</i>	0.48	<b>63.78</b>				100
CP	<b>87.93</b>	0.07	4.10	<i>6.73</i>	1.17		100
CR	<i>14.26</i>	1.61	<i>4.57</i>	<b>79.10</b>	0.27	0.18	100
CA	<b>62.50</b>	0.23	<i>36.82</i>	0.45			100
GC	<b>76.02</b>	9.81	<i>14.18</i>				100
GJ	<b>97.30</b>	<i>2.70</i>					100
GR	<i>27.98</i>	<b>71.40</b>	0.62				100
GS	<b>77.06</b>	<i>22.94</i>					100

The results indicate that for six of the students, the language of the task was the dominant language, while others thought primarily in previously learned languages. No correlation was found between English proficiency and overall use of the target language during composition.

Eight of the 10 informants wrote their compositions using a combination of English and their L1 as the primary supporter language. However, for CA and GC it was Spanish that was dominant as a supporter language rather than their respective L1s. According to the linguistic background questionnaire, CA comes from a bilingual household and speaks only Spanish with one of her parents, and her patterns of use reveal that she mostly uses Spanish with friends at school. It is likely that these factors, combined with the fact that students at the *DSB* receive considerably more instruction in Spanish cause her to rely on Spanish in academic situations. Indeed, at the beginning of her composition, she starts to express herself in Catalan before switching to Spanish. After these first four words, she never goes back to formulating her thoughts in Catalan (see Excerpt 1).

### **Excerpt 1**

*“How is growing up nowadays different from when your parents were growing up?  
Primer, primer les diferencias de ayer... una introducción...” (CA, 1)<sup>‡</sup>*

<sup>‡</sup> See Appendix A for translations of excerpts

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GC, on the other hand, maintains a balance between German and Spanish as supporter languages throughout the composition process. Her linguistic background questionnaire reveals that, unlike the other German L1 speakers, she mainly uses Catalan at home with her family and only sometimes uses German to communicate with them. Meanwhile, with friends at school, she reports always using either German or Spanish and never Catalan. Once again, the predominance of Spanish and German over Catalan at the *DSB* could influence her to rely more on these languages for writing and restrict her Catalan use to other contexts. Similarly, CP also uses Catalan only at home, which may explain why Spanish and Catalan are used to an almost equal extent in her protocol.

These results expand on the findings of L2 writing studies, which show that students tend to activate their L1 to cope with the processing demands of writing in a non-native language. With the exception of Subjects GJ and GS, these multilingual students also activated supporter languages beyond the L1, and the dominant supporter language does not always correspond to the L1. Factors such as daily use of languages and the academic context can also have an influence on this choice, as is evidenced by the fact that all of the students thought in German at some point while composing.

*RQ2: To what extent do learners rely on previously learned languages when searching for lexical items in English?*

To answer the second research question, it was first necessary to find out how often these learners tackled lexical problems. This was done by counting the number of lexical searches for each participant. As is shown in Table 4.2, they produced a total of 111 lexical searches while writing their compositions ranging from a minimum of 1 to a maximum of 36 per individual. As some participants wrote much longer compositions than others, text length was taken into account in order to make the results more comparable. This was done by calculating the number of lexical searches per 100 words in the composition.

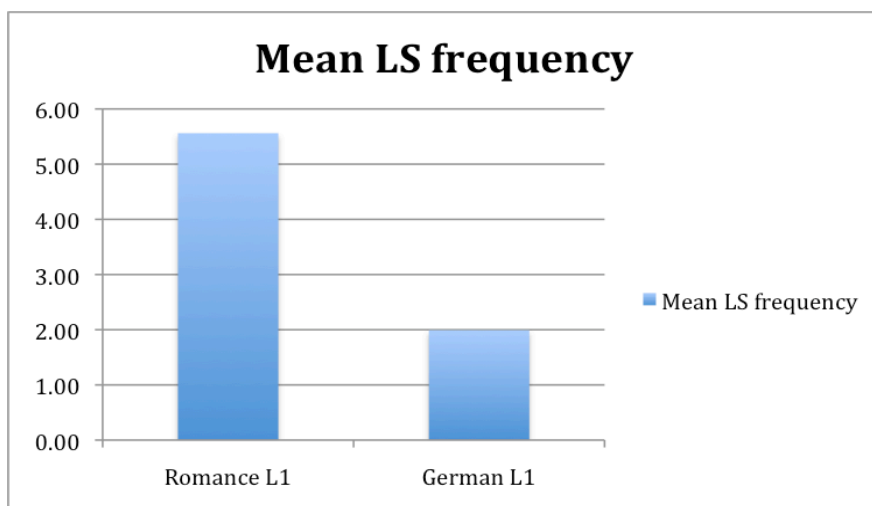
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**Table 4.2 Lexical Searches**

Writers	Lexical Searches	Percent
SB	13	7.07
SJ	8	3.59
SN	36	11.84
CP	15	5.26
CR	10	3.06
CA	7	2.55
GC	15	4.04
GJ	1	0.38
GR	3	2.17
GS	3	1.38
TOTAL	111	

The mean number of lexical searches per 100 words was 4.13 (sd = 3.14). There was a great deal of variation in the frequency with which learners tackled lexical problems, ranging from 0.38 to 11.84. On average, students with a Romance language as an L1 encountered more lexical problems than those with German as an L1, as is shown in Figure 4.1, which could be attributed to overall higher proficiency of the German group. A high Spearman rank correlation was found between English proficiency and the frequency of lexical searches, ( $r = -0.8788$ ,  $p < .001$ ).

**Figure 4.1 Mean Lexical Search Frequency by Language Group**



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In particular, GJ, GR and GS tackled very few lexical problems. Although the three belong in the high proficiency group, a closer look shows that there are different reasons for this. GJ and GS both planned extensively before writing their compositions, jotting down ideas about what they wanted to say in English, which seemed to reduce the number of lexical problems they encountered when formulating their texts. Furthermore, GJ thought almost entirely in English while producing her text, which she did with relative ease. On a couple of occasions she paused for a long time, however. These pauses usually occurred before the composition of new sentences. On one such occasion, she was prompted in English to keep talking. She responded in German that she did not know how to progress and then strategically switched to English.

### Excerpt 2

“Ok hmm ok *ich weiss nicht wie ich weitermachen soll* ok I better speak in English because I can think a little bit better,” (GJ).

This indicates that not all of her problem solving may have been verbalized, which is supported by her post-task questionnaire in which she indicated that she had difficulty talking while thinking aloud.

In contrast to the previous writers, GR, who had the highest score on the word recognition task, was beset with ideational problems and spent most of his time thinking about *what* to say in response to the prompt rather than *how* to say it, as is reflected in the following example.

### Excerpt 3

“*hmm mal sehen, was kann ich noch schreiben? ich ich ich wiederhole mich ich ich schreibe Kreisläufe ich nur, das nur, no es, no avanzo, ich bin ich bin hängengeblieben, mal sehen, hmm ich kann nichts mehr schreiben, hmm..*” (GR)

As most of his attentional resources were consumed by the demands of the task, he had very little left over for resolving lexical issues.

