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## Multilingual Students' Writing in English

### The Role of Their L1(s)

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# Multilingual Students' Writing in English

The Role of Their L1(s)

Tina Gunnarsson



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LICENTIATE DISSERTATION

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<p>Abstract</p> <p>This thesis focuses on the languages of thought of multilingual students writing in English, a non-native language. The study examines which languages are used as languages of thought and what functions these languages serve for year-9 students (age 15-16) in a Swedish high school while writing an essay in English under exam-like conditions. The study sheds detailed light on individual differences among six multilingual students and the use of their different languages as languages of thought. Drawing on the translanguaging framework (García &amp; Wei 2014), the theory of language mode (Grosjean 2008) and a model of the L2 writing process (Wang &amp; Wen 2002), the study addresses the following research questions: a) Which of their languages do year-9 students draw on as languages of thought while writing an essay in English?, b) Are different languages used for specific purposes during the writing process?, and c) Do students feel helped by employing previously learned languages when writing an essay in English? Data consist of questionnaire responses (131 participants), think-aloud protocols (6 participants) and retrospective interviews (same 6 participants). Results show that the majority of the participants used Swedish, their L1 or L2, as a language of thought, and English, which is their L2 or L3. Participants who had another L1 in addition to Swedish used the other L1 to a very limited extent. Swedish was used as a language of thought for the purposes of generating ideas, structuring the essay, and when solving lexical problems. English was used for reading the essay prompt, formulating the English text and reading the participant's own text. The other L1 was used only to a limited extent for context-specific idea-generation about events that took place in a context where the other L1 was spoken. All six participants unanimously stated that drawing on their previously learned languages assists them when writing in English, most notably in lexical searches, but it also enables them to have a dialogue with themselves during the writing process. The present study, therefore, supports an inclusive language policy in English classrooms, not only of Swedish, but also of other languages represented in the classroom.</p>		
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# 1. Introduction, aim and research questions

The present study investigates the functions of the target language as well as previously learned languages of multilingual students in year 9, while writing in English. Specifically, it explores what functions the languages serve in the writing process. An additional focus is whether or not the students feel helped by using different languages of thought while writing. This issue of whether, when and how to use students' L1(s)<sup>1</sup> and any other previously learned languages in the teaching of English as a non-native language is a major current concern in the international research literature (DiCamilla & Antón 2012, Hélot & O'Laoire 2011, Velasco & García 2014). Despite the numerous studies showing individuals naturally using their L1(s) as languages of thought when writing in English as a non-native language (Cenoz & Gorter 2011; Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; van Weijen et al. 2009; Wang & Wen 2002) and the beneficial effects of using the L1 as a resource when engaging in L2 writing task (DiCamilla & Antón 2012; Velasco & García 2014), the issue remains unexplored in a Swedish context. Notably, no research has examined school-age individuals with a migrant background and how they employ their languages as languages of thought when engaging in a complex task such as L2 or L3 writing (Tholin 2012). The study is particularly motivated at the present time given the growing multilingual nature of Swedish classrooms with 23.8 % of our students being entitled to mother tongue instruction (The Swedish National Agency for Education 2014), a number which is expected to increase in the coming years.

The study focuses on an individual writing task in an exam-like situation in which students are provided ample time to plan, write and revise their essay. Research has shown writing to be a cognitively complex task (Manchón 2013; Murphy &

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<sup>1</sup> By L1 I refer to the first language or languages acquired by an individual before the age of three, which is often referred to as a cut-off point (McLaughlin 1984). The L1 is often referred to as an individual's mother tongue or native language. The terms L2, L3 and L4 refer to additional languages encountered and learned in chronological order after the L1.

Roca de Larios 2010; Riljaarsdam et al. 2012; Velasco & García 2014) and the demands on literacy in our society are increasing (Wedin 2010). In line with this increased demand for literacy, the Swedish national syllabus for English (LGR11) places considerable emphasis on communicative skills, i.e. speaking and writing (Skolverket 2011). The purpose of this study is therefore to further our understanding of how multilingual students employ their language repertoires while engaging in a complex task such as writing an essay in English, a non-native language. The aim is to make a contribution to the teaching of English in Sweden, which according to the Swedish Education Act should be based on research and best practice ('vetenskaplig grund och beprövad erfarenhet'). Thus, in order to contribute to the research basis for the teaching of foreign languages in Swedish schools, and to support teachers in their work in today's multilingual classroom, this thesis addresses the following research questions:

1. Which of their languages do year-9 students draw on as languages of thought<sup>2</sup> while writing an essay in English?
2. Are different languages used for specific purposes during the writing process?
3. Do students feel helped by employing previously learned languages when writing an essay in English?

The study focuses on students in year 9, which is the final year of compulsory school, where they sit national exams in different subjects, three of which are in English (testing the four skills; one speaking test, one listening and reading test and one writing test). Although serving as a complement to the teachers grading, the tests are high-stakes exams as a pass grade in English is required in order to gain entry to upper secondary school. This study employs the writing prompts used in four past national tests. The prompts are described in further detail below in section 3.2.

The data collected to address the first research question aims to establish which languages are employed in the writing process of English through the use of a questionnaire, think-aloud protocols and retrospective interviews. It further focuses on the extent to which different languages are used in the think-aloud protocol by calculating the number of words spoken in each language.

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<sup>2</sup> By 'language of thought' I refer to Cohen's definition of inner speech, "that is the thinking we do in our minds that is in the form of words rather than images or symbols" (1995:2).

The second research question addresses the different functions the students' previously learned languages may have as languages of thought during the writing process. We know from previous research on L2 writing in English that the L1 is often used when students are generating ideas for their essays, especially if the content of the essays has derived out of experiences gained through their L1 (Friedlander 1990; Lay 1988; Wang & Wen 2002). Equally, structuring and controlling the writing process have also been shown to lead to L1 use among bilingual students, whereas examining the prompt and the stage at which students are producing words have been shown to be L2 dominant (van Weijen et al. 2009; Wang & Wen 2002). As previous studies have shown the use of both L1 and L2 for different purposes while writing, this study seeks to investigate whether this also holds true in a Swedish context.

The third and final question seeks to contribute to an emerging research basis as to whether employing the background languages as languages of thought while writing is perceived as helpful to the students themselves. To the best of my knowledge, no previous research in the area of multilinguals' writing in English (as an L2 or L3), addresses the issue of whether students feel helped by drawing on their background languages after having the experience of thinking aloud under different conditions. The present study therefore aims to be the first of its kind by not only employing three different methods, i.e. through triangulation, to gather data from the same participants, but by combining think-aloud protocols with retrospective interviews in which the participants are able to state their preferences.

## 2. Background

### 2.1 Multilingualism versus the monocultural norm in Swedish schools

In 2010 the Swedish Schools Inspectorate released a report stating that students with a non-Swedish background received lower grades than students with a native Swedish background after nine years of compulsory schooling. The Swedish Schools Inspectorate hypothesized that this may be due to school staff not taking these students' social, cultural and language backgrounds into account. A study by Tholin (2012) likewise argues that students with a non-native Swedish background may be disadvantaged when learning English in our schools, as teachers typically draw parallels to the Swedish language and culture in their teaching of English. This is in line with what is known as the 'monocultural norm', where teachers presume that students all adhere to the same cultural and language background and teaches the class as a homogenous group (Elliaso Magnusson 2010; Lahdenperä 1999). Lundahl (2012:93) sheds light on the fact that many coursebooks in English have Swedish equivalents for both vocabulary and grammar, which may make it more difficult for students with a different L1 to acquire English when their proficiency in Swedish is low. Asking these students to use Swedish to compare and contrast the target language English therefore means to subject these students to unnecessary strain. Studies have shown that students are well aware of the monocultural norm. They know that they are expected to use Swedish in school rather than other languages that they know (György-Ullholm 2010; Haglund 2004; Ladberg 2003). This state of affairs stands in stark contrast to research showing that the use of background languages<sup>3</sup> can be beneficial in the acquisition of additional languages (Baker 2011; Cenoz & Gorter 2011; Creese & Blackledge

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<sup>3</sup> The term 'background languages' has been used to denote the L1 and L2 in studies of L3 acquisition (Falk & Bardel 2010). In the present study, 'background languages' will be used to denote the L1, both L1s (for simultaneous bilinguals) and the L2 (in cases where English is learnt as an L3).

2010; Edelsky 1986; Hornberger 2003) and, according to Cummins (1996), lead to the empowerment of students when taken into consideration in the language classroom.

The debate on the monocultural norm versus the multilingual classroom has been long ongoing in other countries, such as The United States, and goes hand in hand with the question of whether the L1 has a place in the instruction of L2. Though some researchers advocate a strict L2 only policy in the language classroom, Levine (2011) argues that more time will be spent communicating in the L2 if the L1 is not prohibited. This is supported by studies in which a translanguaging approach has been adopted, resulting in positive outcomes such as lesson accomplishment and an increase in students' motivation, comprehension and participation (Arthur & Martin 2006; Baker 2011; Creese & Blackledge 2010; Cheng 2013; García et al. 2012; Källkvist 2013a; 2013b; Lin 1999; Lin & Martin 2005) (more on this in section 2.2). In the Swedish context, Lundahl (2012) argues that one of the most important issues in English language teaching is that students get accustomed to using English as the language of conversation in class. At the same time, Lundahl also posits that expressing oneself in the L1 can be hard enough when it comes to metacognitive issues and that the gap between understanding and expressing understanding therefore may warrant the use of Swedish. I argue that we should go beyond Swedish and include students' L1(s).

In research, the native speaker ideal has often been a point of reference. What tends to be overlooked in these circumstances is that second language learners are often third language learners or even fourth language learners, having acquired two or more L1s since birth. According to Levine (2011), most of these students will never reach native-like proficiency and the instruction in the classroom needs to instead realize the potential of the multilingual speaker as "dual or multiple code use is both natural and the norm in many, or possibly all, societal bilingual situations" (2011:16). Not acknowledging the background languages of our students "is to ignore a large part of the L2 learning process and the individual learner's personal experience" (Levine 2011:5). Likewise, Lundahl (2012) questions the native-speaker ideal as few students will ever reach the ability to sound native in their speech. He further argues that the sheer variation among native speakers themselves when it comes to grammar and pronunciation contradicts the native speaker as the ideal target for language learners, as the native-speaker becomes hard to define. The translanguaging framework, to which I now turn, offers an alternative approach to the monocultural and monolingual norm.

## 2.2 The translanguaging framework

One pedagogic approach that explicitly takes the background languages of the students into account is the translanguaging framework (García 2009; García & Wei 2014). A particularly lucid description of translanguaging comes from Canagarajah who defines it as “the ability of multilingual speakers to shuttle between languages, treating the diverse languages that form their repertoire as an integrated system” (2011:401).

The term ‘translanguaging’ was first coined by researcher Cen Williams in Welsh (*trawsieuthu*) in 1994 for his PhD dissertation. It was originally defined as a teaching method whereby students would receive instruction in one language and write in a different language. In 2011, the Welsh term was translated into the English term translanguaging by Baker, who defines it as “the process of making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages” (2011:288). In recent years, several researchers have contributed to the advancement of the concept through their own empirical research (Canagarajah 2011; Creese & Blackledge 2010; García 2009; 2013; García & Wei 2014; Wei 2011; Velasco & García 2014). Through the work of García (2013) the term translanguaging has been further developed and is now referred to as a theory of bilingual communication. In this theory, languages that have previously been conceived of as being stored and processed separately in the minds of multilinguals are now combined to form a ‘new’ language (García & Wei 2014). The theory, therefore, goes against previous research that deemed languages to be stored separately in the mind, instead seeing languages as part of a multilingual’s complete linguistic repertoire (Velasco & García 2014). This is what separates translanguaging from the concept of code-switching, the term frequently used to denote switches between different languages. Code-switching assumes that two separate linguistic systems are being employed (Velasco & García 2014). By translanguaging, a multilingual’s mixing of items from languages codified as ‘English’ and ‘Spanish’ is seen as ‘language’ as much as Spanish and English being conceived of as two separate languages (García & Wei 2014).

The translanguaging approach also steps away from the traditional monolingual view of teaching languages as compartmentalized subjects into allowing the learners to use their linguistic repertoires as a whole to facilitate learning. This view of conceptualizing language is evident in educational language policies such as the Common European Framework of Reference for Languages (CEFR) from where the following quote is taken:

The learner of a second or foreign language and culture does not cease to be competent in his or her mother tongue and the associated culture. Nor is the new

competence kept entirely separate from the old. The learner does not simply acquire two distinct, unrelated ways of acting and communicating. The language learner becomes plurilingual and develops interculturality. The linguistic and cultural competences in respect of each language are modified by knowledge of the other and contribute to intercultural awareness, skills and know-how. They enable the individual to develop an enriched, more complex personality and an enhanced capacity for further language learning and greater openness to new cultural experiences (CEFR 2001:43).

It is this *skill* and *know-how* that results in the new *whole* that is sought after in translanguaging, i.e. the right to use different culturally-specific languages to create a new whole when communicating (García & Wei 2014).

Research has revealed that the use of a translanguaging approach in the classroom can lead to increased student participation in teacher-led discussions (Källkvist 2013a; 2013b), make it easier for students to get their point across (Arthur & Martin 2006; Lin & Martin 2005), lead to increased student motivation (Lin 1999) and to the message of the instructor being more easily comprehended by the students (Baker 2011; Creese & Blackledge 2010; Cheng 2013; García et al. 2012, Williams 1994). Students of different ages have been shown to translanguauge, drawing on their complete linguistic repertoires, for example by employing their literacy skills in their L1 to support their writing in L2 (Edelsky 1986; Lanauze & Snow 1989). The implementation of a multilingual pedagogy specifically for writing has been shown to facilitate the writing process (Lay 1982) and also to improve the text (Cummins 2006).

Translanguaging has further led to the advancement of the concept of 'transcaring', which refers to the ways in which school staff (teachers and administrative personnel) take the students' languages, cultures, experiences and ways of performing into account, leading to a higher success rate in terms of students graduating from secondary school in the United States (García et al. 2012). According to García, incorporating the home languages of the students in the classroom is a question of social justice, which she explains further in the quote below:

The social justice principle values the strength of bilingual students and communities, and builds on their language practices. It enables the creation of learning contexts that are not threatening to the students' identities, but that builds multiplicities of language uses and linguistic identities, while maintaining academic rigor and upholding high expectations (2009:419).



In Sweden, students who use a language other than Swedish in their home environment on a daily basis are offered mother tongue instruction by the municipality<sup>4</sup>. In the school year 2014/2015, the number of students eligible for instruction in their mother-tongue made up 23.8% of the student population, a number that is steadily increasing (Skolverket 2014). These are students who were either born abroad or born in Sweden to parents of a different language background. Despite the fact that these students make up more than a fifth of the student population in Swedish compulsory schools, we know virtually nothing about how they employ their languages for learning (Tholin 2012). The participants with a non-Swedish background know that few school staff can understand their home language, e.g. Arabic or Bosnian (György-Ullholm 2010; Haglund 2004; Ladberg 2003). They, therefore, activate languages depending on their interlocutor. Grosjean's theory of language mode along with the translanguaging approach concerns bilingual individuals' activation of their different languages and will therefore serve as the theoretical framework in this thesis and will be described further below.