Once the total number of lexical searches had been calculated, this figure was compared to the number of lexical searches involving non-target languages. Table 4.3 shows that all of the participants referred to other languages besides English at some point during 104 of 111 lexical searches. Six of the 10 participants used a non-target language in all of

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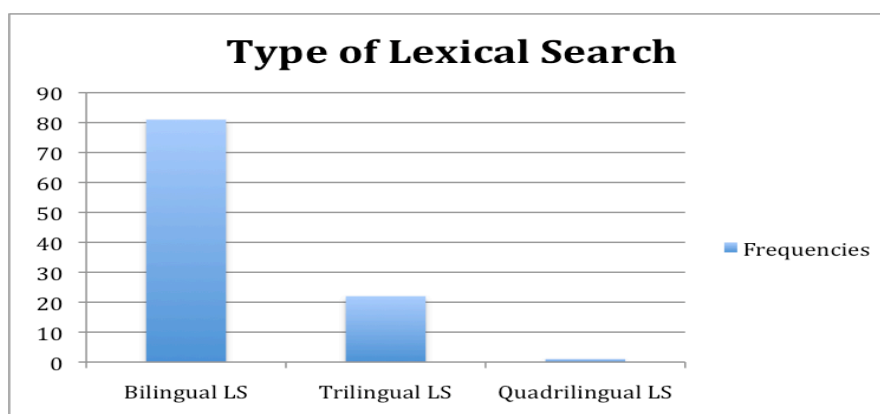
their lexical searches. Even GJ, who thought almost entirely in English, referred to her L1 in her only lexical search. These results support the findings of other researchers that even at advanced levels of proficiency, writers rely on non-native languages to solve lexical problems (e.g. Wang, 2003; Murphy & Roca de Larios, 2010).

**Table 4.3 Total Lexical Searches**

Writers	Lexical Search	NTL use
SB	13	11
SJ	8	6
SN	36	35
CP	15	15
CR	10	10
CA	7	7
GC	15	13
GJ	1	1
GR	3	3
GS	3	3
TOTAL	111	104

A closer look at the searches involving non-target languages revealed which languages were used. Of these 104 searches, 81 were bilingual searches, 22 were trilingual, and 1 was quadrilingual, as shown in Figure 4.2. These results are similar to Jessner's (2006, p. 88), who also found more bilingual searches than trilingual searches.

**Figure 4.2**



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Bilingual Searches

Overall, Spanish is clearly dominant in the bilingual searches (see Table 4.4). This can be partially accounted for by the fact that over half of them were produced by Spanish L1 speakers. The Spanish subjects preferred their L1 and only SB used German. This preference for the L1 was shared by 3 of the 4 German speakers and one Catalan speaker, who used their respective L1s exclusively. Of the 81 bilingual searches, 55-58 (67.9%) were carried out in the L1, but the number of lexical searches carried out in the language found to be dominant in the previous question is 67-70 (82.7%).

**Table 4.4 Languages Involved in Bilingual Searches**

Writers	G	S	C	S or C	Total
SB	2	7			9
SJ		5			5
SN		29			29
CP		7	3	3	13
CR			2		2
CA		5			5
GC	2	9			11
GJ	1				1
GR	3				3
GS	3				3
Total	11	62	5	3	81

The only subject who did not prefer her dominant supporter language (which also happened to be her L1) was CP, who relied mostly on Spanish rather than Catalan. Similar to CA and GC, her linguistic background questionnaire also reveals that she uses mostly Spanish at school and never Catalan, and it seems likely that her behavior is also influenced by presence of Spanish at the DSB.

Although GC's overall use of Spanish and German indicated a balance between the two languages, she tackled the majority of her lexical problems using Spanish.

Trilingual Searches / Quadrilingual Searches

Seven of the 10 participants performed lexical searches using up to two or three non-target languages. Those who did not were the three German subjects who tackled fewer



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lexical problems in their compositions than the other participants. One quadrilingual search occurred and is included in Table 4.5. The most frequent combination of languages used in searching for lexical items was German/Spanish, followed by German/Catalan and Spanish/Catalan. CR activated French along with Catalan.

As in the bilingual results, searches involving the L1 are common (19/23), but all 23 searches involve the dominant supporter language.

**Table 4.5 Languages involved in Multilingual Searches**

Writers	Trilingual					Quadrilingual
	G/S	G/C	S/C	C/F	Total	G/S/C
SB	2				2	
SJ	1				1	
SN	6				6	
CP			1		1	1
CR		4	3	1	8	
CA	2				2	
GC	2				2	
Total	13	4	4	1	22	1

When viewed together, these results indicate that multiple languages are activated in the multilingual mind while writing, and switching between non-target languages is a common strategy used by these multilingual students to solve lexical problems. Seven of the 10 participants drew on multiple non-target languages in their linguistic repertoires to assist them in lexical retrieval, and every single participant, regardless of L1, used German at some point in their searches.

*RQ3: What role is played by previously learned languages in lexical searches?*

In response to the third research question, the lexical searches were broken down into problem-solving steps, and those steps which involved the use of a non-target language were classified according to the categories in Murphy & Roca de Larios (2010) and the language used. As the main interest of this study is the use of previously learned languages beyond the

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L1 in English writing, those three subjects who only used German were excluded from this part of the analysis.

### *Generating Pre-texts*

Learners drew on previously learned languages in order to generate candidate texts in a non-target language, which then had to be translated into English, as in the following example, SA uses both Spanish and German to generate the target item, “although.” As in Murphy & Roca de Larios (2010), this process could be simple and almost automatic as seen in Excerpt 4 or it could involve a lot of struggle, as in Excerpt 5, where SJ, in an effort to come up with the English word, “epoch,” SJ repeats the word again and again, desperately switching back and forth between German and Spanish before finally settling on “time.”

#### **Excerpt 4**

“*Aunque sea muy innecesario, obwohl, aunque*, although it, it’s a bit unnecessary [sic]...” (SA)

#### **Excerpt 5**

“...that each *Epoche, Epoche, die Epoche, época* each, that each, that each, *mierda época*, each, I think that each, *puta*, that each *Epoche, época*, each *jolín*, that each *Epoche, época, mierda jolín el diccionario de los huevos*, that each... time, *voy a poner* time, has good and bad things.” (SJ)

### *Self-questioning, problem-indicating and problem-focusing*

Another common purpose for non-target language use was self-questioning, problem indicating and problem-focusing. In these cases, learners monitor their problem-solving activity as they become aware of their lexical problems and attempt to focus on them through questions or comments that led to strategic behavior. In the following example, SC uses both Spanish and German for self-questioning:

#### **Excerpt 6**

“You have the, you have the, you have ehm easier options, easier opti- no, *opciones* you have easier, *¿cómo se dice opciones en inglés?* You have easier ways to get in connection, connect, *wie heißt denn..?* *Para conectarse con alguien, para poder*

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connect you have easier ways to get in connection, ... no to connect we have easier ways to connect and talk to the person you want to meet..." (SC)

Some of the question frames included in this category did not always match the language of the terms they sought to elicit, as can be seen in Excerpts 7 and 8, in which CR uses a Catalan frame to elicit a German lexical unit:

**Excerpt 7**

"...sobretot aquí a Catalunya no es podia, no havia la llibertat d'expressió per que havia la dictadura, llavors ehm vor allem vor allem vor allem? **Com dir vor allem?**" (CR)

**Excerpt 8**

"...then there, *Einkommen*, **Com es diu Einkommen?**" (CR)

As in Murphy & Roca de Larios (2010), fillers that served a problem-focusing purpose were also included. These often preceded rereadings or other strategic behavior, as in excerpt 9.

**Excerpt 9**

"children are now growing up eh without, ehm, a strict, hmm *disciplina*? Oh **a ver**, children are grow are now growing up without ehm without a strict discipline?" (CP)

*Evaluation*

Evaluation goes hand in hand with problem-focusing. Learners not only talk to themselves when focusing on lexical problems, they also to evaluate the correctness or appropriateness of their solutions. This was also carried out in the L1 except for the Catalan speakers, who all used Spanish at some point. In 3 of the 4 cases, this is because they used the Spanish word "vale," which is widely used in Catalan due to extensive contact between the languages. In the following example, which is the only quadrilingual unit found in this study, CP uses German to generate a pretext, Catalan for problem-focusing and, on at least one of the two instances, Spanish for evaluation.

### Excerpt 10

...that *folgs* to that, that, eh, cause, **no, causes *otra vez no***, ehm that leads to.. *aviam, ja hi he posat leads?* Hmm.. which leads, *si. Bueno es igual*, that leads to ehm a different, a different, *com es diu? A veure*, and that leads to a different growing up, growing up too. (CP)

#### *Backtracking*

All of the remaining subjects backtracked through their texts either to generate more text or to evaluate their lexical choices. In Excerpt 11, CR uses both kinds of backtracking. She repeats the first part of her clause, repeats the stem “*sense*” (Cat: without) in order to stimulate the generation of lexical items in Catalan and French. Once she retrieves an item in English, she backtranslates it into Catalan.

### Excerpt 11

“...*sense*...ehm, *sense vigilar, sense, sense, sense que la policia te*, with the, with the *policia, sense que la policia* ehm... *et detengui.. arête, arête*, ehm eh the police.. take, *t'emporti*, ehm *sense que la policia t'emporti.*” (CR)

In Excerpt 12, SA backtranslates a word into Spanish and then into German before backtracking in English in order to move on.

### Excerpt 12

“I will show some arguments hmm in favor, *a favor?* In faaavor, *dafür*...” (SA)

#### *Metacomments*

Three writers, (SB, SN and CR), made metacomments on their problem-solving approach. These comments revealed an awareness of their strategic behavior, as in the following example, where SN correctly perceives that the word she writes down is a false cognate.

### Excerpt 13

I think to live in the *actualidad?* In the actu- actual?, actually, *¿cómo se dice?*  
Mmmm ay tío no sé cómo decirlo, me da vergüenza, I think to live in the, in the

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actual, in the actuality, so **bueno una esp, una españolada que le estoy metiendo**,...  
(SN)

The conscious strategic behavior of the participant can also be seen in the following example, where CR decides to foreignize a word in order to compensate for not knowing how to say “dictatorship” in English.

**Excerpt 14**

They lived in, *dictadura en anglès*? Pff, **Bueno me lo saco de la manga y pim pam**, they, (...) they lived in a dicture [sic].” [Writes: They lived in a dictature.] (CR)

*Metalinguistic Appeal*

Metalinguistic appeal is another strategy where learners use metalinguistic terms to focus on language as an object. These can be standard terms such as

**Excerpt 15**

“*sinónimo*, ehm allow, ehm... *zulassen*?” (SB)

or metalinguistic concepts explained in the subject’s own terminology, as in

**Excerpt 16**

“**otra palabra para conectar**” (SC, paragraph 27).

This strategy occurred very few times and could be found only in the protocols of four participants: SB, SJ, SN and GC.

*Other uses of previously learned languages*

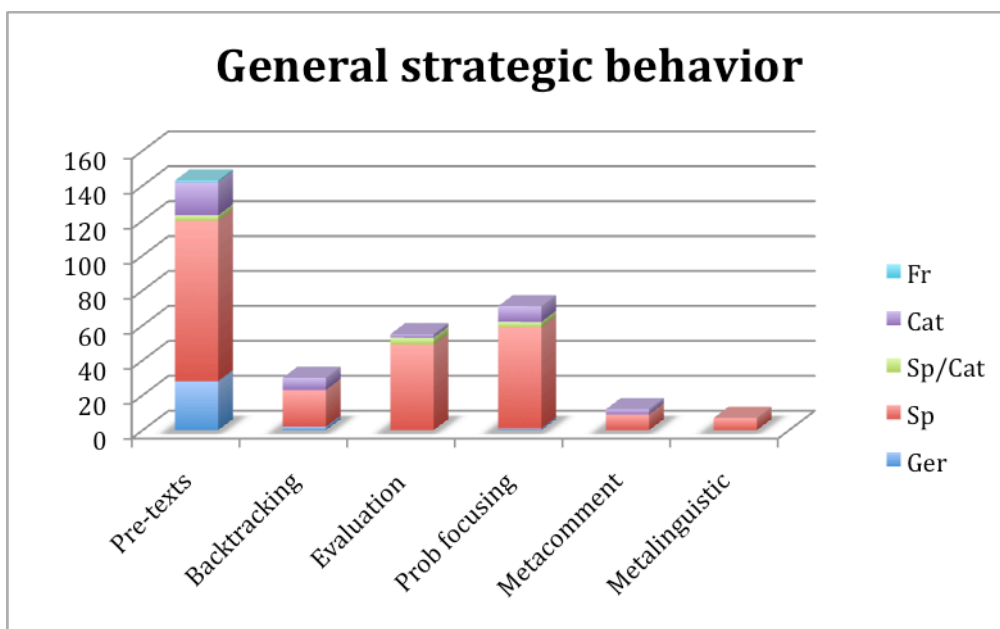
Some other uses of previously learned languages were found but were excluded from the analysis as they did not count as problem-solving steps. These were emotion words, fillers, and comments on the task.

The data for the overall strategies is presented in Figure 4.3, where the overall frequencies of each purpose are displayed and broken down by the language in which they appeared. The top three purposes for which the writers used previously learned languages were generating lexical units, evaluation and problem-focusing, while backtracking,

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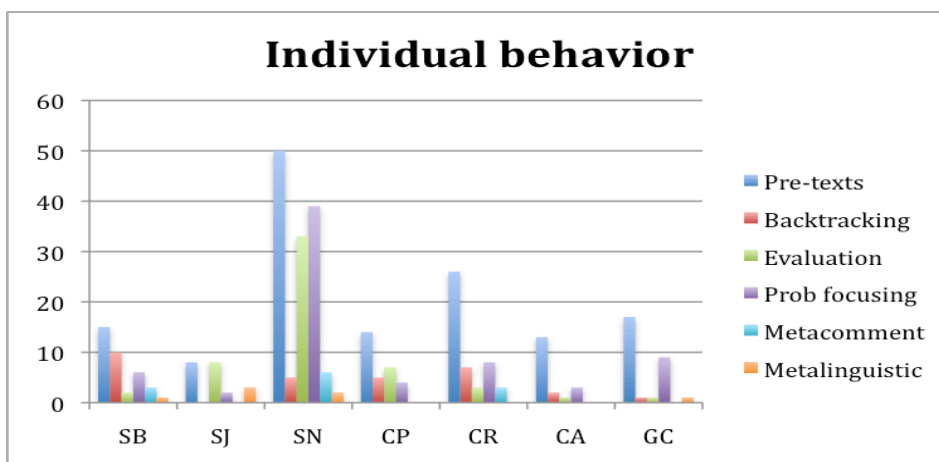
metacommentary and metalinguistic appeal were found to a lesser extent, which is similar to the result obtained by Murphy and Roca de Larios (2010). These trends were also largely true for individual behavior, as shown in Figure 4.4. These learners consistently used non-target languages to generate pretexts above all other functions.