### 2.3. Language mode: a theory of the activation of bilinguals' languages

'Language mode' refers to how bilinguals activate their languages for different purposes in different communicative settings. Language mode posits that a speaker of two languages never fully deactivates one of the languages, but rather that both languages are always active albeit to varying degrees (Grosjean 2008). More specifically, language mode refers to "the state of activation of the bilingual's languages and language processing mechanisms at a given point in time" (Grosjean 2008:39). The concept of 'base language' is fundamental to the theory of language mode: the strongest or dominant language activated at a given point in time. The second fundamental aspect is the comparative activation of the two languages, i.e. the degree of activation of the second language (also known as the 'guest language') compared to the base language (Grosjean 2008). The base language is chosen by the speaker and "governs the language production process

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<sup>4</sup> Mother tongue instruction is offered provided a minimum of 5 students require instruction in the same language and provided the local municipality can recruit a teacher. The instruction usually entails one class of approximately 40 minutes per week.

(it is the ‘host’ or ‘matrix language)’” (2008:46). According to Grosjean, if a bilingual person of English and Spanish converses with a monolingual person of English, English will be chosen as the base language and the bilingual will suppress Spanish so as to be in a monolingual mode. However, if it later turns out that the interlocutor is actually a bilingual of English and Spanish as well, the bilingual may enter into an intermediate mode or bilingual mode, thereby activating and perhaps using both languages. The difference between the intermediate mode and the bilingual mode is the level of activation of the guest language. In the intermediate mode, the bilingual may use occasional code-switches and borrowings from the guest language depending on whether the conversation allows for it (it may depend on the situation, whether formal or informal or the interlocutor being in favor of code-switches or not), while the bilingual mode suggests a higher level of activation of the guest language, which may even be close to the level of activation of the base language. The base language will, however, always be slightly more activated than the guest language (Grosjean 2008).

Another fundamental aspect of the theory of language mode is the complementarity principle, which refers to the need for different languages to be used in different settings in the everyday life of a multilingual. The principle was first advanced by Grosjean in an article in 1997, in which he stated:

Bilinguals usually acquire and use their languages for different purposes, in different domains of life, with different people. Different aspects of life often require different languages (Grosjean 1997, in Grosjean 2008:23).

According to Grosjean (2008), some will remain mainly in a monolingual mode, only slightly employing the other language, while others have a greater tendency to enter a bilingual or an intermediate mode, thereby activating more than one language simultaneously. Even with a shared language background, individual differences can therefore be considerable.

The present study was designed against this background: the translanguaging framework that recognizes students’ multilingual and multicultural assets as they work individually on the complex task of writing in a non-native language (English), and how they come to use English as the only accepted language in their essays. Teachers marking and grading student essays in year 9 expect students to write the entire text in standard English and any code-switches to be avoided.

There is a considerable amount of research on the writing process in general and student writing in English. Below, I review relevant research in these areas.

## 2.4 Previous research on the writing process

Previous empirical research focusing on multilinguals' thought processes has shown that the L1 is often used to aid students when writing in a L2 (Cumming 1989; Manchón et al. 2000; Sasaki 2000; Uzawa 1996; Wang 2003), particularly when planning and generating ideas for the content (van Weijen et al. 2009; Wang & Wen 2002) and when faced with a lexical gap in the target language (Murphy & Roca de Larios 2010; van Weijen et al. 2009; Wang 2003). While some studies suggest that less proficient L2 learners of English are more likely to rely on their L1 during the L2 writing process (DiCamilla & Antón 2012; Manchón et al. 2009; Uzawa 1996; Wang & Wen 2002), others have shown that the L1 is used regardless of proficiency (Murphy & Roca de Larios 2010; van Weijen et al. 2009; Wang 2003), but for different purposes. Whereas the L1 was mainly used for lexical gaps in the Murphy and Roca de Larios (2010) study, it was used by proficient learners of English in the Wang (2003) study for the purpose of enriching their text.

Studies regarding learners of English as L3 or L4 have also found that the L1 plays a prominent role when learners are writing as part of think-aloud studies (Cenoz & Gorter 2011; Jessner 2006; Tullock & Fernández-Villanueva 2013). As L3 learners have more linguistic resources at their disposal than L2 learners, the process of writing becomes an even more complex task (Cenoz & Gorter 2011). Studies of cross-linguistic influence have revealed that both the L1 and the L2 are employed when an L3 is acquired (Falk & Bardel 2010) and that the influence of the different languages when writing is multidirectional (Cenoz & Gorter 2011).

The studies that are of particular relevance to this thesis are Cenoz and Gorter (2011) and Tullock and Fernández-Villanueva (2013), as they investigated multilingual students of approximately the same age<sup>5</sup> as the participants in this study (aged 15-16). Cenoz & Gorter's (2011) study focuses on 165 secondary students in the Basque country, with the L1 being either Basque (31%), Spanish (46%) or simultaneous L1s Basque and Spanish (23%) and English L3<sup>6</sup>. The

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<sup>5</sup> In Cenoz and Gorter's (2011) study the mean age of the participants was 14.6 years and the participants in the Tullock and Fernández-Villanueva (2013) study were 16-17 years old.

<sup>6</sup> Cenoz and Gorter (2011) refer to the number of languages present in their study labelling them as L1, L2 and English as L3 despite the fact that 23% of their participants had simultaneous L1s and therefore, by my way of categorizing, should have English as L2.

participants were asked to write three compositions, one in each language, using a picture prompt. Additional data was gathered from the Spanish social network called Tuenti, as examples of the participants' natural use of written language outside of school. The results revealed that the participants applied similar general writing skills across all three languages in terms of content, structure, vocabulary, grammar and mechanics. The correlational analysis of the essays revealed that a high score on one of the components, such as vocabulary, resulted in a similar score on the same component in the essays written in the other languages. The analysis also revealed that cross-linguistic influence was multidirectional between the different languages, i.e. the L1 influenced both the L2 and the L3; the L2 influenced the L1, and the L3 was shown to influence both the L2 and the L1. However, the most common cross-linguistic influence was found from the L1 and the L2 to the L3 (English). The study shows that these multilingual participants employed their complete language resources when writing these essays, selecting the linguistic features that suited the intended meaning the best (Cenoz & Gorter 2011).

The second study of particular relevance to this thesis is Tullock and Fernández-Villanueva (2013), who investigated 10 multilingual secondary school students' use of languages when thinking aloud while writing in English, which was their L4. The participants, who were attending a German immersion school in Cataluña, Spain, had three different L1s: Spanish (N=3), Catalan (N=3) and German (N=4). Results revealed that all participants activated the school language, German, although eight out of the ten participants mainly employed their L1 as a language of thought. When engaged in lexical searches, seven out of the ten participants employed three or four languages, leading the authors to conclude that "multilingual writing is indeed a multilingual event" (2013:438). They suggest that daily use of a language seems to be a good indicator of whether or not that particular language will be employed in the writing process of English in this context (Tullock & Fernández-Villanueva 2013).

A third central study is the empirical work and composing process model of L2 writing by Wang and Wen (2002). Although their study involved participants who were slightly older (18-22 years), their model of the L2 writing process was used as a basis for analyzing the data of the present study. The model, which will be explained further below, was based on the composing activities identified in the think-aloud protocols produced by 16 Chinese university students of English L2. The five composing activities identified are *task-examining*, *idea-generating*, *idea-organizing*, *process-controlling* and *text-generating*, which were engaged in by all students. For the elicitation of the think-aloud protocols, prompts for a narrative and an argumentative text were used in which the participants were prompted to think aloud in the languages of their choice. The results showed that all participants employed their L1 to different extents and that the L1 (Chinese) and

the L2 (English) were employed for specific activities. Three of the composing activities were shown to be L1 dominant, meaning that the L1 was employed more than the L2 as a language of thought: *idea-generating*, *idea-organizing* and *process-controlling*. The use of the L1 in these three activities is attributed to the fact that the participants' world knowledge and rhetorical knowledge was gained mainly using their L1. The authors conclude by stating that their findings indeed "confirm that the L2 writing process is a bilingual event" (2002:239), a finding later confirmed also by Cenoz and Gorter (2011) and Tullock and Fernández-Villanueva (2013).

## 2.5 The L2 writing process

Decades of research have revealed that the writing process can generally be characterized by three overlapping sub-processes: *planning*, *formulation* (sometimes referred to as *translation*) and *revision* (Bereiter & Scardamalia 1987; Flower & Hayes 1981; Hayes 1996; Kellogg 1999; Murphy & Roca de Larios 2010; Riljaarsdam et al. 2012; Strömquist 2007; Van Den Bergh & Riljaarsdam 2001; Zimmermann 2000). At the planning stage, the writer analyses the instructions for the task, generates ideas for the content and decides on the chronological ordering of the ideas. The second stage is the formulation of text, which includes a number of sub-processes such as writing, problem solving and evaluating, while revising constitutes the final stage. Empirical work on the writing process has further revealed that writing is dynamic and recursive, as writers have a tendency to go back and forth between the different stages several times when writing a text (Wang & Wen 2002; Zimmermann 2000).

Research has shown that the three sub-processes of planning, formulating and revising involve a number of different composing activities (Breetvelt et al. 1994; Flower & Hayes 1981; Wang & Wen 2002). These include activities carried out during the writing process, such as generating ideas, structuring the text, setting goals, meta-commenting, rereading and evaluating (Breetvelt et al. 1994; Flower & Hayes 1981; van Weijen et al. 2009; Wang & Wen 2002; Zimmermann 2000). Again, these activities are typically not engaged in by writers in a linear fashion, as rereading the text produced during the writing process can generate a new idea, which in turn can lead to a revision of the plan and to new formulations in the text. Research has further shown that the writing process and the composing activities engaged in may vary between different individuals and within individuals depending on task (Riljaarsdam et al. 2012). For example, in their study of 20 Dutch university students of English L2, van Weijen et al. (2009) employed four prompts for argumentative essays, which revealed within-writer variance

depending on essay topics. Breetvelt et al. (1994) further revealed differences between individuals in terms of the number of times the cognitive activities were engaged in during the writing process.

One characteristic of the L2 process is that writers have at least two languages at their disposal: the L1(s) and the L2. As mentioned in section 1 above, the L1 has been found to serve several different purposes when writing in L2. These purposes include comparing and contrasting in order to double check the intended meaning of the text in L2 with the L1 (Cumming 1990) and the use of strategies such as *back-translations* (Wolfersberger 2003), *rehearsing* and *postponing* (Velasco & García 2014). When writing in L2, the L1 has been shown to be employed particularly when L2 writers generate ideas, especially when these ideas relate to experiences gained through the writer's L1 (Friedlander 1990; Lay 1988).

## 2.6 A model of the L2 writing process

### 2.6.1 The Wang and Wen model (2002)

For the purpose of this study, the Wang and Wen (2002) model (see Figure 1 below) of L2 writing was employed as it was developed on the basis of the well-established Flower and Hayes model of L1 writing, with adjustments made on the basis of Wang and Wen's L2 English data. The Flower and Hayes (1981) model has been used and tested in many studies over the years (see e.g. Breetvelt et al. 1994; Van den Bergh & Rijlaarsdam 2001; Zimmermann 2000) and was, in turn, based on a problem-solving model by cognitive psychologists Newell & Simon (1972). The model consists of three components: The Task Environment, which contains the task itself, The Composing Processor, which concerns the writing process as such, and the Writer's Long-term Memory, which contains world knowledge, rhetorical knowledge and linguistic knowledge.

In 2002, Wang and Wen adjusted the model by Flower & Hayes (1981), as the representation of the three stages of writing in the model, i.e. planning, translating and formulating, were considered too linear. Following their study of L2 writing in English, the added multidirectional arrows demonstrate the recursiveness of the writing process while at the same time making it suitable to their study of L2 learners of English by adding different geometric figures representing the two languages, an ellipse for activities typically carried out while thinking aloud in the L1, squares for activities engaged in while thinking in the L2 only and rectangles for activities where their language of thought was mainly the L2.

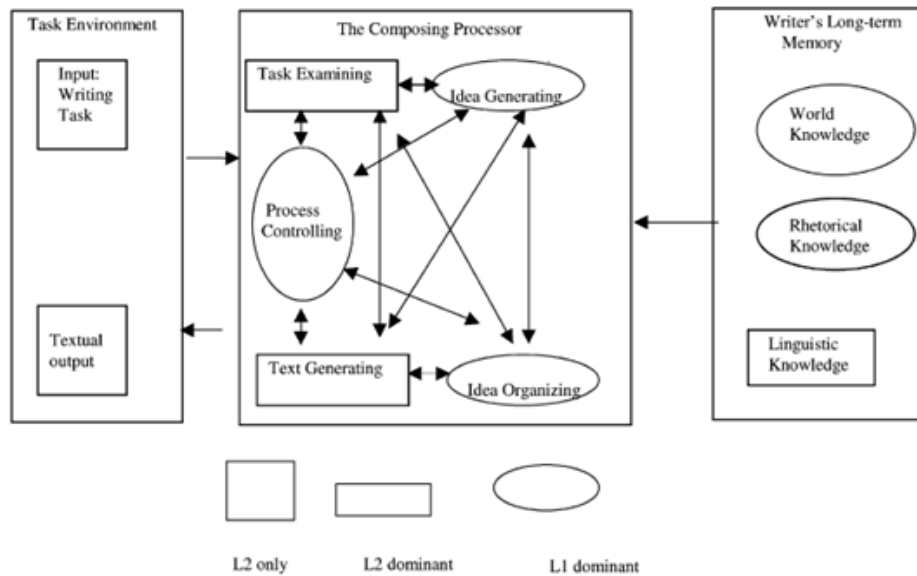


Figure 1. The composing process model by Wang and Wen (2002).

The Wang and Wen (2002) study focused on the second component, i.e. The Composing Processor. By prompting 16 Chinese University students (4 sophomores, 4 juniors, 4 seniors, 4 freshmen aged 18-22) to think aloud in the language of their choice while writing one argumentative and one narrative text, they distinguished 5 composing activities present in their data: *task-examining*, *idea-generating*, *idea-organizing*, *process-controlling* and *text-generating*. The first activity, *task-examining*, refers to the processing of the instruction being used for the writing task. Here, the writer analyzes the prompt to make sure he/she understands what is required and may also comment on the task as such. This is an activity which most writers return to during the course of writing to double-check that they are following the guidelines provided. *Idea-generating* and *idea-organizing* refer to the conceptualization of the content and the organization thereof, in other words what to write about and in what order. Included in both idea-generating and idea-organizing is an evaluative element, to weigh different ideas against each other and to evaluate the choice of order of the selected ideas for the content. *Process-controlling*, on the other hand, relates to the structuring of the text, for instance paragraphing, forming a suitable title, keeping track of any word and time-limit and stating a need to read things through to double check. The final activity, *text-generating*, concerns the stage where pen is put to paper (or fingers to keys) and the actual writing commences. The text-generating activity

includes both the production and review processes. Stating that you need to read through the text is process controlling, while the actual reading of the text for review purposes is considered text-generating. Sounding out words while writing and formulating sentences pre-writing as well as comments made about stylistic choices and grammar during the writing process were coded as text-generating by Wang and Wen (2002). In the process of analyzing the data for research question 2, Wang and Wen's text-generating category proved too comprehensive, including a range of rather different processes, notably both encoding and decoding text as well as problem-solving. For the purpose of addressing research question 2, I propose an elaboration of the text-generating composing activity, to which I now turn.