**Figure 4.3 Strategic Behavior of Group: Frequencies with Languages Involved**



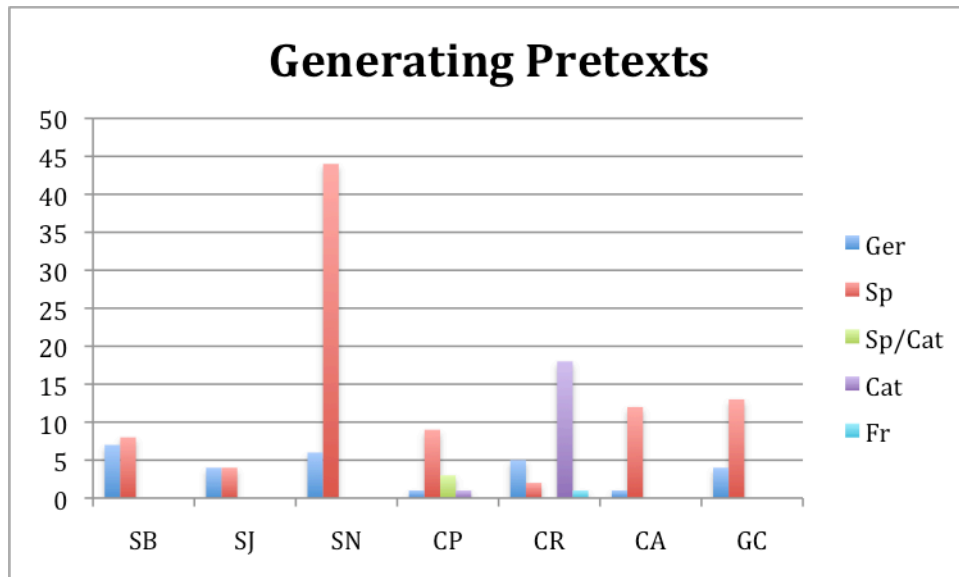
Clearly, Spanish was the dominant language in all the categories, and it is the only language used for all six purposes, which is related to the use of Spanish as a primary supporter language by the majority of students in this sample. Catalan was the second most frequently and widely used language, followed by German, while French was only used once.

**Figure 4.4 Individual Strategic Behavior: Frequencies**



The purpose for which the most languages were used was for generating pre-texts. The use of German was most often found in this category. While Spanish turned out to be the most dominant language for generating pretext for all subjects besides CR, every single writer in this sample used German for this purpose, as is shown in Figure 4.5.

**Figure 4.5 Generating Pretexts: Frequencies for German and Spanish for Individuals**



A qualitative analysis of the subjects' switching behavior in generating pretexts revealed several episodes where writers seem to be at least subconsciously aware of the distance between languages at the word level. CR generated lexical units in the widest variety of languages and activated the cognates, *arête* (F: arrest, see Excerpt 11), *Einkommen* (G: Income, see Excerpt 8) and *Haushalt* (G: household), as seen in the following example.

#### **Excerpt 17**

“women had to stay at home and, ehm.. ehm *fer coses a casa, Haushalt, ehm Haushalt, ehm ehm Haushalt, ehm com es diu?* At home and do and and clean *la casa o cuinar* or attend, *attender, prestar atenció, o ajudar, o hmm hmm hmm attend...* *bueno jo diria que no es pot dir però bueno* or attend the kids.” (CR)

However, in these lexical searches, she never comes up with the corresponding English word. It is curious, though, that she switched to a non-dominant supporter language to focus on these words in particular when she has a Catalan word available. Perhaps the fact

that she did not use the English word in the end implies a reluctance to rely on cognates, as she expresses at the end of this search after having backtranslated “attend” into Catalan and correctly intuiting that it is a false cognate before writing it down anyway, which is similar to the behavior exhibited by SN in Excerpt 13. These writers are experienced language learners and are well aware of the dangers of overreliance on cognates. These results can be interpreted as evidence of the crosslinguistic awareness described by Jessner (2006), which is an essential component of the M-factor and multilingual proficiency.

## 5. Discussion and Conclusion

The aim of this study was to show what kinds of mental processes occur in multilingual writing within an immersion school context, where students develop a high level of proficiency in multiple languages. The results of this study indicate that multilingual writing is a multilingual event, as nearly all the writers in this study drew on previously learned languages beyond the L1 when writing their texts and solving lexical problems. Whereas some previous studies (Wang & Wen, 2002; Woodall, 2002) found an inverse relationship between overall non-target language use and target language proficiency, this study found no relationship. Murphy and Roca de Larios (2010) showed that, even at advanced stages, learners draw on their L1 for a variety of purposes when tackling lexical problems. This was also true for these multilingual writers, who all used non-target languages for the majority of their lexical searches. The most common purpose for activating non-target languages was for generating pre-texts, which was often done by generating equivalent items in more than one language before translating them into English, which can be seen as a multilingual variation on the behavior exhibited by the students in Wang (2003).

The language choice of the students was influenced by a variety of factors in different categories, as described by Hall & Ecke (2003). The Spanish and German students preferred their L1 except for GC, who seemed to have become more dominant in the community languages of Catalonia. The behavior of the Catalan L1 writers in this study showed that despite receiving some instruction in Catalan, the dominance of Spanish as a community language at school could lead to restricted use of the L1 in academic writing. The fact that all the students used German highlights the influence of their immersion education.

As in Manchón et al. (2007), the strategic use of previously learned languages during multilingual writing can be viewed as a form of multicompetence. In line with Jessner (2006), the learners’ use of (and reluctance to use) cognates as well as metacomments on the effectiveness of their crosslinguistic strategies show evidence of enhanced linguistic



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awareness, which is postulated in the DMM (Herdina & Jessner, 2002) to develop in experienced multilingual learners and may lead to advantages in additional language acquisition.

Naturally, this study had some limitations. The small number of participants in each L1 group limited the statistical analysis that could be done but give some clues to the complexity and interaction of the different languages involved in multilingual writing. Some of the students' comments on the task and post-task questionnaires indicated that they were uncomfortable at first with the think aloud process, but as the process went on they seemed to become more at ease. In the future, more practice time should be given. Finally, like all multilingual studies, this one takes place in a unique context with a specific language combination, and similar research should be done in other linguistic contexts to develop a complete picture of multilingual writing behavior.