### **2.6.2 An elaboration of the text-generating composing activity**

In this more fine-grained analysis, the text-generating activity is divided into decoding, encoding and problem-solving sub-activities presented in Figure 2 below. While the decoding sub-activity entailed the participants reading through what they had written at a normal reading pace, the encoding sub-activity involved three sub-activities: writing and formulating. 'Writing' is the part of text-generating in which the participant sounds out the words while writing at the same time, whereas 'formulating' refers to words or phrases being uttered before they were written down. 'Formulating' was further divided up into 'back translation' and 'rehearsal', two strategies that have previously been identified by Velasco and García (2014) as used by learners when writing in L2. 'Back translation' refers to the participant translating words, phrases and entire sentences from L1 to L2 and sometimes translating back again to the L1. 'Rehearsing' involved the participant trying out different words or phrases in order to select the most appropriate wording for the text. Problem-solving is proposed to be a separate category, as it is cognitively quite distinct from reading and writing. It breaks down into 'metacomments', 'metamarkers' and 'lexical gaps'. Metacomments refer to comments the participants made in the middle of writing regarding stylistic choices, spelling issues or concerns about grammar. Metamarkers refer to words the participants said in order to signal that something needed to be changed, such as "vánta" (*wait*) or "nej" (*no*) or to confirm that change was warranted such as "ja" (*yes*) or "ok" after a change had been made. 'Lexical gaps', on the other hand, were instances where the participants specifically stated that they did not know a word or that a word was missing.



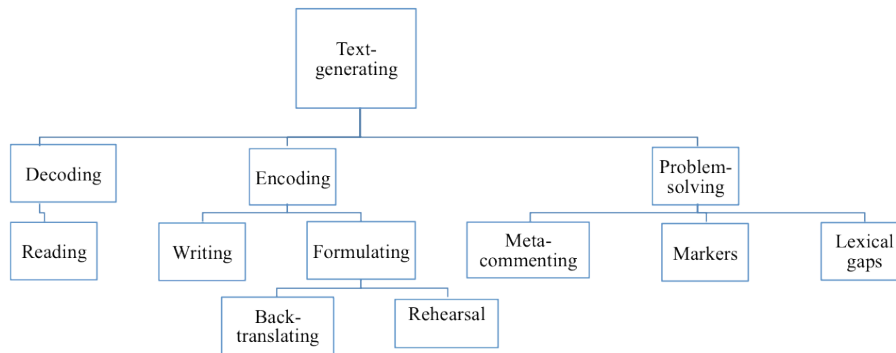


Figure 2. Text-generating with sub-activities

In sum, the present study uses the Wang and Wen (2002) model of L2 writing as an analytical tool for analyzing the data, which also allows for replicating the Wang and Wen study. The further elaboration of Wang and Wen's text-generating composing activity is also used as it proved suitable for addressing research question 2. Having set this background, I now turn to describing the present study in further detail.

## 3. The present study

### 3.1. Methodology

The data for this study was collected through means of triangulation<sup>7</sup> involving three different sampling methods: a questionnaire (i.e. self-reported data), think-aloud protocols (TAP) (i.e. data collected during online processing) and retrospective interview data. Using a questionnaire allowed for the collection of quantitative data<sup>8</sup> from a relatively large number of participants, in the end 131 students in year 9. Out of these 131 individuals, six participants were selected on the basis of their linguistic background for a qualitative<sup>9</sup>, in-depth study using think-aloud protocols and a retrospective interview to complement the quantitative self-reported data. These six individuals volunteered to write four essays on four different occasions under three different think-aloud conditions (the fourth essay was written without thinking aloud) and to take part in a retrospective interview following completion of the fourth essay.

Figure 3 below provides an overview of the study as a whole, starting with the questionnaire, which was followed by the first think-aloud session approximately one week after and ended with the retrospective interview after there had been a total of four sessions approximately four weeks later. In the first essay, the six participants were asked to think aloud in the language(s) of their choice. This was done in order to see which languages the participants would use naturally. For the

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<sup>7</sup> Triangulation means that a phenomenon is investigated from different angles using multiple sampling methods (Mackey & Gass 2005).

<sup>8</sup> ‘Quantitative data’ is used to refer to data that is countable and measured in terms of frequency (Heigham & Croker 2009).

<sup>9</sup> By ‘qualitative data’ is meant data which is not numerical but rather seeks to understand a phenomenon more deeply by examining fewer examples of rich data, for instance, collections of words or audio-recorded data, often from an ethnographic perspective (Heigham & Croker 2009).

second essay the participants were instructed to think aloud in English only, and in the third in Swedish only. The purpose of instructing the participants to think aloud in these two languages respectively was to see whether eliciting a language of thought would have an effect on the thought processes and the quality of the essays. Due to time constraints, the present study examines the questionnaire data, the think-aloud data for essay 1 and the retrospective interview data. The data collected while participants were writing essays 2 and 3 will form part of a future project. Although the results of the second and third essays will not be covered in this thesis, they are still included as part of the overall design as the participants could draw on their experiences of writing all four essays in the retrospective interview. The fourth essay was written without thinking aloud in order to control for the dual task, i.e. the extra cognitive load of not only writing an essay but also thinking aloud.

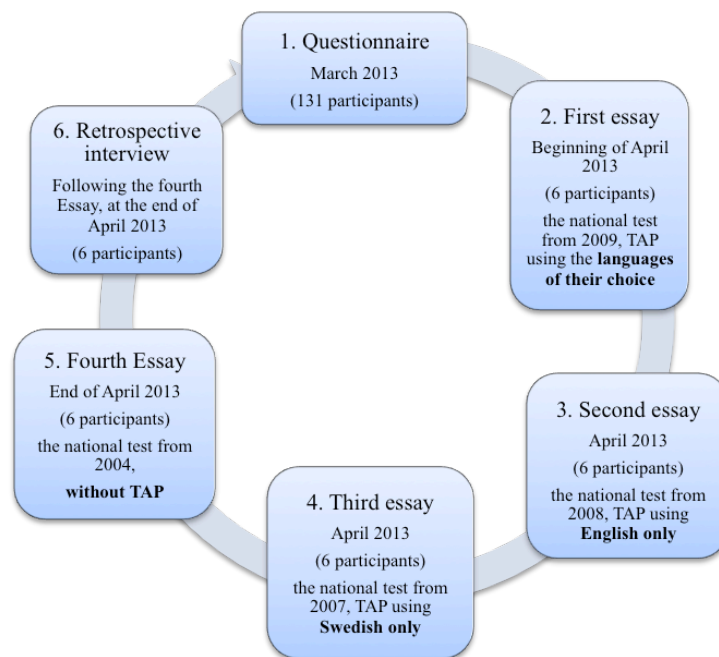


Figure 3. The triangulation design

### 3. 1. 1 The questionnaire

The design of the questionnaire was based on the guidelines provided in Dörnyei (2010) and Trost (2012) as to the formulation and order of the questions. It consists of 19 questions (see Appendix in Study 2) and was distributed in six

different classes on six different occasions during a normal lesson. It was piloted on one student in year 9 beforehand, who completed the questionnaire while thinking aloud. The pilot session was audio-recorded and the analysis resulted in one change in the questionnaire before it was used for the main data collection. This change consisted of a number correction for the Likert scale<sup>10</sup> that was used in question 17, where the piloted version contained the number 5 instead of 4 for the different responses available.

According to Dörnyei (2010), a questionnaire is not without limitations. Although it allows for large amounts of data to be collected in a short amount of time, in order for the data to be of value the questions need to be simple and understandable by the participants. It is not uncommon that participants misunderstand questions or unintentionally/intentionally skip questions or alternatively answer questions they do not know the answer to. There may also be a social desirability to answer questions in a specific manner. While limitations cannot be avoided, some measures can be taken to try to limit them as much as possible. In this study, the pilot session was one such measure; me being present and able to answer questions was another.

The students were first given brief information in writing one week in advance, which was followed by a letter to their parents informing them about the nature of the research being undertaken. On the day of distribution, the students were provided with the same information once more and were allowed to ask questions before filling in the questionnaire. I was present to assist as the students completed the task, which took 15-20 minutes. The students were further informed that this was the first time a study like this had been carried out in Sweden and so seemed to take the task seriously, asking questions as to how to answer the questions in the best possible way. My presence, therefore, only seemed to reassure the participants that they were completing the task as instructed.

All of the information was given in Swedish, which was also the language used in the questionnaire. I acknowledge that the language used in the questionnaire may have had a priming effect with regards to what languages the participants reported using when writing an essay in English. However, considering that the participants' English proficiency varies more than their proficiency in Swedish, I chose Swedish as the mediating language of the data collection. This was done as

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<sup>10</sup> A Likert scale “consists of a characteristic statement and respondents are asked to indicate the extent to which they ‘agree’ or ‘disagree’ with it by marking (for example, circling) one of the responses ranging from ‘strongly agree’ to ‘strongly disagree’”(Dörnyei 2007:105).

it was of utmost importance that the participants understood both the information and the questions that were posed to them. It cannot be established that using English as the mediating language to inform the students and collecting their answers would not have altered their answers in favor of reporting more English to be used as a language of thought when writing. The results that are presented will therefore have to be interpreted with this limitation in mind.

### **3.1.2 The think-aloud data (TAPs) and essay prompts**

#### *3.1.2.1 Preliminary*

The present study uses think-aloud data<sup>11</sup> as it is the only method able to access real time data, i.e. there is no time lapse between the thought being produced and the thought being reported (Bowles 2010). Although think-aloud data have been shown to be reactive for latency, i.e. making the students take longer to complete the task, the think-aloud method has been shown to be non-reactive for accuracy, i.e. students produce the same quality of text with or without thinking aloud (Ericsson & Simon 1993). This is, of course, provided that students do not need to explain their thought processes, what has been known as a ‘metalinguistic protocol’, but rather verbalize their thoughts without explanation (a so called non-metalinguistic protocol) (Ericsson & Simon 1993). Protocols in which the participant not only needs to think aloud but also explain and describe his/her thoughts have been shown to alter the process (as shown above) thereby yielding different results than if the subject had not thought aloud (Ericsson & Simon 2010). The method has been considered controversial as it cannot be proven that what is in fact verbalized can be equaled to the actual thought processes of the participant (Smagorinsky 1998). Think-aloud data have also been criticized for adding to the cognitive load of the writer (Jourdenais 2001) as well as the fact that not all thoughts are verbalized (Ericsson & Simon 1984). However, so called ‘reminders’, i.e. a signal to remind the participant to keep verbalizing when there is a longer pause, have been known to limit the percentage of unreported data (Bowles 2010; Ericsson & Simon 2010).

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<sup>11</sup> Think-aloud protocols or verbal reports “are a learner’s comments recorded either while s/he completes a task or sometime thereafter” (Bowles 2010:1). In this study so-called concurrent think-alouds are used, or verbal reports, that were completed during the writing task (Bowles 2010).

### 3.1.2.2 *The IP versus CHAT theory of human cognition*

The human mind allows for two different ways of storing information: in long-term memory (LTM) and in short-term memory (STM) (Ericsson & Simon 1980). While the former allows for more permanent storage, the latter is more fleeting and the information stored in the STM is generally the information that was last attended to. When acquiring a new piece of information it will first be stored in STM and then gradually transfer to LTM as the individual learns to recognize the information in STM a certain amount of times (which may vary from individual to individual) and is able to draw parallels, or connect the information to prior knowledge. While scientists debate whether STM is actually a part of LTM that is being specifically addressed or whether these two types of memories are separate, they all seem to agree that STM deals with the information that is being processed in the here and now, while memories from LTM are more permanent and require transfer to STM before they can be heeded to. Information can thus be recognized and linked or associated to existing information in LTM through STM and then be retrieved. It is in LTM the individual will find patterns of information linking to other pieces of information, in what Ericsson and Simon describe as memory nodes (1980). According to Ericsson and Simon, “thinking can be represented as a sequence of thoughts (relatively stable cognitive states) interspersed by periods of processing activity” (2010:180). Adding a think-aloud condition to the sequence of thought does not alter the sequence unless the protocol calls for information that would not be attended to otherwise. It is therefore of great importance when eliciting a verbal protocol (otherwise known as a concurrent protocol or think-aloud protocol) to take precautions to prevent the participant from explaining or describing the thought processes as this will invoke information stored in the LTM, which would otherwise not have been used, thereby altering the thought processes for the task. When asking a participant to verbalize information that is given in the form of pictures or images the image or picture will first have to be translated into words to be verbalized, which may increase time spent on the task.

An alternative theory of thinking is the cultural-historical activity theory (CHAT), which was inspired by Vygotsky (1987) among others. This theory posits that a person’s utterances are filtered through his/her cultural and historical development and also that all communicative experiences are social acts. According to Smagorinsky, “a concurrent verbal protocol has the appearance of being a solitary act, yet from a CHAT perspective can only be understood as a social act” (1998:161), as the participant is communicating with an intended interlocutor. In his article from 1998, Smagorinsky quotes Vygotsky, who states that:

Thought is always something whole, something with significantly greater extent and volume than the individual word. ...What is contained simultaneously in thought unfolds sequentially in speech. Thought can be compared to a hovering cloud which gushes a shower of words (1987:281).

In this view, a think-aloud protocol will not reveal the actual thinking process the mind is occupied with in its entirety. Even more important is that the researcher and participant need to establish an understanding of each others' cultural and historical background in order for the researcher to be able to interpret the data accurately. The meanings attached to words further need to be concurred between the two individuals in order to avoid misunderstandings. Ericsson and Simon's response to the CHAT theory and the criticism of the IP theory and of the think-aloud method is that thinking always involves a person's experiences from a cultural and historical perspective and that this is knowledge stored (in LTM) and gained through social interaction. This knowledge can be retrieved when the individual recognizes the need to apply the acquired skills in the think-aloud protocol. Regardless of a person's development and cultural-historical background, the sequence of thought while performing a task can be analyzed through the method of thinking aloud (Ericsson & Simon 2010).

### *3.1.2.3 Eliciting the think-aloud data*

Before the think-aloud protocols were elicited, a pilot study was carried out in order to verify the suitability of the method. A sequential bilingual student with L1 Italian, L2 Swedish and L3 English in year 9 at the same school volunteered to think aloud in the languages of her choice while writing the first essay of the study (the national test from 2009). As the previous research (Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; van Weijen et al. 2009; Wang & Wen 2002) referred to in this thesis included think-aloud protocols elicited from somewhat older students (aged 16 and above), it was also important to see that the method did not prove too difficult or demanding on students of this age. The pilot study showed that the student in question had no difficulties in using the method and producing an essay at the same time. She further used Italian (as well as English and Swedish) as a language of thought despite knowing that this was not a language that I as a researcher could comprehend.

The six volunteers participating in Study 3 were asked to write four essays in English, the first three of which were under different think-aloud conditions. To do this, I met with each participant individually four times. The first time a short training session was held on thinking-aloud on the subject of their hobbies. Special care was taken to make sure the students did not try to explain their thoughts, as this would add to the difficulty of the task (Ericsson & Simon 1980). Once I was certain the participants had mastered the think-aloud technique, they were asked to write the first essay while thinking aloud. While the participants were writing the essays, I was sitting on the other side of a wall in an adjacent room ready to employ a digital beeping sound if the participant forgot to verbalize his/her thoughts. This sound was never employed for any of the participants as they all verbalized their thoughts continuously. During the writing session, the participants

were audio-recorded using a small Dictaphone. A video camera was aimed at the sheet of paper the participant was writing on, thereby recording the hand movements as they were writing their essays.

For the first essay the participants were asked to think aloud in the language(s) of their choice, thus enabling them to switch freely between the languages they know. The participants were informed that they did not have to limit their language choices to languages that I as a researcher know, but could choose freely among all the languages in their repertoire. Since this had proven to work well in the pilot study, I do not believe my presence on the other side of the wall affected their language choice for this first essay.

While writing the second essay, they were asked to think aloud in English only, and in the third they were asked to think aloud in Swedish only. All three TAPs were audio-recorded and the hand movements on paper of the individual participant were simultaneously video-recorded. The fourth and final essay they were asked to write without thinking aloud just as they would write normally in order to control for the dual task of the think-aloud procedure. For this essay, the participants were left alone to write, without being recorded by either Dictaphone or video camera. The fourth essay was instead followed by a retrospective interview immediately after they had finished writing.