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References

- Armengol, L., & Cots, J. M. (2009). Attention processes observed in think-aloud protocols: Two multilingual informants writing in two languages. *Language Awareness, 18*(3), 259.
- Armengol-Castells, L. (2001). Text-generating strategies of three multilingual writers: A protocol-based study. *Language Awareness, 10*(2), 91.
- Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology, 24*(4), 560-567.
- Cenoz, J. (2000). Research on multilingual acquisition. Cenoz, J. & Jessner, U. (eds.). *English in Europe: the acquisition of a third language*. Clevedon: Multilingual Matters. 39-53.
- Cenoz, J. (2001). The effect of language distance, L2 status and age on cross-linguistic influence in third language acquisition. In Cenoz, J.; Hufeisen, B.; & Jessner U. (eds.), *Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives*. Clevedon: Multilingual Matters, pp.8-20.
- Cenoz, J. (2003a). The additive effect of bilingualism on third language acquisition: A review. *International Journal of Bilingualism, 7*(1), 71-88.
- Cenoz, J. (2003b). The role of typology in the organization of the multilingual lexicon. In *The multilingual lexicon*, Cenoz J., Hufeisen B. and Jessner U. (eds.), 103-115 Springer Netherlands.
- Cenoz, J., Hufeisen, B., & Jessner, U. (2003). *Why investigate the multilingual lexicon?* In *The multilingual lexicon*, Cenoz J., Hufeisen B. and Jessner U. (eds.), 1-9 Springer Netherlands.

The Role of Previously Learned Languages in the Thought Processes of Multilingual Writers  
at the *Deutsche Schule Barcelona*

Cook, Vivian. (2010). Multi-competence. Uncut version of a shorter encyclopaedia entry  
2010. At <http://homepage.ntlworld.com/vivian.c/Writings/Papers/MCentry.htm>.

Accessed 12/5/2011

De Angelis, G. (2007). *Third or additional language acquisition*. Clevedon: Multilingual  
Matters.

De Larios, J. R., Marín, J., & Murphy, L. (2001). A temporal analysis of formulation  
processes in L1 and L2 writing. *Language Learning*, 51(3), 497-538.

Fitzgerald, J. (2006). Multilingual writing in pre-school through 12th grade: The last 15  
years. In *Handbook of writing research*, C.A. MacArthur, S. Graham, & J. Fitzgerald  
(eds.), 337-54 New York: The Guilford Press.

Flynn, S., Foley, C., & Vinnitskaya, I. (2004). - The cumulative-enhancement model for  
language acquisition: Comparing adults' and children's patterns of development in first,  
second and third language acquisition of relative clauses. *International Journal of  
Multilingualism* 1, 1, 3-16.

Gabrys-Baker D. (2006). Language activation in the thinking processes of a multilingual  
language user. *International Journal of Multilingualism*, 3:2, 105-124.

Grosjean, F. (1989). Neurolinguists, beware! the bilingual is not two monolinguals in one  
person. *Brain and Language*, 36(1), 3-15.

Hall, J. C., & Ecke, P. (2003). In Cenoz J., Hufeisen B. and Jessner U.(Eds.), Parasitism as a  
default mechanism in L3 vocabulary acquisition. In *The Multilingual Lexicon*, Cenoz J.,  
Hufeisen B. and Jessner U. (eds.), 71-86 Springer Netherlands.

The Role of Previously Learned Languages in the Thought Processes of Multilingual Writers  
at the *Deutsche Schule Barcelona*

- Hammarberg, B. (2001). Roles of L1 and L2 in L3 production and acquisition. In J. Cenoz, B. Hufeisen & U. Jessner (eds.). *Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives*. Clevedon, UK: Multilingual Matters, 21-41.
- Herdina, P., & Jessner, U. (2002). *A dynamic model of multilingualism: Perspectives of change in psycholinguistics* Clevedon: Multilingual Matters.
- Hufeisen, B. (2003). L1, L2, L3, L4, Lx–alle gleich? linguistische, lernerinterne und lernerexterne faktoren in modellen zum multiplen spracherwerb. *Zeitschrift Für Interkulturellen Fremdsprachenunterricht*, 8(2/3), 1.
- Jessner, U. (2006). *Linguistic awareness in multilinguals :English as a third language*. Edinburgh: Edinburgh University Press.
- Jessner, U. (2008a). A DST model of multilingualism and the role of metalinguistic awareness. *The Modern Language Journal*, 92(2), 270-283.
- Jessner, U. (2008b). Teaching third languages: Findings, trends and challenges. *Language Teaching*, 41(01), 15.
- Juzwik, M. M., Curcic, S., Wolbers, K., Moxley, K. D., Dimling, L. M., & Shankland, R. K. (2006). Writing into the 21st century. *Written Communication*, 23(4), 451-476.
- Manchón, R. M., Murphy, L., & Roca de Larios, J. (2005). Using concurrent protocols to explore L2 writing processes: Methodological issues in the collection and analysis of data. In P. K. Matsuda & T. Silva (Eds.), *Second language writing research: Perspectives on the process of knowledge construction*, 191–205. Mahwah, NJ: Erlbaum.

The Role of Previously Learned Languages in the Thought Processes of Multilingual Writers  
at the *Deutsche Schule Barcelona*

- Manchón Ruiz, R. M., Murphy, L., & Roca de Larios, J. (2007). Lexical retrieval processes and strategies in second language writing: A synthesis of empirical research. *IJES, International Journal of English Studies*, 7(2), 149-174.
- Manchón, R. M., Roca de Larios, J., & Murphy, L. (2000). An approximation to the study of backtracking in L2 writing. *Learning and Instruction*, 10(1), 13-35.
- Murphy, L., & Roca de Larios, J. (2010). Searching for words: One strategic use of the mother tongue by advanced Spanish EFL writers. *Journal of Second Language Writing*, 19(2), 61-81.
- Odlin, T. & Jarvis, S. (2004). Same Source, Different Outcomes: A Study of Swedish Influence on the Acquisition of English in Finland. *International Journal of Multilingualism*. 1(2), 123-140.
- Pavlenko, A. & Jarvis, S. (2002). Bidirectional transfer. *Applied linguistics* 21(2): 190- 241.
- Roca de Larios, J. Manchón, R.M. & Murphy L. (1996) Strategic knowledge in L1 and L2 composing: A cross-sectional study. *Proceedings of the European Writing Conference, SIG Writing*: Barcelona Autonomous University.
- Roca de Larios, J. Manchón, R.M. & Murphy L. (2001). A temporal analysis of formulation processes in L1 and L2 writing. *Language Learning*, 51, 497- 538.
- Wang, L. (2003). Switching to first language among writers with differing second-language proficiency. *Journal of Second Language Writing*, 12(4), 347-375.
- Wang, W., & Wen, Q. (2002). L1 use in the L2 composing process: An exploratory study of 16 Chinese EFL writers. *Journal of Second Language Writing*, 11(3), 225-246.

The Role of Previously Learned Languages in the Thought Processes of Multilingual Writers  
at the *Deutsche Schule Barcelona*

Williams, S., & Hammarberg, B. (1998). Language switches in L3 production: Implications for a polyglot speaking model. *Applied Linguistics*, 19(3), 295-333.

Woodall, B. R. (2002). Language-switching: Using the first language while writing in a second language. *Journal of Second Language Writing*, 11(1), 7-28.