#### *3.1.2.4 The essay prompts*

The essay prompts that were employed in this study were from past national tests from the years 2004, 2007, 2008 and 2009. These are tests that have been made publicly available and that are often used for practice before the annual tests are administered. Before data collection commenced, I therefore made sure that these particular tests had not been and would not be used by their teachers before the national test that took place that year (2013). Following my dialogue with them, the English teachers at the school agreed to use an alternative set of tests as practice material instead.

The essay prompts that were used in this study are similar in that they may all be considered 'recounts' (Gibbons 1991). A recount is a narrative text including specific people and events, but has a personal element to it (Gibbons 1991). The prompts all ask for the student's personal experiences in some shape or form, which is consistent with the notion that writing will be more successful if the student has something to write about (Strömquist 2007).

The essay prompt used in the first essay was used in the 2009 test. The prompt is entitled "Crossroads" and entails writing about choices the writer has made or will be making. It gives the writer support in the shape of bullets with different possible writing topics, such as studies or work, place of residence, family and friends, spare time activities and, finally, politics, religion and the environment.



The writer is further supported by three leading questions all in English, which were: *What/who inspires or influences you?*, *What alternatives are there?* and *What are the consequences?*

The prompts used for the second and third essays, which will not be analyzed in this thesis, were used in the national test from 2008 which were entitled “Proud of...” and the national test from 2007 entitled “Making Things Better”.

The fourth and final essay the participants were asked to write was entitled “One Moment In Time” and was used in the test in schools in 2004. This test prompted the participants to write about a special moment either in their own life or in someone else’s life. All the participants chose to write about matters of a personal nature.

### **3.1. 3 The retrospective interview**

In order to gain further qualitative data and to address research question 3, the students were asked to remain after the fourth essay was written for a retrospective interview<sup>12</sup>, also known as a stimulated recall (Gass & Mackey 2000), about their writing processes. The stimulated recall method has been criticized as participants may sometimes experience memory decay (Cohen 1987). However, another source suggests that memory decay will start between three hours and three days after the event and that recalls within 48 hours are 95% accurate (Bloom 1954), which would mean that the responses to the questions regarding the fourth and final essay were posed before memory decay took place. The approach is valued as it is said to call participants’ attention to specific events in the process that have been undertaken, such as decisions made or problems solved (Gass & Mackey 2000).

The interview was conducted partly to gain insight into which languages the participants were using as languages of thought during the fourth essay without thinking aloud and to triangulate the data obtained in the questionnaire and the think-aloud protocols. It was also an opportunity to collect qualitative data of the participants’ language background regarding domains of use of their previously learned languages and language dominance. During this interview, all four essays were laid out on the table in front of the participant so that he/she would have the

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<sup>12</sup> By retrospective interview is meant the stimulated recall methodology that uses a stimulus to remind the participant of what they were thinking during a task or event in order to access information regarding those mental processes (Gass & Mackey 2000:17).

opportunity to look through the texts while answering the questions. This is what is known as the ‘stimulus’ in stimulated recall interviews, i.e. the four essays were made available to the participants in order to trigger their memory of their writing process. An interview guide was designed based on guidelines provided in Kvale & Brinkmann (2009). The guide was used to make sure that vital information was covered such as the participant’s background information (age, place of birth, L1 etc), the writing process with regard to the five composing activities as developed by Wang and Wen (2002), the method of thinking aloud and the four writing prompts used (The national tests from 2009, 2008, 2007 and 2004) as well as the participants’ view on whether switching languages of thought during the writing process was helpful to them. The interview method further allowed follow-up questions to be asked when the participants’ answers needed clarification, thereby creating opportunity for rich data to be obtained. The interviews took between 14 and 26 minutes, were audio-recorded and then transcribed.

### 3.3 Participants

#### 3.3.1 Study 1

For the first part of the study, which involves the questionnaire data, all year-9 students at a secondary school in an urban area in the south of Sweden were invited to participate. Out of the 146 students that were present on the day of the data collection, 131 eventually remained as students who did not wish to participate (N=6) were taken out along with a few students whose questionnaire responses were incomplete<sup>13</sup> (N=9).

**Table 1. Participants of Study 1.**

Study 1: questionnaire	L1 Swedish	Simultaneous L1s	Other L1 (Swedish L2)	Total
Number of participants	82	17	32	131

These 131 students spread over six different classes in the school and were all 15 to 16 years old. On the basis of their language background, the students were divided into three different groups (see Table 1 above) for the analysis of the

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<sup>13</sup> The incomplete answers all relate to questions that were fundamental to the study such as place of birth, age or L1.

questionnaire: Swedish L1, Simultaneous L1s and Other L1. This division was modeled after the report released in 2010 by the Swedish Schools Inspectorate, which grouped students according to the L1 of the caregivers. The first group, ‘Swedish L1’, consisted of students who were exposed to Swedish only from their caregivers during early childhood. The ‘Simultaneous L1s’ group had been exposed to two L1s from birth as they all had one Swedish-speaking parent. The L1 other than Swedish for these students were one of the following languages: Arabic, Bosnian, Danish, German, Hungarian, Macedonian, Mandarin, Polish, Serbian and Spanish. The final group was the ‘Other L1’, who were exposed to an L1 other than Swedish from birth since neither of their parents spoke Swedish. The other L1s include: Albanian, Arabic, Bosnian, French, Hungarian, Italian, Kurdish, Serbian, Taiwanese, Thai and Vietnamese. They were either born in Sweden (N=20), acquiring Swedish when they started daycare, or abroad (N=12), acquiring Swedish upon arrival in Sweden through either daycare or school. In the latter two groups, 71 and 75% respectively received mother-tongue instruction at the school at the time of data collection.

### 3.3.2 Study 2

Out of the 131 students to participate in the questionnaire study reported in Study 1, 37 were extracted for Study 2, which focused on students with a L1 other than Swedish. These 37 participants were selected for a separate study, as they all qualified for and received mother-tongue instruction, i.e. a mother-tongue other than Swedish. As 31 of the 37 participants were born in Sweden and had attended Swedish daycare before the age of 3, these participants were categorized as simultaneous bilinguals, having been exposed to two languages within the first three years of life, commonly referred to as a cut-off point for when a language is considered an L1 versus an L2 (McLaughlin 1984). Some of the participants that were not considered simultaneous bilinguals in Study 1 were therefore reclassified as simultaneous bilinguals in Study 2. In Study 1, criteria used by the Swedish Schools Inspectorate (2010) was used, whereas in Study 2 the age criterion (McLaughlin 1984) was used instead. The 31 simultaneous bilinguals had Swedish and an additional mother tongue as L1s and English as L2. The remaining six participants were categorized as sequential bilinguals, as they were exposed to Swedish only after the age of 3. Swedish is their L2 and English is their L3.

**Table 2. Participants of Study 2.**

Study 2: questionnaire	Simultaneous bilinguals	Sequential bilinguals	Total
Number of participants	31	6	37

### 3.3.3 Study 3

In Study 3, six participants from the original 131 questionnaire participants of Study 1 were recruited on the basis of their language background. Two had been exposed to Swedish only in early childhood. Swedish is their L1 and English is their L2. Four had been exposed to Swedish and either Bosnian or Macedonian before the age of 3. Their L1s are therefore Swedish and Bosnian or Macedonian and English is their L2. These six participants had grades well above the pass level in English with grades from the previous semester ranging from C to A<sup>14</sup>. They were all studying a minimum of three languages at the school: Swedish<sup>15</sup> (all six participants), English as L2 (all six participants), the other L1 (all four simultaneous bilinguals), German as L3 (five participants) and Spanish as L3 (two participants). The six participants were given fictitious names starting with the letter corresponding to one of their L1s, i.e. the simultaneous bilinguals of Bosnian and Swedish were given typical Bosnian names starting with the letter B, while the participants with Swedish L1 were given typical Swedish names starting with the letter S and so on.

**Table 3. Participants of Study 3**

Study 3: TAPs and interview data	Swedish and Slavic language background				Swedish language background		Total
	Bosnian/Swedish		Macedonian/Swedish				
Participants	Belma	Benjamin	Maja	Marko	Sara	Sofie	6

## 3.4 Ethical considerations

The present study adheres to guidelines from the Swedish Research Council (2011). Caregivers were informed in writing of the study prior to data collection. Participants gave their consent by ticking a box in the questionnaire and by signing a consent form for the think-aloud data collection and retrospective interview.

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<sup>14</sup> The grading system is a scale from A to F, with A representing the top grade and F representing a fail.

<sup>15</sup> Swedish and English are allocated the same number of teaching hours per week in compulsory school, but whereas English is taught as a foreign language, Swedish classes focus more on literature, grammar and on literacy development in different genres of writing etc.

Participants were informed that their identities would not be revealed and that they could withdraw their consent to participate at any time.

As the participants of the study are under age (aged 15 to 16) and as questions were asked both in the questionnaire and interview regarding their grades and countries of origin, an application was submitted to The Regional Ethical Review Board in Lund, Sweden, for approval before data collection began. The ethical board approved the study with two requirements, which included storing the completed questionnaires and written essays in a separate safe and the digital data (transcriptions, coding, audio and video recordings) on external hard drives.

## 3.5 Overview of the studies

### 3.5.1 Study 1 (Gunnarsson et al. 2015)

The first study involves the analysis of the questionnaire data in which 131 students in year 9 participated. The aim was to investigate which of their languages the participants reported to draw on as languages of thought while writing an essay in English and whether the participants reported the use of different languages for different composing activities identified in the Wang and Wen model (Wang & Wen 2002).

For this study, the participants were divided into three different groups depending on their language background and the language background of the parents: 82 of the participants were exposed to Swedish only since birth; 17 participants were exposed to Swedish and one other language since birth; 32 were exposed to a language other than Swedish from birth and encountered Swedish either at daycare or on moving to Sweden (neither parent spoke Swedish at the time). The three groups were named 'L1 Swedish', 'Simultaneous L1s' and 'Other L1'.

The research questions addressed in this first study were: a) Which of their languages do the participants report drawing on as languages of thought while writing an essay in English? and b) Do they report activating different languages for different activities (i.e. the five composing activities identified in the Wang & Wen model) during the writing process?

The results of the study show that 92% of all participants reported using Swedish at one point or another during the writing process. English is the second-most employed language according to the participants' answers (72%). More students (28 to 59%) reported thinking in English at the text-generating stage. The results further suggest individual differences as some of the participants in the

Simultaneous L1s group (18%) and Other L1 group (25%) reported activating the L1 other than Swedish, whereas others did not. Despite frequent reporting of the use of the L1 other than Swedish outside of school, they report infrequent use of the other L1 as a language of thought when writing in English.

A noteworthy result is the finding that the L1 Swedish group (N=82) more often report to transition to thinking in English while *text-generating*, than the Other L1 (N=32), who more frequently reported that they continue thinking in Swedish while *text-generating*. The background data collected in the questionnaire also showed that the L1 Swedish participants reported using English more in their social networks and also as a language of thought in other circumstances of their lives, such as when dreaming, exercising, studying, calculating or memorizing a phone number. The questionnaire data show that this is not the case for the majority of the Other L1 participants, who use their L1 more in their social networks and as a language of inner thought for the above-mentioned activities.

Three participants report using all three languages as languages of thought, while 22% (N=29) report using Swedish only and 5% (N=7) say that they use English only as a language of thought. The majority, however, report using two languages (70%) out of whom 6% (N=8) used Swedish and the other L1. The frequent use of Swedish reported is contributed to the factors of *recency* and of *proficiency* (Hammarberg in press), as it is the majority language used in the community around them and the base language at the school (i.e. *recency*) as well as a language all participants know very well (i.e. *proficiency*).

### **3.5.2 Study 2 (Gunnarsson & Källkvist in press)**

The purpose of Study 2 was to focus on students who are active users of three languages in school (Swedish, the other L1 and English) and to disseminate the results in a Swedish version. The study focuses on 37 of the questionnaire participants, who all attended mother-tongue instruction at the school in question.

It addresses the following research questions: 1) How many of the participants report thinking in Swedish, their other L1 and English while writing an essay in English? and 2) Are the language/s of thought connected to different stages of the writing process (as identified in the Wang and Wen model)?

The results for research question one show that all 6 (100 %) sequential bilingual participants report using their L2 (Swedish) at some point in their writing process in English, while 50 % (N=3) use the L1 (in this case Bosnian, Italian and Polish) and 67% (N=4) use the L3 (English) as languages of thought. In comparison, the simultaneous bilingual participants show a similar pattern of 94 % (N=29) stating

that they use their L1 (Swedish), 61 % (N=19) using the L2 (English) and 23 % (N=7) using the L1 other than Swedish as a language of thought.

The results show the participants reporting using primarily Swedish and English as languages of thought while writing in English. The participants that report the use of the L1 other than Swedish are few in number. The 3 participants that report the greatest use of the other L1 were exposed to Swedish only after the age of 3, possibly indicating that they are dominant in their L1s (Bosnian, Italian, Polish). This result suggests that for students who were exposed to Swedish only after the age of 3, their L1 can serve as an important tool for thought when completing complex school tasks that require them to think to themselves. The results of the study can be explained by the theory of language mode, in that Swedish tends to be used because it is the majority language and the language of instruction, i.e. the base language at school. Also, the school subject Swedish is allocated more teaching hours than the mother-tongue instruction and it is a language that they report to be highly proficient in in the questionnaire. The L1 other than Swedish on the other hand, is mostly used in non-academic settings, in the home, with relatives and while spending time in the country of origin.

### **3.5.3 Study 3 (Gunnarsson, submitted)**

The purpose of the third study was to gain qualitative data and to focus on individual differences among students that teachers in Swedish schools typically encounter in one and the same classroom, i.e. students with a Swedish language background as well as students with an additional language background. While a few studies have observed individual differences in the past (Murphy & Roca de Larios 2010; van Weijen et al. 2009), none have used the method of retrospective interviews in order to further understand the reasons behind these differences. In this study, data was gathered through the use of think-aloud sessions during essay writing and retrospective interviews. Triangulation is achieved through the use of questionnaire, think-aloud and interview data gathered for all six individuals.

Out of the six participants in Study 3, four are simultaneous bilinguals having been exposed to Swedish and either Bosnian (two participants) or Macedonian (two participants) from birth and learning English (L2) in school. The remaining two participants were exposed to Swedish only in early childhood and started studying English (L2) in school. In this study, think-aloud data where the participants were prompted to think in the language(s) of their choice while writing an essay was used combined with retrospective interview data collected once they had written all essays under four different conditions.

The study addressed the following research questions: a) which of their languages do the six participants use when thinking aloud while writing a recount in

English?, b) what functions do the different languages have while the participants are composing a text in English? and c) to what extent do students feel helped by using other previously learned languages while writing?

The results of the think-aloud data show English as the most frequently used language of thought for 5 of the 6 participants, while one participant made more frequent use of Swedish. The L1s other than Swedish were only used by one out of the four simultaneous bilinguals (Bosnian) and only to the extent of 8.5% out of the total number of words used in her think-aloud protocol. The majority of the protocol was dedicated to the activity of *text-generating* (43.5 % to 90.7% of the total number of words) for all six participants, whereas *idea-organizing* and *process-controlling* were hardly engaged in at all (0% - 5% of the total number of words).

English was shown to be the frequent language used for *task-examining* for all except one participant, who read out the prompt for the think-aloud procedure (see Attachment 1) which was in Swedish. English was also the most frequently used language while *text-generating* for all but one participant, who used more Swedish to metacomment on her text. In contrast, five of the six participants employed their L1(s) more when *idea-generating*, except for one participant who used English for this composing activity. Although *process-controlling* and *idea-organizing* were hardly engaged in, the language the participants tended to employ for these activities was Swedish. The other L1 was only used by one out of the four simultaneous bilingual participants, and when it was, it was mainly for generating context-specific ideas, as in thinking about a wedding that took place in Bosnia, her country of origin.

Results showed that all of the participants spent considerable time writing or reading their text. This was done exclusively in English. When engaging in creative thought, however, four of the participants did so in Swedish. One participant alternated between Swedish and English, whereas one used English throughout his think-aloud session. One 'high' user of Swedish, wrote quite a bit of text by back translating, translating from Swedish to English and sometimes back again in order to compose sentences on paper. One 'high' user of English, on the other hand, had more rehearsals in his TAP, which meant that he tried out different English words and phrases before settling to write. Metacomments and metamarkers in Swedish were used on several occasions in order to solve problems in the writing and two of the participants specifically stated that they had lexical gaps in English.

The participant that employs English the most as a language of thought is also one of the participants with the highest grade (B) in English. He also received the highest marks out of the total six participants on his four essays (the essays were graded individually by two experienced teachers of English). In the think-aloud



data, he uses English as a language of thought to the extent of 99%, suggesting that there is a connection between his level of written proficiency in English and his ability to use English as a base language when thinking to himself throughout the writing process.

When asked in the interview if switching between languages was helpful during the writing process in English, all six responded that they find it helpful. While one of the participants gave a short reply to this question, the other five elaborated more in their answers, one of which included being able to have a discussion with yourself in the background language, in this case Swedish. Five of the participants specified that switching to Swedish aids them with lexical gaps in English, while two of the simultaneous bilinguals state that both background languages, in this case both Swedish and Macedonian or Swedish and Bosnian, are employed when they are facing lexical gaps.

## 4. Discussion

### 4.1 RQ 1: Which of their languages do year-9 students draw on as languages of thought while writing an essay in English?

The results of Studies 1-3 above show the prominent role of Swedish, as 92% report to use Swedish as a language of thought while writing in English in the questionnaire. Swedish is also present in all think-aloud protocols by all six participants in Study 3, albeit to varying degrees. The prominent role of Swedish can be explained by the fact that it is the dominant language for the majority of the questionnaire participants as well as all six participants in the think-aloud and retrospective interview part of the study. Swedish is also the medium of instruction at the school and the school subject where essay writing is explicitly taught. Swedish is therefore a language the participants have employed recently as well as a language they are proficient in. Although the L1 other than Swedish is reported to be used daily by the participants of the Simultaneous L1s and the Other L1 groups in the questionnaire, it is only reported to be employed as a language of thought by 11 participants (8%) in total when writing in English. In the questionnaire studies (Studies 1 and 2), the participants that reported using their L1 other than Swedish as a language of thought had all been exposed to Swedish only after the age of 3, suggesting that their L1 is their dominant language. The L1 other than Swedish was only employed by one participant in the think-aloud protocol, and only to the extent of 8.5%. This study thus suggests that the L1 other than Swedish is drawn on to a limited extent even though it is used on a daily basis. This result is different from that of Tullock & Fernández-Villanueva (2013), where a language used on a daily basis was also used as a language of thought.

## 4.2 RQ 2: Are different languages used for specific purposes during the writing process?

The questionnaire and think-aloud data show that English is used by the majority of the participants when they are engaged in text-generating. Swedish, on the other hand, is used as the language of thought for idea-generating, process-controlling and idea-organizing. The questionnaire, think-aloud and retrospective interview data show that other L1s than Swedish are used to a limited extent as languages of thought. Participants who report the greatest use of the other L1s were exposed to Swedish only after the age of 3. The TAP data showed that the other L1 was used for context-specific idea-generation. The retrospective interview data further revealed that some participants draw on their other L1 when performing lexical searches.

This study has thus shown that the L1(s) tend to be relied on for idea-generating, while the L2 English tends to be used to task-examine and text-generate. This agrees with previous research in which idea-generating was also shown to be L1 dominant, whereas task-examining and text-generating was L2 dominant (van Weijen et al. 2009; Wang & Wen 2002). The activities of *process-controlling* and *idea-organizing* were hardly engaged in in the think-aloud protocol, which is in line with previous research (van Weijen et al. 2009; Wang & Wen 2002). Instead, the participants in the think-aloud protocol produce their texts in one steady flow, much like the unrolling of a ball of yarn described by Strömquist (2007). As in the study of Wang and Wen (2002), the participants in this study all employed their L1(s), although the extent to which it was employed varied. In the questionnaire study, the majority of the participants reported that they transitioned to thinking in English when *text-generating*, which was confirmed in the think-aloud protocol. However, there were a few students who continued to report the use of Swedish even at the *text-generating* stage, which was also shown to be true for one participant in particular (Sofie) in the think-aloud protocol.

Although English was the most frequent language used for thinking in the think-aloud protocol, it was mainly employed for reading the prompt and the text the participants themselves were producing for five out of six participants (between 31 and 68% of the total number of words in the protocols were read in English). The participants that used English more for verbalizing their thoughts and metacommenting in the think-aloud data, all consider English to be an important language, which was conveyed by the participants in the retrospective interview. The two participants (Marko and Sara), who spent more time actually thinking in English (rather than reading) in the think-aloud protocol, had higher grades on their essays, suggesting that there is a connection between using English as a base language for thinking and written proficiency in English, which is consistent with

previous research (DiCamilla & Antón 2012; Wang & Wen 2002). As Manchón (2013) suggests, there appears to be an L1 use continuum where less proficient learners rely more on the use of the L1 when writing in L2 than do more proficient learners. This is supported by yet another kind of study in which the focus was on students thinking aloud during collaborative writing, in which a correlation between proficiency and L1 use was found (DiCamilla & Antón 2012). What can also be seen in the data is the matter of ease with which the multilingual participants switch between languages, mixing two and sometimes three (one participant while thinking aloud and several self-reported in the questionnaire) languages in one and the same utterance. The use of the background languages as a resource when solving lexical problems in the target language has been found in several different studies (Cenoz & Gorter 2011; Jessner 2006; Murphy & Roca de Larios 2010). In the present study, five out of six participants specifically refer to the benefits of switching languages when searching for good lexical candidates, and two participants performed such searches while thinking aloud.

### 4.3 RQ 3: Do students feel helped by employing previously learned languages when writing an essay in English?

The retrospective interview data reported in Study 3, reveal that all six participants find switching between languages helpful during the writing process, specifically for solving lexical problems. One participant explains that it would be impossible to have a conversation with yourself in English about a word you do not know in English, suggesting that the previously learned languages play a crucial role in the problem-solving stages of writing. This is in line with results from DiCamilla and Antón (2012), who found that students who used their L1 in collaborative dialogue did so because of a lower proficiency in the L2. The L1 was therefore shown to be a valuable resource without which they would not have been able to complete the task (DiCamilla & Antón 2012).

### 4.4 The results discussed against the theory of language mode

The results presented in this thesis can be explained by the theory of language mode. As the complementarity principle suggests, multilingual students tend to use different languages (and perhaps language combinations) for different

communicative purposes. In the home, the base language may be the L1 other than Swedish (depending on who the interlocutor is) or the L1 Swedish for the four simultaneous bilinguals in the think-aloud data. At school, the base language during class and for communication with other students and school staff is Swedish with the exception of foreign language classes, for example German, where target language use is advocated. Swedish is the subject in which the students receive instructions specifically on how to write an essay. Previous research (Cenoz & Gorter 2011) has shown that students transfer the ability to write from one language to another. My data suggests that the base language for five of the six participants in the TAP study is Swedish, as Swedish is the language that governs the actual writing process. When the students start the pre-writing stage, i.e. *task-examining*, *idea-generating* and *idea-organizing*, they are talking to themselves, and they may therefore choose any language they know as the base language. When it is time to start *text-generating* the interlocutor is the teacher who will mark and grade the text and the students are aware that the English teacher will only accept a text in English. However, the base language is still Swedish for five out of six participants, as this is the language that is used to solve problems and to monitor the content that is produced in English.

Based on the data collected in Study 3, it is difficult to say anything regarding the second aspect of language mode, i.e. the comparative level of activation of the base language and the guest language, as the methods used do not measure language activation per say. However, it appears that Marko is close to being in a monolingual mode as he uses English almost exclusively in his think-aloud protocol, only employing Swedish for a total of 8 words (1%) out of 1355. Sara is the only participant who generates ideas entirely in English as well as Swedish. It seems, therefore, that she switches between using Swedish and English as base languages. The other four participants appear to use Swedish as the base language and English as the guest language, with English being activated to different degrees. Sofie, for example, uses more Swedish than English in her think-aloud protocol. She uses less English than Belma, Benjamin and Maja. Belma is the only participant thinking aloud in her other L1 Bosnian, making her language mode continuum the most complex as three languages are involved.

My further elaboration of the text-generating composing activity revealed that four of the participants use English only when reading aloud and writing. For all other purposes they use their L1(s), predominantly Swedish. Two participants use English also to verbalize their creative thought. This may be explained by these two participants' higher grades on their essays: they are more proficient in English and therefore able to use English naturally as the base language for all thought processes during writing. This finding is in line with previous research in which an L1 continuum has been found, i.e. that the L2 will be used more for thought

processes with increased proficiency (Manchón 2013; van Weijen et al. 2009; Wang & Wen 2002).

## 5. Implications for English language teaching

As the participants naturally draw on all their previously learned languages and as they all report being assisted by doing so, the present study supports a language policy in the English classroom that is inclusive not of Swedish but also of the other L1s. Indeed, the study by DiCamilla and Antón (2012) of a collaborative writing task in L2 Spanish revealed that the less proficient students may not have been able to complete the task if not for the use of the L1 to aid them.

As Lundahl (2012) suggests, conversing about metacognitive issues can be hard enough using the L1. However, students who do not have Swedish as their L1 should be allowed equal opportunity to use their L1 when completing tasks in school. This is supported by Villamil and de Guerrero, who showed in their study of L2 English learners with Spanish L1 in a collaborative writing assignment that the “the L1 was an essential tool for making meaning of text, retrieving language from memory, exploring and expanding content, guiding their action through the task and maintaining dialogue” (1996:60).

Employing the background languages when teaching can be done in multiple ways by creating task-specific instructions in which students get to practice using their background languages for different purposes, such as creating an idea-generating mind-map using any language they know before starting to compose a text in English or by allowing students to discuss the writing tasks in different languages before writing commences. The collaborative writing tasks used in the studies mentioned above (DiCamilla & Antón 2012; Villamil & de Guerrero 1996) is yet another way of letting students who share the same L1(s) discuss meaning and language use in their L1 while composing a text in English. As the present study, and previous studies (Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; Wang 2003), have found evidence of students employing their L1(s) for lexical gaps, this could be emphasized further in English class. For example the teacher can model the use of other languages in order to help students learn how to infer the meaning of unknown words. Teaching students how to employ their background languages to aid with lexical gaps in the target language would also promote the students’ plurilingual knowledge as advocated by the Common European Framework of Reference for Languages (CEFR).

Previous research as well as the results of the present study give further support for an inclusive language policy in English language teaching in Sweden. As stated by Lundahl (2012), it is important that we strive for as much target-language use in the English classroom as possible, but there is by now a substantial amount of research that has shown that the L1(s) play(s) a prominent role in the minds of many L2/L3 learners of English. Switching between different languages, or translanguaging, may therefore be encouraged, and modeled by the teacher if possible, as this may lead to increased student participation, motivation and understanding of what is being taught, as shown by previous research (Baker 2011; Creese & Blackledge 2010; Källkvist 2013a; 2013b; Lin 1999). Levine says that, “For us to deny, in our pedagogy, a role for the cognitively and socially dominant language, is to ignore a large part of the L2 learning process and the individual learner’s personal experience” (2011:5). I suggest that we not only allow the L1s, which according to Cook (1999) will be active in the language classroom whether we would like them to be or not, but use them purposefully as a valuable tool among many others to aid the learners in their acquisition of English.



## 6. Concluding remarks and suggestions for future research

Through the use of questionnaire, think-aloud data and retrospective interview data, this study has shown that using previously learned languages, and specifically Swedish, the majority language in Sweden, as languages of thought while writing in English is frequent and considered a beneficial tool for multilingual writers in year 9. Despite individual differences, the L1 has been shown to be a natural resource that students can employ during their writing process to aid them in different ways. The L1 has further been shown to be useful specifically when the students are at a loss for words, but also when idea-generating context specific ideas. As in previous research, this study gives further support for the correlation between amount of L2 use as a language of thought and level of L2 proficiency.

In future research, it may be of interest to focus on the writing processes of a larger sample of students with a non-Swedish-speaking background, specifically when *text-generating*, to see whether the lack of transition is present in on-line tasks, as it was in the questionnaire. Further, the analysis of the think-aloud data for essays 2 and 3 as well as the essays themselves will provide interesting data to examine whether or not prompting a language of thought has an effect on the thought processes and on the quality of the essays. What happens to the thought processes of Belma, Benjamin, Maja and Sofie (who used Swedish as the base language while thinking aloud) when they are prompted to think aloud in English only? On the contrary, what is the effect on the thought processes of Marko and Sara (who showed signs of using English as the base language in their think-aloud sessions) when they are prompted to think aloud in Swedish only? Moreover, are there more pauses present in the think-aloud protocol depending on the language of thought, which would suggest that they are struggling? Does the language of thought have an effect on the time needed by the participants to complete writing their essays? Last but not least, is there a measurable difference in the quality of the essays depending on the language of thought? The data collected when participants wrote essays 2 and 3 can be used to address these questions. Another area for further research would be to collect data from students who arrived in Sweden at a later age than three in order to see whether their L1, most likely their

dominant language on the basis of the age criterion, will play a more important role when writing in English. This was the case in the think-aloud pilot study I conducted of the sequential bilingual with Italian L1, Swedish L2 and English L3. She encountered Swedish only at the age of six when her family moved to Sweden.

Finally, the participants of this study show the ability of using their languages flexibly and with ease when composing their essays in English. This is an ability that can be nurtured and used to empower multilingual students in their acquisition of English.

# 7. Sammanfattning på svenska

## Flerspråkiga elever som skriver på engelska: förstaspråkens roll som tankespråk

### 1. Bakgrund

Denna studie fokuserar på flerspråkiga elever och hur de utnyttjar sina språkliga repertoarer för tankearbete då de skriver uppsats på engelska. År 2010 släppte Skolinspektionen en rapport som visade att elever med utländsk bakgrund inte når samma meritpoäng efter 9 års grundskola som elever med en svenskspråkig bakgrund. Med utländsk bakgrund menas elever som antingen är födda utomlands eller är födda i Sverige till utlandsfödda föräldrar. Skolinspektionens slutsats var att skolpersonalen inte tog tillräcklig hänsyn till dessa elevers tidigare erfarenheter och språkliga bakgrund i sin undervisning. Tholin (2012) visar i sin studie av ämnet engelska att elever med annan språkbakgrund ofta inte har samma fördelar i engelskundervisningen som elever med svenskspråkig bakgrund, då lärare tenderar att dra paralleller mellan det engelska språket och kulturen och det svenska språket och kulturen i undervisningssammanhang. Dessa elever utgör idag 23,8 % av vår totala elevpopulation i grundskolan och beräknas öka i antal de kommande åren (Skolverket 2014). Lundahl (2012) bekräftar denna enspråkiga norm med att visa på hur läromedel i engelskundervisningen oftast har sin utgångspunkt i det svenska språket, med svenska översättningar på ord och svenska förklaringar till grammatikavsnitt. Det är detta som kallas för den enspråkiga normen, d.v.s. att lärare undervisar eleverna i klassrummet som om de alla hade samma erfarenheter och språkliga bakgrund (Elliaso Magnusson 2010; Lahdenperä 1999).