The European Commission's White Paper on Education and Training, (1995). Retrieved 7/5/2011. [http://europa.eu/documents/comm/white\\_papers/pdf/com95\\_590\\_en.pdf](http://europa.eu/documents/comm/white_papers/pdf/com95_590_en.pdf)

## Appendix A: Translations

### Example of a Binary Search

“...because they lived in another C *societat*, society.”

”...because they lived in another society, society.”

### Example of Restructuring

“This is a a topic which...[cough] which... S *¿cómo se dice con el que?* With ... No. S *no para empezar* [cough]” ~~This is a topic which with that I~~

“This is a a topic which...[cough] which...¿how do you say with which? With... No, not to begin [cough]” ~~This is a topic which with that I~~

### Excerpt 1

“C *Primer, primer les diferencias S de ayer... una introducción...* “

“First, first, the differences of yesterday... an introduction...”

### Excerpt 2

“Ok hmm ok G *ich weiss nicht wie ich weitermachen soll* ok I better speak in English because I can think a little bit better,”

“Ok hmm ok I don’t know how to go on ok I better speak in English because I can think a little bit better,”

### Excerpt 3

“G *hmm mal sehen, was kann ich noch schreiben? ich ich ich wiederhole mich ich ich schreibe Kreisläufe ich nur, das nur, no es, no avanzo, ich bin ich bin hängengeblieben, mal sehen, hmm ich kann nichts mehr schreiben, hmm..*”

“hmm, let’s see, what can I write? I’m I’m I’m repeating myself, I’m I’m I’m writing in circles I just, this isn’t, I’m not advancing, I’m I’m stuck, let’s see, hmm I can’t write any more,”

### Excerpt 4

“S *Aunque sea muy innecesario, G obwohl, aunque*, although it, it’s a bit unnecessary [sic]...”

**Although it’s very unnecessary, although**, although it, it’s a bit unnecessary [sic.]

**Excerpt 5**

“...that each G *Epoche*, *Epoche*, *die Epoche*, *S época* each, that each, that each, S *mierda época*, each, I think that each, *puta*, that each G *Epoche*, *S época*, each S *jolín*, that each G *Epoche*, *S época*, *mierda jolín el diccionario de los huevos*, that each... time, *voy a poner time*, has good and bad things.”

“... that each epoch, epoch, the epoch, epoch, each, that each, that each, shit, epoch, I think that each, shit,, that each epoch, epoch, each, shit, that each epoch, epoch, shit, gosh, the freaking dictionary, that each... time, I’m going to write time, has good and bad things.”

**Excerpt 6**

“You have the, you have the, you have ehm easier options, easier opti- no, S *opciones* you have easier, S *¿cómo se dice opciones en inglés?* You have easier ways to get in connection, connect, G *wie heißt denn..?* S *Para conectarse con alguien, para poder* connect you have easier ways to get in connection, ... no to connect we have easier ways to connect and talk to the person you want to meet...”

“you have to, you have to, you have, ehm easier options, easier opti- no, options you have easier, how do you say options in English? You have easier ways to get in connection, connect, how do you say...? To get in touch with someone to be able to connect you have easier ways to get in connection, ... no to connect we have easier ways to connect and talk to the person you want to meet...”

**Excerpt 7**

“C *...sobretot aquí a Catalunya no es podia, no havia la llibertat d’expressió per que havia la dictadura, llavors ehm G vor allem vor allem vor allem?* C **Com dir G vor allem?**”

“... above all here in Catalonia you could not, there was not freedom of expression because there was the dictatorship, then,ehm, above all, above all? How to say above all?”

**Excerpt 8**

“...then there, G *Einkommen*, C **Com es diu G Einkommen?**”

“... then there, income, how do you say income?”



**Excerpt 9**

“children are now growing up eh without, ehm, a strict, hmm SC *disciplina*? Oh S *a ver*, children are grow are now growing up without ehm without a strict discipline [pronounced discipleen]?”

“children are now growing up without(, ehm, a strict, hmm discipline? Oh let’s see, children are grow are now growing up without ehm without a strict discipline.?”

**Excerpt 10**

“...that G [calque] *folgs* to that, that, eh, cause, S no, *causes otra vez no*, ehm that leads to.. C *aviam, ja hi he posat* leads? Hmm.. which leads, SC *si*. SC *Bueno es igual*, that leads to ehm a different, a different, C *com es diu? A veure*, and that leads to a different growing up, growing up too.”

“that leads to that, that, eh, cause, no, causes again no, ehm that leads to..., lets see, have I already written leads? Hmm... which lead, yes. Well, it doesn’t matter, that leads to ehm a different, a different, how do you say? Let’s see, and that leads to a different growing up, growing up too.”

**Excerpt 11**

“...C *sense...ehm, sense vigilar, sense, sense, sense que la policia te*, with the, with the *policia, sense que la policia ehm... et detengui.. F arête, arête*, ehm eh the police.. take, C *t’emporti, ehm sense que la policia t’emporti.*”

“... without ... ehm, without watching out, without, without, without the police you, with the, with the police, without the police ... ehm detain you... arrest, arrest, ehm eh the police take, taking you away, ehm without the police taking you away.”

**Excerpt 12**

“I will show some arguments hmm in favor, S *a favor?* In faavor, G *dafür...*”

“I will show some arguments hmm in favor? In faavor, in favor...”

**Excerpt 13**

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I think to live in the *S actualidad?* In the actu- actual?, actually, *S ¿cómo se dice?*  
Mmmm ay *S tío no sé cómo decirlo, me da vergüenza*, I think to live in the, in the actual, in the actuality, so *S bueno una esp, una españolada que le estoy metiendo,...*

“ I think I live in the present? At the actu- actual?, actually, ¿how do you say that?  
Mmmm, oh, man, I don't know how to say it, I'm ashamed, I think to live in the actual, actually, so, well, a spa, what I'm writing sounds very Spanish”.

**Excerpt 14**

They lived in, *C dictadura en anglès?* Pff, *S Bueno me lo saco de la manga y pim pam*, they, (...) they lived in a dicture [sic].” [Writes: They lived in a dictatorship.]  
“They lived in, dictatorship in English? Pff, well, I'll just make it up and pim pam, they lived in a dicture [sic]”

**Excerpt 15**

“ *S sinónimo*, ehm allow, ehm... *G zulassen?*”  
“synonym, ehm, allow, ehm... admit?”

**Excerpt 16**

“*otra palabra para conectar*”  
“another word for to connect”

**Excerpt 17**

“women had to stay at home and, ehm.. ehm *C fer coses a casa*, *G Haushalt*, ehm *Haushalt*, ehm ehm *Haushalt*, ehm *C com es diu?* At home and do and and clean *C la casa o cuinar or attend*, *F attender*, *S prestar C atenció*, o *S ajudar*, o hmm hmm hmm attend... *S bueno C jo diria que no es pot dir però S bueno* or attend the kids.”  
“women had to stay at home and, ehm... ehm to do things at home, household, ehm ehm household, ehm how do you say? At home and do and clean the house or cook or attend, attend, pay attention, or help, or hmm hmm hmm attend, ... well, I would say that you cannot say that, but oh well, or attend the kids”

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**Appendix B: Background Questionnaire**

1. Name: \_\_\_\_\_
2. Date of Birth: \_\_\_\_\_
3. Sex:  Male  Female
4. Course:  11th  12th
5. Length of residency in Spain (circle one)
  - a. I was born in Spain
  - b. More than 10 years
  - c. 5 to 10 years
  - d. Less than 5 years
6. Which **course** were you in when you started studying at the DSB? \_\_\_\_\_
7. Did you learn German as a native language (Deutsch als Muttersprache) or as a foreign language (Deutsch als Fremdsprache)? Check one: \_\_\_\_\_ DaM \_\_\_\_\_ DaF
8. What **mark** did you receive in each of the following language subjects last semester?
 