Studien fokuserar vidare på elever med svenska som modersmål och hur de använder svenska som tankespråk då de skriver på engelska. Dessa elever är också på väg att bli flerspråkiga då vi i dagens skola erbjuder engelska med start någon gång mellan årskurs 1 och 4 (beroende på vilket beslut som tagit på kommunal nivå) och språkval från årskurs 6. Även om engelskämnet varit ett kärnämne sedan 1962, vet vi fortfarande lite om hur elever generellt tar sig an uppsatsuppgifter i ämnet i en svensk kontext.

En diskussion som har pågått under lång tid rör huruvida elevernas L1 har en plats i klassrummet för främmande språk. Trots att mycket forskning pekar på fördelarna med att använda tidigare inlärd språk för att stödja specifikt skrivprocessen (DiCamilla & Antón 2012; Villamil & de Guerrero 1996; Manchón 2013; Cenoz & Gorter 2011; Tullock & Fernández-Villanueva 2013) finns det många som hävdar att det endast är målspråket som ska användas på språklektionerna (Levine 2011). I Sverige har vi än så länge inte besvarat denna fråga ur ett forskningsperspektiv och vi vet i stort sett ingenting om hur flerspråkiga elever, elever som ofta talar ett minoritetsspråk, använder sina språk då de skriver på engelska (Tholin 2012). Studien är också först i sitt slag att fokusera på individuella skillnader och på att ställa frågan huruvida flerspråkiga elever själva känner sig hjälpta av att anlita sina tidigare inlärd språk. Med denna avhandling vill jag därför ge ett bidrag till forskning när det gäller just flerspråkiga elevers skrivande på engelska och även bidra till språklärares pedagogiska arbete som ska vila på beprövad erfarenhet och vetenskaplig grund.

Då tidigare forskning inom området valt att antingen förlita sig på enbart s.k. tänka-högt data (se metodavsnitt nedan) eller retrospektiv intervjudata, skiljer sig denna studie genom att den använder tre olika metoder för datainsamling. Dessa beskrivs vidare i avsnitt 3.

## 2. Syfte och frågeställningar

Syftet med studien är att undersöka hur flerspråkiga elever använder sina språkliga repertoarer för att tänka då de arbetar med en kognitivt komplex uppgift som att skriva en uppsats på ett främmande språk, engelska. Detta är en uppgift som eleverna ofta får ta sig an individuellt och som ofta tar långt tid att genomföra. För att vi ska kunna hjälpa eleverna med deras skrivprocess måste vi därför ta reda på hur det går till när eleverna lämnas själva att arbeta.

Frågorna som denna studien ämnar att besvara är: a) vilka av deras tidigare inlärd språk använder flerspråkiga elever för att tänka då de skriver en uppsats på engelska?, b) används olika språk för olika syften under skrivprocessen? och c) känner sig eleverna hjälpta av att använda tidigare inlärd språk då de skriver en uppsats på engelska?

### 3. En modell av skrivprocessen

#### 3.1 Wang och Wens modell för skrivande på L2 (2002)

I denna studie används modellen över skrivprocessen i L2 konstruerad av Wang och Wen (2002). De har i sin tur baserat sin modell på Flower och Hayes (1981) modell för skrivande i L1. Wang och Wen ändrade Flower och Hayes modell dels för att lämpa sig för skrivprocessen i L2 och dels då de ansåg den vara alltför linjär. I den nya modellen finns därför pilar som visar hur skribenten går fram och tillbaka mellan olika skrivaktiviteter samt geometrisk figur för att belysa vilka skrivaktiviteter som är L1-dominanta och vilka som är L2-dominanta.

I deras studie av 16 universitets elever med kinesiska som L1 och engelska som L2 fann de att informanterna ägnade sig åt fem olika skrivaktiviteter under uppsatsskrivandets gång: bearbetning av instruktionen, idé-generering, idé-organisering, strukturbearbetning och text-generering. Det är dessa skrivaktiviteter som har använts som grund för att analysera resultaten av denna studie.

#### 3.2 En vidareutveckling av Wang och Wens text-genereringsaktivitet

Då Wang och Wens (2002) textgenereringsaktivitet visade sig för omfattande för att kunna utgöra analys-modell för att besvara forskningsfråga 2 gjordes en vidareutveckling. I denna vidareutveckling identifierade jag åtta underkategorier till textgenereringen som eleverna ägnade sig åt då de skrev på engelska. Dessa underkategorier delades upp i tre huvudsakliga aspekter: avkodning, kodning och problemlösning. Under avkodning finns läsningen av den egna texten som huvudsaklig aktivitet. Under kodning finns skrivande och formulering. Formulering är vidare uppdelad i *back translation* och *rehearsal*. Den första hänvisar till när informanten översätter ord eller formuleringar från svenska till engelska och ibland tillbaka igen för att använda ordet eller formuleringen i texten. Den andra hänvisar till då informanten provar sig fram genom att yttra olika ord på engelska innan han/hon gör ett ordval som sedan används i texten. Den tredje aspekten rör problemlösning. Då eleverna upptäcker att något behöver ändras i texten använder de sig av s.k. metakommentarer för att kommentera vad som behöver ändras eller metamarkeringar som 'nej' eller 'vänta' för att signalera att något i texten behöver ses över. Då informanten uttalar att ett ord på engelska saknas, kategoriseras detta som ett s.k. *lexical gap*, d.v.s. att informanten inte kan komma på ordet på engelska.

## 4. Metod

För att besvara ovanstående forskningsfrågor, har data samlats in genom en triangulering av metoder: a) enkäter, b) tänka-högt-data och c) retrospektiva intervjuer. Alla tre metoder har använts för att besvara fråga 1 och 2 medan fråga 3 har besvarats med hjälp av retrospektiv intervjudata.

### 4.1 Enkäten

Enkäten skapades på basis av Dörnyei (2010) och Trost (2012). I enkäten finns 19 frågor varav en del syftar till att få veta mer om elevernas bakgrund, en annan del fokuserar på tankespråk med olika människor i elevernas närhet och i diverse aktiviteter utanför skolan, medan den sista delen fokuserar på elevernas tankespråk då de skriver på engelska.

Innan enkäten var klar för bruk, pilottestades den på en elev som fyllde i enkäten medan hon tänkte högt. Information om enkäten gick därefter ut till alla vårdnadshavare till eleverna i undersökningen. Eleverna fick information muntligen om undersökningen en vecka i förväg.

Enkäten samlades in i sex olika klasser i årskurs 9 på en och samma skola. Av de 146 enkäter som samlades in, kunde 131 ingå i undersökningen. Av de 15 som uteslöts fanns det en del som inte besvarat frågor som var väsentliga för studien, ett fåtal som inte ville delta och ytterligare ett fåtal som ännu inte fyllt 15 år.

### 4.2 Tänka-högt-data och uppsatsinstruktioner

Tänka-högt-data innebär att eleven genomför en skrivuppgift samtidigt som han/hon verbaliserar sina tankar. Metoden är omdiskuterad, men har används mycket i liknande studier. Nackdelar med metoden är att man inte kan vara säker på att det som verbaliseras är det faktiska tankearbete som sker på insidan eller att datan blir fullständig, d.v.s det är ofrånkomligt att en del information inte verbaliseras (Smagorinsky 1998). Andra forskare menar att det är den enda metoden som ger data i realtid, då andra metoder lätt kan innebära att informanten hunnit glömma viktiga delar av processen (Bowles 2010). De som förespråkar metoden menar att den inte påverkar processen i sig, medan det finns studier som pekar på att uppgiften kan ta längre tid att genomföra då informanten ska engagera sig i två uppgifter, skrivuppgiften och att tänka högt (Ericsson & Simon 1984). Samma forskare menar att processen kan störas om informanten utöver att tänka högt också ska förklara eller beskriva sina tankar.

Tänka-högt-datan som användes i denna studie är s.k. icke-metalingvistiska protokoll. Det innebär att eleverna inte skulle beskriva eller förklara sina tankar under skrivandet, utan enbart verbalisera det de tänkte. För att minimera antalet tankar som inte verbaliseras av informanten, användes en påminnelse-signal. Denna bestod av en elektronisk signal som jag kunde utnyttja i rummet bredvid då en längre paus i verbaliseringen uppstod. Denna signal behövde aldrig användas, då alla informanter verbaliserade kontinuerligt utan längre pauser.

I Studie 3 ombads de sex informanterna att skriva fyra olika uppsatser, av vilka tre var under olika tänka-högt-förhållanden. I den första uppsatsen ombads informanterna att tänka högt på valfritt språk, d.v.s. att de kunde skifta fritt mellan alla språken de kunde för att verbalisera sina tankar. I den andra uppsatsen ombads informanterna att tänka högt på engelska enbart och, i den tredje uppsatsen, på svenska enbart. Den fjärde uppsatsen skrevs utan att eleverna tänkte högt, men följdes istället av en retrospektiv intervju omedelbart efter att de skrivit färdigt.

Uppsatsinstruktioner som användes i studien bestod av fyra tidigare använda nationella prov i engelska från åren 2004, 2007, 2008 och 2009. Dessa prov är frisläppta och kan därmed användas i undervisningssyfte. Alla proven är av narrativ karaktär med inslag av personliga element, d.v.s. informanterna skulle berätta om saker som de själva varit med om eller som rör deras framtid.

Till den första uppsatsen som skrevs användes instruktionen från 2009 med titeln *Crossroads*. Den handlar om olika val som informanten hade gjort eller skulle göra. I instruktionen finns stöd i form av punkter med olika förslag på vad eleverna kan skriva om såsom 'studier och arbete', 'var man ska bo', 'familj och vänner', 'fritidsaktiviteter' och 'politik, religion och miljö'. Informanterna ombads också begrunda 'vad/vem inspirerar eller påverkar dig?', 'vilkar alternativ är där?' och 'vilka är konsekvenserna?'.

Till den andra uppsatsen användes provet från 2008 med titeln *Proud of...* och till den tredje uppsatsen användes provet från 2007 med titeln *Making Things Better*. På grund av tidsbrist har dessa uppsatser ännu inte analyserats och kommer därför inte att diskuteras i denna avhandling, utan kommer istället att ingå i en framtida studie.

Den fjärde uppsatsen utgjordes av det nationella provet från 2004 med titeln *One Moment in Time*. Denna uppsats skrev informanterna utan att tänka högt, men blev istället intervjuade direkt efter att uppsatsen lämnats in. Mer information om intervjun följer i nästa stycke.

### 4.3 Retrospektiva intervjuer

Till den retrospektiva intervjun användes en intervju-guide som skapats på basis av riktlinjer i Kvale och Brinkmann (2009). Guiden användes för att säkerställa att viktiga frågor togs upp, som exempelvis bakgrundsinformation om informanten men också information som överensstämde med enkätens frågor och som rörde de olika skrivaktiviteterna som presenterats av Wang och Wen (2002) som informanterna engagerat sig i under uppsatsskrivandet. Under intervjun låg informanternas fyra uppsatser på bordet så att de hade möjlighet att titta i texterna de hade producerat för att lättare minnas skrivprocessen.

### 4.4 Informanter

#### 4.4.1 Studie 1

Enkätundersökningen genomfördes på en och samma högstadieskola i årskurs 9. Informanterna i studien är 15-16 år gamla och tillhörde sex olika klasser på skolan. Enkäten fylldes i på ett lektionstillfälle i varje klass. Av de 146 informanter som svarat på enkäten ingick 131 i studien. Under analysen delades informanterna in i tre olika grupper beroende på deras föräldrars bakgrund: de med L1 svenska (N=82), de med simultana L1 varav ett var svenska (N=17) och de med ett annat L1 än svenska (N=32). De simultant tvåspråkiga informanterna i denna studie hade en förälder som pratade svenska, medan informanterna med ett annat L1 än svenska inte hade någon förälder som pratade svenska.

#### 4.4.2 Studie 2

För Studie 2 användes enkätsvaren för de informanter i Studie 1 som deltog i modersmålsundervisningen på skolan, vilket var totalt 37 stycken. Av dessa 37 räknades 31 som simultant tvåspråkiga, då de var födda i Sverige och hade börjat på svensk förskola före 3 års ålder. Dessa 31 hade svenska och ett annat språk som L1 och engelska som L2. De resterande sex informanterna var födda utomlands, hade ett annat L1 än svenska, svenska som L2 och engelska som L3.

#### 4.4.3 Studie 3

Till uppsatsstudien rekryterades sex elever som ingått bland de 131 informanterna i enkätstudien på basis av deras språkliga bakgrund. Två av dessa hade enbart svenska som L1, medan fyra hade en slavisk språkbakgrund och var simultant tvåspråkiga i svenska och antingen bosniska (två informanter) eller makedonska (två informanter). Informanterna var flerspråkiga då samtliga studerade ett minimum av tre språk i skolan, varav de fyra simultant tvåspråkiga informanterna alla deltog i modersmålsundervisningen (bosniska respektive makedonska). Samtliga hade engelska som L2.



Informanterna fick fiktiva namn i studien som motsvarar den första bokstaven i ett av deras L1. De två informanterna som hade enbart svenska som L1 fick därför typiskt svenska namn som börjar på bokstaven S (Sara och Sofie), medan de som hade bosniska som ett av sina L1 fick typiska bosniska namn som börjar på bokstaven B (Belma och Benjamin). De med makedonska som sitt ena L1 fick typiska makedonska namn med början på bokstaven M (Maja och Marko).

## 5. Resultat

### 5.1 Studie 1

Resultaten för Studie 1 visar att en övervägande mängd informanter rapporterar att de använder svenska som tankespråk någon gång under skrivprocessen i engelska (92%). Engelska var det näst mest rapporterade tankespråket (72%), medan L1 annat än svenska var mindre förekommande (18-25%). Studien visar på skillnader mellan de simultant tvåspråkiga informanterna och informanterna med L1 annat då 18% av de simultana rapporterade användningen av sitt L1 annat än svenska någon gång under skrivprocessen och 25% av informanterna i gruppen med annat L1 rapporterade att de använde sitt L1.

Analysen av enkäten visade vidare att majoriteten med L1 svenska rapporterade att de bytte tankespråk till engelska då det var dags för text-generering, medan så inte var fallet i samma utsträckning för gruppen med L1 annat. Majoriteten av dessa informanter rapporterade att de fortsatte att tänka på svenska även under text-genereringen på engelska. Bakgrundsinformationen i enkäten visade att gruppen med L1 svenska tenderade att använda engelska mer på sin fritid med olika människor och för att tänka i olika aktiviteter (såsom medan de tränade, memorerade telefonnummer, drömde, studerade eller räknade) medan detta inte var fallet för gruppen med L1 annat. De sistnämnda tenderade att använda sitt L1 mer som tankespråk i samma kontexter.

Majoriteten (70%) av samtliga informanter rapporterade att de tänkte på två språk medan de skrev på engelska varav 6% skrev att de tänkte på svenska och ett annat L1.