German _____	Catalan _____
Spanish _____	French _____
English _____	Other (specify) _____
9. Are you studying any languages outside of school?

Language	Where? (academy, private tutor, etc.)	How many hours per week?	Level (beginner, intermediate, advanced...)

10. What language(s) do you speak with the following people? Circle **A-(always)**, **O-(often)**, **S-(sometimes)**, or **N-(never)**.

	German	Spanish	Catalan	Other (specify)
Mother	A O S N	A O S N	A O S N	A O S N
Father	A O S N	A O S N	A O S N	A O S N
Brothers and Sisters	A O S N	A O S N	A O S N	A O S N
Close friends at school	A O S N	A O S N	A O S N	A O S N
Close friends outside school	A O S N	A O S N	A O S N	A O S N
At extra-scholar activities	A O S N	A O S N	A O S N	A O S N

11. In which language do you feel **most comfortable** speaking? Rank them if more than one.
 

German	Spanish	Catalan	Other _____
--------	---------	---------	-------------
12. Which language(s) do you use for **problem solving** when working on **group projects**? Rank them if more than one.
 

German	Spanish	Catalan	English	Other _____
--------	---------	---------	---------	-------------
13. Which language(s) do you use for **problem solving** when working on group projects **in English class**? Rank them if more than one.
 

German	Spanish	Catalan	English	Other _____
--------	---------	---------	---------	-------------

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14. When you have children, in which language are you likely to speak to them?

German Spanish Catalan Other (specify) \_\_\_\_\_

15. Please rate your proficiency in the following skills for each language (**1=very low, 2=low, 3=average, 4=fluent, 5=native**). Please indicate if you have any official certificates (e.g. Cambridge First Certificate, Mittelstufeprüfung, etc...)

		1	2	3	4	5	Certificate?
<u>German</u>	Listening	1	2	3	4	5	
	Speaking	1	2	3	4	5	
	Reading	1	2	3	4	5	
	Writing	1	2	3	4	5	
<u>Spanish</u>	Listening	1	2	3	4	5	
	Speaking	1	2	3	4	5	
	Reading	1	2	3	4	5	
	Writing	1	2	3	4	5	
<u>Catalan</u>	Listening	1	2	3	4	5	
	Speaking	1	2	3	4	5	
	Reading	1	2	3	4	5	
	Writing	1	2	3	4	5	
<u>English</u>	Listening	1	2	3	4	5	Certificate?
	Speaking	1	2	3	4	5	
	Reading	1	2	3	4	5	
	Writing	1	2	3	4	5	

16. Please rate your level of proficiency in the following aspects of each language (1=very basic, 5=mastery).

<u>English</u>	Grammar	1	2	3	4	5
	Vocabulary	1	2	3	4	5
<u>German</u>	Grammar	1	2	3	4	5
	Vocabulary	1	2	3	4	5
<u>Spanish</u>	Grammar	1	2	3	4	5
	Vocabulary	1	2	3	4	5
<u>Catalan</u>	Grammar	1	2	3	4	5
	Vocabulary	1	2	3	4	5

17. Do you enjoy writing...

letters to friends?	Yes / No	In which language(s)?
e-mails?	Yes / No	In which language(s)?
personal diary/journal?	Yes / No	In which language(s)?
internet blog?	Yes / No	In which language(s)?
essays for school?	Yes / No	In which language(s)?
opinion articles?	Yes / No	In which language(s)?
fictional stories?	Yes / No	In which language(s)?

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**Appendix C: Post-Task Questionnaire**

Name: \_\_\_\_\_

A. Please rate the **difficulty** of the composition you just wrote.

(very easy) 1      2      3      4      5      6      7      8      9 (very difficult)

B. Please rate the **amount of time** you were given to write your composition

(not enough) 1      2      3      4      5      6      7      8      9 (too much)

C. Please rate your **stress level** while writing your composition.

(not at all) 1      2      3      4      5      6      7      8      9 (very stressed)

D. Did you have any problems when you were writing? Give some examples.

E. Did you use other languages besides English to help you solve these problems?

F. When you were writing, did you...

i. think about what you wanted to say in another language and then translate it into English?

Yes    No    Language used:

ii. think about the word you wanted to say and repeat it until the word occurred to you in English?

Yes    No    Language used:

iii. think of the word that you wanted to say in another language and then look for a different way to say it in English?

Yes    No    Language used:

iv. search for similar words in another language until you found a word you could translate into English?

Yes    No    Language used:

v. simplify what you meant to say so you could express it in English?

Yes    No    Language used:

vi. evaluate a word you were unsure of by translating it into another language before writing it down?

vii. read back over text you had already written in order to continue?

Yes    No    Language used:

Can you give specific examples of these techniques from the text you just wrote?

### **Appendix D: Interlocutor Instructions**

#### Things to remember during Think-Aloud Protocol:

1. The most important thing is the **verbal** information that the students give us. Do a good job training them, and make sure they are comfortable thinking aloud before giving them the real composition. Let them practice for 10 minutes minimum!
2. Minimize your own interaction with the student while they are composing. If they are silent for 8 seconds or if they speak so quietly that it is inaudible, prompt them to keep speaking or to speak louder. Other than that, try not to interfere.

#### What if...

- A. *The students ask for help?* Tell them to simply do the best they can and remind them that the most important thing is what they are thinking, not what they are writing.
- B. *The student finishes quickly?* Ask them if they want to write a bit more, and if not, move on to the post-task questionnaire and get lots of details.
- C. *The student doesn't finish within the time limit?* Tell them when time is up and ask them to try and finish quickly. Don't be too strict.
- D. ....? Just go with the flow. Keep them comfortable and keep them talking.

#### Instructions

"I'd like you to write a composition on a topic that I am going to give you now. While you write your composition, I would like you to say aloud anything and everything that goes through your mind. You have to do everything that you would normally do when writing a composition, the only difference being that today you are going to do it talking aloud. You may use any language that you normally use when writing. First I'm going to let you practice before doing the real task. You will have a maximum of 30 minutes to complete the task."

#### Composition to Practice Thinking Aloud

Please write on the following topic: **What are the advantages and disadvantages of school uniforms?**

#### Topic

Please write approximately 200 words on the following topic: **How is growing up nowadays different from when your parents were growing up?**

## Appendix E: Consent Forms

### Master Lingüística Aplicada i Adquisició de Llengües en Contextos Multilingües

Dpt. Filologia Anglesa i Alemanya, Universitat de Barcelona  
<http://www.ub.edu/masteroficial/laalcm/index.php?lang=en>

#### Información sobre el proyecto de Tesis de Master

Estimado/a Señor/a,

Me llamo Brandon Tullock y estoy cursando el Master en Lingüística Aplicada y Adquisición de Lenguas en Contextos Multilingües en la Universidad de Barcelona. Para el proyecto de investigación he escogido centrarme en los procesos de escritura de los hablantes multilingües (castellano, catalán, inglés, alemán). Me he puesto en contacto con el Colegio Alemán de Barcelona para realizar la recogida de datos con algunos de sus alumnos y me van a permitir realizarla mediante unos cuestionarios y unas grabaciones de audio (no de video) que se realizarán mientras los alumnos seleccionados escriben dos textos en inglés.

Le estaría muy agradecido si permitiera participar a su hijo/a en este estudio. Quiero destacar que la identidad de los participantes será anónima y que los datos sólo serán utilizados con fines de investigación y no tendrán ningún tipo de explotación pública y que en cualquier caso, si desean retirarse del proyecto, podrán hacerlo sin problema. Si desea una copia de los resultados de los cuestionarios o de la grabación se la proporcionaré con mucho gusto. Si desea mayor información sobre el estudio o tiene alguna duda, estoy a su disposición ([brtulot7@alumnes.ub.edu](mailto:brtulot7@alumnes.ub.edu), 618682639), al igual que mi supervisora la Dra. Fdez-Villanueva ([fernandezvillanueva@ub.edu](mailto:fernandezvillanueva@ub.edu)).

Atentamente,  
Brandon D. Tullock

#### Consentimiento Informado

He leído la información sobre el proyecto de Brandon Tullock y doy mi consentimiento para que mi hijo/a .....  
..... participe en el proyecto descrito y que sea grabado dado que los datos solo se utilizarán para su investigación y el consentimiento puede ser retirado en cualquier momento sin consecuencias adversas.

Firmado \_\_\_\_\_ Fecha \_\_\_\_\_  
(firma de los padres o los tutores)

Firmado \_\_\_\_\_ Fecha \_\_\_\_\_  
(firma del participante)

Firmado \_\_\_\_\_ Fecha \_\_\_\_\_  
(firma del investigador)

**Master Lingüística Aplicada i Adquisició de Llengües en Contextos Multilingües**

Dpt. Filologia anglesa i Alemanya, Universitat de Barcelona

<http://www.ub.edu/masteroficial/laalcm/index.php?lang=en>

**Informationsblatt**

Mein Name ist Brandon Tullock und ich bin Student des Masterstudiums LAALCM an der Universität Barcelona. Mein Forschungsprojekt fokussiert auf Schreibprozesse mehrsprachiger Sprecher (Spanisch, Katalanisch, English, Deutsch). Ich habe mich an die Deutsche Schule Barcelona gewendet, um die Datenerhebung durch Fragebögen und Audioaufnahmen (keine Videoaufnahmen) von einigen ihrer Schüler durchzuführen, während sie zwei Texte auf Englisch verfassen.

Ich wäre Ihnen sehr dankbar, wenn Sie genehmigen, dass Ihr Sohn/ Ihre Tochter an dieser Studie teilnimmt.

Ich möchte betonen, dass alle Teilnehmer anonym bleiben werden, und dass die Daten vertraulich behandelt und nur für diesen wissenschaftlichen Zweck benötigt werden. Es steht Ihnen frei sich jederzeit von der Studie zurückzuziehen. Wenn Sie die Fragebögenenergebnisse, eine Kopie der Aufnahmen oder des Forschungsberichts wünschen, können Sie sie natürlich haben. Für jegliche Rückfragen stehe ich ([brtulot7@alumnes.ub.edu](mailto:brtulot7@alumnes.ub.edu), 618682639) oder meine Dozentin, Dr. Fernandez-Villanueva ([fernandezvillanueva@ub.edu](mailto:fernandezvillanueva@ub.edu)) Ihnen jederzeit zur Verfügung.

**Einwilligungserklärung**

Ich habe das Informationsblatt gelesen und eventuell offene Fragen bezüglich des Projekts mit Herr Tullock geklärt und ich willige hiermit die Teilnahme meines Sohnes / meiner Tochter .....

..... (Name) zu dem im Informationsblatt beschriebenen Projekt ein. Ich habe verstanden, dass die Teilnahme ohne Weiteres freiwillig ist und er/sie jederzeit das Recht hat sich von dem Projekt zurückzuziehen.

Unterschrift \_\_\_\_\_ Datum \_\_\_\_\_  
(Eltern oder Vormund)

Unterschrift \_\_\_\_\_ Datum \_\_\_\_\_  
(Teilnehmer)

Unterschrift \_\_\_\_\_ Datum \_\_\_\_\_  
(Forscher)



**Màster Lingüística Aplicada i Adquisició de Llengües en Contextos Multilingües**

Dpt. Filologia anglesa i Alemanya, Universitat de Barcelona

<http://www.ub.edu/masteroficial/laalcm/index.php?lang=en>

Informació sobre el projecte de Tesis de Màster

Estimat/da Senyor/a,

Em dic Brandon Tullock i estic cursant el Màster en Lingüística Aplicada i Adquisició de Llengües en Contextos Multilingües a la Universitat de Barcelona. Per al projecte d'investigació he escollit centrar-me en els processos d'escriptura dels parlants multilingües (castellà, català, anglès, alemany). M'he posat en contacte amb el Col·legi Alemany de Barcelona per realitzar la recollida de dades amb alguns dels seus alumnes i em permetran realitzar-la mitjançant uns questionaris i unes gravacions d'àudio (no de vídeo) que es realitzaran mentre els alumnes seleccionats escriuen dos textos en anglès.

Li estaria molt agraït si permetés participar al seu fill / a la seva filla en aquest estudi. Vull destacar que la identitat dels participants serà anònima i que les dades només seran utilitzades amb finalitats d'investigació i no tindran cap tipus d'explotació pública i que en qualsevol cas, si desitgen retirar-se del projecte, podran fer-ho sense problema. Si desitgen una còpia dels resultats dels qüestionaris o de la gravació els la proporcionaré amb molt de gust. Si desitgen més informació sobre l'estudi o té algun dubte, estic a la seva disposició ([brtulot7@alumnes.ub.edu](mailto:brtulot7@alumnes.ub.edu), 618682639), de la mateixa manera que la meua supervisora la Dra. Fdez-Villanueva ([fernandezvillanueva@ub.edu](mailto:fernandezvillanueva@ub.edu)).

Atentament,  
Brandon D. Tullock

**Consentiment Informat**

He llegit l'informació sobre el projecte del Brandon Tullock i dono el meu consentiment per a que el meu fill / la meua filla

..... participi en el projecte descrit i que sigui gravat donat que les dades només s'utilitzaran per a la seva investigació i el consentiment pot ser retirat en qualsevol moment sense conseqüències adverses.

Signat \_\_\_\_\_ Data \_\_\_\_\_  
(signatura dels pares o dels tutors)

Signat \_\_\_\_\_ Data \_\_\_\_\_  
(signatura del participant)

Signat \_\_\_\_\_ Data \_\_\_\_\_  
(signatura del investigador)