## 5.2 Studie 2

Resultaten för Studie 2 visar att samtliga sekventiellt flerspråkiga informanter (N=6) rapporterar användningen av svenska som tankespråk någon gång under skrivprocessen i engelska, medan 94% (N=29) rapporterar svenska som tankespråk av de simultant tvåspråkiga informanterna (N=31). Av de sekventiellt flerspråkiga rapporterar fyra (67%) att de använder tankespråket engelska medan 19 (61%) rapporterar tankespråket engelska av de simultana. L1 annat än svenska rapporteras användas av hälften av de sekventiellt flerspråkiga (N=3) medan sju elever (23%) rapporterar detsamma av de simultana.

De tre sekventiellt flerspråkiga informanterna som rapporterade mest bruk av sitt L1 som tankespråk lärde sig svenska först efter 3 års ålder, vilket tyder på att deras L1 är det starkare språket.

## 5.3 Studie 3

Resultaten av uppsatsstudien visar engelska som det vanligaste tankespråket i tänka-högt-datan för fem av sex informanter, medan en informant använde mer svenska än engelska. L1 annat än svenska användes endast av en informant och utgjorde endast 8,5% av det totala antalet ord.

Alla sex informanter ägnade sig mest åt text-genereringsaktiviteten (43,5 – 90,7%), medan idé-organisering och strukturbearbetning var näst intill obefintliga (0-5% av det totala antalet ord). Engelska var det språket som användes mest för att tänka när instruktionen bearbetades av alla utom en informant, som läste upp instruktionen för tänka-högt metoden på svenska. Engelska var också det språk som förekom mest i text-generering för alla utom en informant som använde mer svenska än engelska för att kommentera sin text. För idé-generering användes svenska mest som tankespråk för fem av sex informanter, då den sjätte använde engelska överlag med undantag av ett fåtal ord på svenska. Trots att strukturbearbetning och idé-organisering inte förekom särskilt ofta, tenderade svenska att vara tankespråket för dessa aktiviteter. L1 annat än svenska, i detta fallet bosniska, förekom bara hos en informant. Det användes huvudsakligen till att generera kontext-specifika idéer bestående av minnen som informanten erhållit genom sitt L1 bosniska.

Under textgenereringen ägnade många av informanterna sig åt att skriva eller att läsa sin text. Marko och Maja ägnade en stor del av denna aktiviteten åt att formulera sig, d.v.s att yttra vad de skulle skriva innan de satte pennan på pappret och skrev. Sofie, som använde mer svenska än engelska, ägnade en stor del av textgenereringen till att göra s.k. 'backtranslations', d.v.s. att hon översatte från svenska till engelska de meningar som hon ville skriva och ibland översatte

tillbaka igen till svenska för att dubbelkolla. Marko, som nästan uteslutande använde sig av engelska, spenderade mer tid på att göra s.k. 'rehearsals', där han provade sig fram med olika ord på engelska innan han till slut kände sig nöjd med sitt val. 'Metakommentarer' och 'metamarkeringar' förekom vid flera tillfällen för att lösa problem i skrivandet för alla utom Marko som bara hade två 'metamarkeringar' totalt. Två av informanterna, Benjamin och Maja, uttryckte vid tre respektive fyra tillfällen att de hade s.k. 'lexical gaps', d.v.s att de saknade ord på engelska.

Då informanterna i intervjun tillfrågades huruvida de ansåg sig hjälpta av att använda olika språk för att tänka medan de skriver på engelska var samtliga eniga om att det hjälper. Fem av sex informanter angav att de specifikt använde sina andra språk för att söka efter ord då dessa saknades på engelska. En av dessa fem uttryckte att det är omöjligt att ha en diskussion med sig själv på engelska om ett ord som man inte kan på engelska.

## 6. Slutsatser och pedagogiska implikationer

Studie 1 till 3 ovan visar att svenskan har en framstående roll i tankearbetet som utförs då elever skriver på engelska. Det andra mest rapporterade språket i både Studie 1 och 2 är engelska, medan L1 annat än svenska kommer på en tredje plats. Tidigare studier som visat att språk som används dagligen tenderar att användas som tankespråk också när man skriver på främmande språk (Tulloch & Fernández-Villanueva 2013) verkar således inte stämma i just denna kontexten, där majoritetsspråket och skolspråket svenska har en mycket mer framträdande roll. I Studie 3 användes L1 annat än svenska, bosniska, enbart av en informant och endast till 8,5% av det totala antalet ord.

I Studie 1 rapporterar majoriteten av informanterna i alla tre grupper (L1 Svenska, Simultana L1 och L1 annat) att de använder svenska för att bearbeta instruktionen, generera idéer och organisera dessa för innehållet och för att bearbeta strukturen i uppsatsen. När det gäller textgenereringen skiljer sig grupperna åt i sin rapportering då majoriteten av informanterna med L1 svenska går över till att tänka på engelska, medan de simultant tvåspråkiga informanterna är delade, d.v.s ungefär hälften säger sig välja att byta tankespråk till engelska medan hälften väljer att fortsätta att tänka på svenska. Majoriteten av informanterna med annat L1 rapporterar att de fortsätter att använda svenska som tankespråk även då de skriver på engelska.

I Studie 3 ser vi istället att engelska tenderar att användas för bearbetning av instruktionen och för text-genereringsarbetet för alla utom en av de sex i vardera

aktivitet. Svenska används istället mest för att generera idéer för innehållet och en liten del används för idé-organisering och strukturbearbetning. Dessa resultat stämmer väl med tidigare forskning där man funnit att L1 används mest för dessa skrivaktiviteter medan L2 används mer för att bearbeta instruktionen och för att generera text när det gäller mängden ord som yttras i protokollen (Wang & Wen 2002). Däremot är det fortfarande svenska som är baspråket och som kontrollerar skrivprocessen även i textgenereringsfasen för fem av sex informanter i denna studie.

I Studie 3 berättar informanterna själva att det hjälper att använda sig av andra språk, specifikt då ord saknas på engelska. Att L1 används just till avsaknaden av ord på målspråket har även visats i tidigare studier där just skrivprocessen bland flerspråkiga elever har efterforskat (Tulloch & Fernández-Villanueva 2013). Två av informanterna påpekar vidare vikten av att kunna tänka på sitt L1 (bosniska) för kontext-specifika idéer.

#### **6. 4 Pedagogiska implikationer**

Resultaten i denna studie pekar på värdet av andra språk i engelsklassrummet. Alla tre studier har visat att svenska är ett viktigt språk för många elever och att det används för att kontrollera skrivprocessen, d.v.s. svenska är baspråket för många då de skriver uppsats på engelska. Svenska används också för att lösa problem i skrivprocessen, då eleverna behöver ta ett steg tillbaka och föra en dialog med sig själva. I Studie 3 förklarar två av de simultant tvåspråkiga informanterna att deras L1, bosniska, gärna används för kontext-specifika idéer där informanterna skaffat sig minnen genom just detta språket. Det talar ytterligare för en mer tillåtande språkpolicy i språkklassrummet, där dessa flerspråkiga elever kan utnyttja sin totala språkliga repertoar för att tänka kring innehållet i det de ska skriva. Det har vidare visat sig att de tidigare inlärd språken kan hjälpa eleverna då de saknar ord på målspråket. Jag förespråkar därför att bygga vidare på denna kunskap och visa eleverna hur de kan utnyttja sina språk för att lösa problem, såsom avsaknaden av ord då de skriver på engelska. I GERS värdesätts flerspråkig kunskap (2001) och detta kan vara ett led till att aktivt använda den kunskap som flerspråkiga individer redan besitter. Denna kunskap skulle inte bara kunna hjälpa flerspråkiga elever, utan även stärka dem som individer.

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# Multilingual Students' Self-reported Use of their Language Repertoires when Writing in English

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*Recent research suggests that multilingual students tend to use their complete language repertoires, particularly their L1, when writing in a non-native language (e.g. Cenoz & Gorter 2011; Wang 2003). While there is some international research on the L2 and L3 writing process among bilinguals, the L2/L3 writing process of bilingual and multilingual individuals in the Swedish context remains unexplored. This study, carried out in a Swedish secondary school, focuses on 131 bi- and multilingual students' (age 15-16) self-reported languages of thought while writing an essay in English, which is a non-native language. Drawing on the translanguaging framework (Blackledge & Creese 2010; García 2009) and a model of the L2 writing process (Wang & Wen 2002), the questionnaire data of the present study reveal that the participants' L1 is reported to be heavily activated during the L2 writing process, particularly at the pre-writing, planning stage. Additionally, the emergent bilingual participants who grew up as monolinguals (L1 Swedish) report a greater tendency to transition to thinking in the target language (English, their L2) once they have reached the actual writing stage than some of the emergent trilingual participants who grew up as bilinguals (of Swedish and another L1, used primarily in the home). On the basis of these findings, we suggest a need to move away from the monolingual teaching practices common in Swedish schools, allowing space for students to translanguage as they are engaging with writing tasks in a non-native language.*

*Keywords:* L2 writing, L3 writing, bilingual, multilingual, translanguaging

## 1 Introduction

There is considerable interest in how multilingual individuals make use of their language repertoires when engaging in learning tasks (e.g. Cenoz & Gorter 2011; Creese & Blackledge 2010; van Weijer et al. 2009) and in the mechanisms more generally involved in L3 acquisition (Bardel & Falk 2007; Cenoz et al. 2001; Falk & Bardel 2010). Results show that multilinguals naturally draw on their entire linguistic repertoires, and in the research literature, their multilingual

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competence is now often portrayed as a resource that facilitates rather than hinders learning (e.g. Canagarajah 2011; Cenoz & Gorter 2011; Creese & Blackledge 2010; Falk & Bardel 2010; García 2009; Hornberger & Link 2012). This has led to the advancement of the concept of *translanguaging* (Blackledge & Creese 2010; Creese & Blackledge 2010; García 2009; García et al. 2012) and to an interest in the role of a learner's *background languages* in L3 acquisition and multilingual processing (Falk & Bardel 2010). The former concept, translanguaging, “stresses the flexible and meaningful actions through which bilinguals select features in their linguistic repertoire in order to communicate appropriately” (Velasco & García 2014: 7). Whereas the concept of code-switching considers two languages to be separate systems, the translanguaging framework does not view the languages of multilingual individuals as separate linguistic systems (Velasco & García 2014). In addition to occurring naturally and spontaneously, research has revealed that translanguaging can be beneficial in teaching in several respects: i) the message of the instructor may be more easily conveyed and comprehended and be more deeply processed by the students if students' background languages are drawn on and students engage in dual or multiple language processing (Baker 2006; Creese & Blackledge 2010; Cheng 2013; García et al. 2012; Williams 1994), ii) students can communicate in several languages they know in order to get their point across in the classroom (Arthur & Martin 2006; Lin & Martin 2005), iii) the development of the weaker language can be facilitated (Baker 2006); iv) home-school links and co-operation can be increased (Baker 2006); v) the integration of fluent speakers with early learners can be more easily achieved (Baker 2006); vi) increased student motivation (Lin 1999) and vii) increased student participation in teacher-led discussion (Källkvist 2013a; 2013b).

The translanguaging framework is consistent with other current conceptualizations and perspectives of multilingualism, notably *Focus on Multilingualism* (Cenoz & Gorter 2011), *Multicompetence* (Cook 1992), the *Dynamic Model of Multilingualism* (Herdina & Jessner 2002) and *Dynamic/Complex Systems Theory* (de Bot et al 2007; Larsen-Freeman & Cameron 2008, cf. Cenoz & Gorter 2011). According to these frameworks/models, knowledge of different languages is conceived of as interactive and flexible in the minds of multilingual individuals. This is also consistent with Grosjean's (2001, 2008) notion of *language mode*, according to which different languages known by a multilingual individual can have different levels of activation depending on the interlocutor and the context. In contrast to the more traditional perspective towards multilingualism, which views different languages as being separated in multilinguals' minds, “the interaction among languages” is highlighted, focusing on “the acquisition and use of second and additional languages in a social context” (Cenoz & Gorter 2011: 360). Languages are thus conceived of as being joined by soft rather than hard boundaries in the mind, attested by multilingual individuals' translanguaging practices.

Drawing on these perspectives, we focus on the 'language of thought' among bi- and multilingual 15-16-year-old students in an urban secondary school in Sweden - a context in which translanguaging patterns have previously not been studied (cf. Tholin 2012). By 'language of thought' we refer to Cohen's definition of inner speech, “that is the thinking we do in our minds that is in the form of words rather than images or symbols.” (1995:2). As noted in the literature, research on students' use of their language repertoires in writing tasks is scant (Canagarajah 2011), and research into the learning of English and other

additional languages by multilingual, migrant students in Swedish education is virtually non-existent (Tholin 2012). Moreover, essay writing is a high-stake task for these students as it figures prominently in the Swedish national test for English. In what follows we first outline the language ecology in Sweden, with particular attention to the role and distribution of languages in the school curriculum. We then review existing research on multilinguals' use of their language repertoires when writing in English, which is a non-native language to the participants. Drawing on a model of the L2 writing process, we then examine the self-reported activation of the background languages among 15-16-year old students in Sweden writing in English. Finally, we suggest implications for English-as-a-foreign language classrooms in Swedish schools.

## 2 The language ecology of Swedish education

Although Sweden has been a multilingual polity for centuries, it has traditionally portrayed itself, and has typically been perceived, as a monolingual country with the national language, Swedish, as the majority language (Hult 2004; Tholin 2012). Mandatory schooling in Sweden is nine years, beginning at age 7. Swedish is the dominant medium-of-instruction. A growing number of schools are offering immersion education in English or other languages (e.g. French or German); by law (the Swedish Education Act) such schools are permitted to offer 50% of the curriculum in another language or other languages, but the remaining 50% must be taught in Swedish. The status of Swedish was recently reinforced through the passing of the Swedish Language Act (SFS 2009:600) in 2009 which made it Sweden's "principal language" (section 4). Three school subjects have special status in Swedish mandatory education: Mathematics, Swedish and English, in that a pass grade for each of these three subjects is required for entry to (non-compulsory) upper-secondary school (ages 16-19). English has been a mandatory school subject throughout compulsory school since 1962. It is introduced either in school year 1, 2, 3 or 4, depending on decisions made at the municipal level. English is the only compulsory foreign language, but an additional foreign language is introduced as an option in year 6 (age 12), typically either French, German or Spanish. In many municipalities, a third additional language is offered as an option in year 8. At upper-secondary school, yet another additional foreign language can be chosen.

Sweden's monolingual image manifests itself in school curricula and syllabi as having "a traditional monocultural reference point" (Tholin 2012: 2), which may lead to the marginalization of students from other backgrounds (von Brömssen 2006). According to recent statistics, 20.7% of pupils in Sweden have a mother tongue other than Swedish (Swedish National Agency for Education 2012), a number which can be expected to grow in the years to come. A study by the Swedish Schools Inspectorate revealed that students with a non-Swedish background received lower grades than students with a native Swedish background (Swedish Schools Inspectorate 2010). The Inspectorate attributes this finding to teachers and other school staff insufficiently taking into account the social and language backgrounds of the non-Swedish students. Nowadays, there is a range of different, typologically unrelated mother tongues represented in Swedish classrooms. In the data which we collected in one school in an urban area in Sweden, the following L1s are represented: Albanian, Arabic, Bosnian,

Danish, German, French, Hungarian, Italian, Kurdish, Macedonian, Mandarin, Polish, Serbian, Spanish, Taiwanese, Thai and Vietnamese. This linguistic diversity poses a specific challenge to schools. Most teachers are native Swedes, and – given the range of L1s that are often represented in a classroom today – cannot be expected to translanguage with all the students in their mother tongues. Typically, the teacher will be able to translanguage through the use of Swedish and English, and the beneficial translanguage practices identified by previous research thus may aid mainly students who know Swedish well.

The languages of migrated minorities in Sweden are not totally absent in the school setting, however. Given a sufficient number of students and the availability of a teacher, Sweden offers mother-tongue tuition as an option to school pupils who are exposed to another language than Swedish by at least one care-giver and who use this language in the home on a regular basis. Typically, a teacher who is a native speaker of the language meets with small groups of students once a week for forty minutes. This provides multilingual students some opportunity to maintain and develop their home language also at school. However, as stated above, little is known about how multilingual pupils make use of their language repertoires when engaged in school work. As a preliminary, we now turn to previous research on the activation of background languages in L2 and L3 writing.

### **3 Multilinguals' use of their background languages in L2 and L3 writing**

Activation of students' background languages has been found to occur naturally when bilingual and multilingual individuals write in their L2 and other additional languages (cf. reviews in e.g. Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; van Weijen et al. 2009; Wang & Wen 2002). Existing research has focused on L2 writers' use of their L1 for a number of different purposes, including generating and organising ideas for the content and structuring of the text (Murphy & Roca de Larios 2010; Wang & Wen 2002), for controlling the writing process (Wang 2003; Wang & Wen 2002) and for solving linguistic problems such as vocabulary issues (Wang 2003). Some studies suggest that less proficient L2 learners are more likely to rely on their L1 than more proficient learners (Uzawa 1996; Wang 2003; Wang & Wen 2002) whereas other studies have shown that the L1 is resorted to regardless of proficiency level, albeit for different purposes (Murphy & Roca de Larios 2010; van Weijen et al. 2009; Wang 2003). For instance, in Wang's study (2003), the low-proficient participants used the L1 mainly to solve lexical problems whereas the more highly proficient writers used their L1 to clarify text concepts, enrich contextual information and for "shaping their discourse as a whole" (2003: 367). Such findings suggest that switching to the L1 while performing complex tasks may be a natural cognitive strategy as well as be beneficial to learners regardless of their proficiency level.

Studies of L3 acquisition and use, i.e. involving individuals who have already acquired an L1 and an L2, have mainly focused on vocabulary (Falk & Bardel 2010; Tullock & Fernández-Villanueva 2013; Cenoz et al. 2001; Cenoz & Gorter 2011) but also on syntax and, to a lesser extent, phonology (Falk & Bardel 2010). The L3 acquisition process appears to be more complex (if not necessarily more

difficult) than that of L2 acquisition because the L3 learner has more linguistic systems in the mind that may interact in multiple ways (Cenoz & Gorter 2011; Falk & Bardel 2010). The role of learners' background languages has been one focus of attention by L3 researchers, and the growing body of research has revealed that both the L1 and the L2 become activated in the L3 acquisition process (Falk & Bardel 2010). The following factors have been shown to impact on whether a particular background language is used or activated when the intention is to use a specific target language: *proficiency level* (e.g. high vs low proficiency), *typology* (e.g. typologically close vs distant) and *recency of use* (e.g. recent vs remote) and *L2 status* (i.e. the fact that a language has been learned as an L2) (Falk & Bardel 2010). Studies of the L3 writing process are relatively scant, but there are two previous studies of immediate relevance to this paper. Cenoz & Gorter (2011) studied 165 Basque/Spanish bilinguals writing in three different languages, Basque, Spanish and English, with English being their L3. The study focuses on students' general writing skills and switches between the three languages when writing on the same topic in Basque, Spanish and English. Their results, revealed by correlation analyses on scores of the essays written in each of the three languages, show that the participants apply similar general writing skills across all three languages, and that switches were multidirectional, i.e. there was transfer from L1 to L3, from L2 to L3 and from L3 to L2 and even from L3 to the L1. The most frequent direction of lexical transfer was from the L1 (Basque or Spanish) and L2 (Basque or Spanish) to L3 (English). Although lexical transfer from L3 (English) to Basque or Spanish did occur, this was an infrequent phenomenon, which Cenoz & Gorter explain by the participants' *proficiency level*, i.e. their proficiency in English being considerably lower than in Basque and Spanish, and by the *recency of use*; students use Basque and Spanish in the community, which is not the case with English.

The second study, Tullock & Fernández-Villanueva (2013), studied 10 trilingual (Spanish/Catalan/German) 16-17-year-old school students who were in a German-immersion school in Spain as they wrote an essay in English (their L4) while thinking aloud. Results of the analysis of the think-aloud protocols reveal that all three background languages were activated while the students were writing in English, but eight of the ten participants activated mainly their L1. In general, however, Spanish and German were activated more often than Catalan. Both German and Spanish have stronger status in the school; German is the medium of instruction and Spanish is used in the community and has instructional support in the school (as Spanish is a school subject) whereas Catalan is more of a non-academic language to these students. In explaining their findings, Tullock & Fernández-Villanueva draw on the factors of *recency of use* (German and Spanish being media of instruction in the school) and *proficiency level* (participants' who were native speakers of German and Spanish had lower proficiency levels in Catalan, whereas the native speakers of Catalan had higher proficiency levels in German and Spanish). In lexical searches, seven of the ten participants used 3 or 4 languages, but most lexical searches involved the participants' L1, which again can be explained by *proficiency level*.

Taken together, this previous research shows how multilingual individuals draw on their entire linguistic repertoires, both in social interaction and when engaging with learning tasks in an additional language. In the international research literature, monolingual teaching practices are being questioned and are giving way to pedagogy that recognizes students' multicompetence (cf. e.g. Canagarajah 2011; Creese & Blackledge 2010; García & Sylvan 2011; Hall & Cook

2012; Hornberger & Link 2012). In the Scandinavian setting, for example in Sweden, the number of multilingual students is steadily growing, but there is little, if any, research on multilingual, migrant students' learning of foreign languages, including English (Tholin 2012), and – as stated previously – the Swedish Schools Inspectorate has drawn attention to the fact that migrant students' linguistic resources and background are not being recognized and valued in Swedish schools. Indeed, in Sweden, monolingual teaching practices remain the norm (Tholin 2012). In this paper we suggest a shift away from the idea that languages are best learned and taught monolingually. We examine a sample of year-nine students and their self-reported use of their linguistic repertoires while engaging with an essay task in English. We focus both on emergent bilingual students who grew up in Sweden and on multilingual students, who are bilingual users of Swedish and another L1, used in the home and, for most of the participants, also at school during mother-tongue-tuition classes. As our focus is on writing in a non-native language, we now turn to considering a model of the L2 writing process, which will be used as a basis for analysing our data.

#### 4 A model of the writing process

In exploring bi- and multilingual students' use of their background language(s) when writing in English, the present study draws on the composing process model of writing in an educational context developed by Wang and Wen (2002) based on previous models of writing (esp. Flower & Hayes 1981). The model was developed on the basis of their empirical research on the L2 writing of Chinese L2 learners of English. It distinguishes five composing activities involved in the L2 writing process: *task-examining* (1), *idea-generating* (2), *idea-organising* (3), *process-controlling* (4) and *text-generating* (5).

Briefly, *task-examining* refers to the interpretation and processing of the instructions for the writing assignment provided. Although this is usually the starting-point for any writing task in an academic context, the learner may refer back to the instructions several times during the writing process to double-check on them. *Idea-generating* and *idea-organising* relate to the processes involved in, respectively, conceptualizing the content (ideas) of the text and organising the different ideas into larger message units that ultimately form a coherent text. The fourth process, *process-controlling*, refers to structuring the text, for instance wording a suitable title, paragraphing the text as well as writing an appropriate introduction and ending. The fifth and last activity, *text-generating*, concerns the stage when the student puts pencil to paper (or fingers to keys) and actually starts writing.

All the Chinese L2 learners of English in Wang and Wen's study (2002) engaged in all five thought processes, although to varying degrees. Note that the participants in Wang & Wen's study were monolingual Mandarin speakers who became bilingual in Chinese (their L1) and English (their L2) through education. In order to test Wang & Wen's model in other contexts than the one in which it was originally developed, and to more fully understand the role of, and relationship between, the various background languages in the process of writing in a non-native target language, we applied the model to analyse and compare the writing processes of emergent bilingual (Swedish, English) and

emergent trilingual (other L1, Swedish and English) learners of English as a foreign language in Sweden. We now turn to our research questions.

## 5 Research questions

The aim of the present study is to investigate the extent to which pupils report to be drawing on their entire linguistic repertoires when engaging with a writing task in English, which is a non-native language. In achieving this aim, we address two research questions:

1. Which of their languages do the participants report drawing on as languages of thought while writing an essay in English?
2. Do they report activating different languages for different activities (i.e. the five composing activities identified in the Wang & Wen model) during the writing process?

In addressing the above questions, we collected survey data in an urban secondary school from students in year nine (the final year of compulsory school). At this point in their education, there is particular focus on essay writing, as this forms part of a national test in English that is administered to all year-nine students. Below, we provide details of how the data were collected.

## 6 Method

### 6.1 Participants

The 131 participants in this study were all secondary school students in year nine at the same secondary school in an urban area in Sweden. They spread across six different classes and were all 15-16 years old. They had had classroom instruction in English as a foreign language for seven years. On the basis of the number of languages they had been exposed to in early childhood, they were divided into three groups. We refrain from dividing them into groups on the basis of language dominance, as dominance is hard to establish (cf. e.g. Baker 2006). What can be more easily established, on the other hand, is information about the age at which participants were first exposed to the different languages that they speak and how they use these languages in their social networks and as tools of inner thought.

The first group is the *Swedish L1* group (N=82), consisting of participants who were born in Sweden and had been exposed to Swedish only by their care-givers since birth and who continued to use Swedish in their home environment. The second group comprises participants whom we consider to be simultaneous bilinguals. We refer to this group as the *Simultaneous L1s* group. These participants (N=17) had been exposed to two languages since early childhood: Swedish and one of the following languages: Arabic, Bosnian, Danish, German, Hungarian, Macedonian, Mandarin, Polish, Serbian and Spanish. They were either born in Sweden or had one Swedish-speaking parent. The third group of participants (N=32) encountered Swedish somewhat later than their other L1. We refer to this group as the *Other L1* group, as they were exposed to an L1 other

than Swedish from birth since neither of their parents speak Swedish. Eleven different L1s were represented in this group: Albanian, Arabic, Bosnian, French, Hungarian, Italian, Kurdish, Serbian, Taiwanese, Thai and Vietnamese. They were first exposed to Swedish either rather early through day-care in Sweden (which is available from the age of 12 months) or when moving to Sweden, and then starting day-care (prior to age 6-7) or school (at age 6-7 or older). 22 of these participants were born in Sweden whereas 10 were born abroad. All participants in the Simultaneous L1s group and the Other L1 group used their other L1 in the home with at least one parent. The majority of them were also attending mother-tongue instruction (71% and 75% respectively).

## 6.2 *Instrument*

A questionnaire was developed and used with the dual purpose of eliciting information about participants' language backgrounds (including language use in their social networks, their self-reported proficiency in the different languages, and languages of inner thought, for example when calculating or dreaming) and the activation of the different languages they know when engaging in the task of writing an essay in English. The questionnaire was developed based on the guidelines provided in Dörnyei (2007, 2010) and Trost (2012) with regard to formulation of the questions and the order in which the questions were posed. It was written in Swedish, consisted of 19 questions and was completed during a regular lesson in school. The students were all given the same oral information prior to completing the questionnaire, i.e. informing them that the main focus of the study was to investigate their language(s) of thought while engaging in a writing task in English. In order to gauge which languages they used when writing, students were presented with the five composing activities identified by Wang & Wen (2002), which were translated into Swedish with somewhat simplified wording in order to ensure students' comprehension. They were asked to state which language(s) they use as language(s) of thought while engaging in the five different composing activities and writing in English. Even so, we acknowledge that there is no guarantee that all participants fully comprehended exactly what was meant by each of the five composing activities.

In order to elicit information about students' proficiency levels, participants were asked to list all the languages that they know and report their proficiency in each language on a scale ranging from 1 ("limited proficiency") to 4 ("very high proficiency") and indicate which language(s) they used as a language of thought when calculating, memorising a phone-number and dreaming (Marian et al., 2007). The questionnaire was piloted with one student prior to administering it to all year-nine students at the school.

When reporting their use of the different languages they know, students could tick Swedish, Albanian, Arabic, Bosnian, Macedonian, Serbian<sup>1</sup>, English and Other. If they ticked "Other", they were asked to state what language they referred to. As this study draws on the theoretical orientations of translanguaging, multicompetence and focus on multilingualism, the questionnaire allowed participants to tick more than one language for each of the five writing activities. There were also a few open-ended questions where participants could add further information should they wish to. Most of the participants completed the questionnaire within 10-15 minutes while a smaller number of students needed 20 minutes to half an hour. Author 1 was present to assist students with any queries they might have. A total of 148 questionnaires

were collected. Due to insufficient responses in a few cases, the number of questionnaires that could eventually be retained was reduced to 131.

An important priority made was to select a sample of participants who would be highly motivated and cooperative when responding to the questionnaire (cf. e.g. Codó 2008). We therefore approached a school where one of the authors was working and knew the students. While this approach is assumed to enhance validity of participants' responses (Dörnyei 2010), it restricts the participants in terms of number and the location to one school. We therefore see this study as primarily qualitative. Also, while the use of a questionnaire facilitates the collection of relatively large amounts of data in a short period of time, there is the obvious drawback of questionnaires providing self-reported information only (cf. Dörnyei 2010). For example, we do not know the extent to which students' questionnaire responses coincide with the actual use. In addition, students may provide answers that they believe are the desired responses. Also, as discussed in Grosjean (2008), the language used in a questionnaire may affect participants' answers; the language of our questionnaire was Swedish, which may have elicited more responses for Swedish than would otherwise have been the case. These limitations of questionnaires cannot be fully overcome, but we attempted to reduce them by piloting the questionnaire beforehand (to ensure that questions were written in a way that participants could understand) and by having a researcher present whom the participants knew and who explained the purpose of the questionnaire as well as answered any questions that the participants had while completing the questionnaire.

## 7 Results

### 7.1 Research question 1: students' use of their language repertoires while writing in English

Table 1 provides the results for each of the three groups, illustrating which languages the participants reported using for each of the five composing activities outlined in Wang & Wen's model. Calculations were made to reveal whether individual participants reported drawing on one of their languages only, or whether they reported using more languages than one. For example, one participant in the Simultaneous-L1s group reported using only his/her other L1 (used for *idea-organising*), whereas three participants in this group reported using both Swedish and the other L1 (i.e. ticking both Swedish and the other L1) when *task-examining*, *idea-generating* and *idea-organising*.

As illustrated in Table 1, Swedish was reported as the most commonly activated language of thought, particularly when *task-examining* and *process-controlling*. It is reported to be used on its own when *task-examining* by 66% of the Swedish-L1 participants, by 59% of the Simultaneous-L1s and by 59% of the Other-L1 participants. Among all the 131 participants, 121 (92%) report activating Swedish (either Swedish only or a combination of Swedish and one or more languages) at some stage while engaging with the essay task. English is the second most commonly reported language to be activated, and is reported to be used consistently more frequently as the only language of thought by the Swedish-L1 participants across all five composing activities. English is reported to be used on its own in particular when *text-generating* (59% of the Swedish-L1



participants, 41% of the Simultaneous-L1 participants, and 28% of the Other-L1 participants). The other L1 is reported to be used to a considerably lesser extent than Swedish and English. Three (18%) of the Simultaneous-L1s participants and 8 (25%) of the Other-L1 participants report activating their other L1, either on its own or in combination with either Swedish or English or in combination with both. A total of three participants (18%) report activating the other L1 on its own, one Simultaneous-L1s participant and two Other-L1 participants. What characterises all three of them is that they moved to Sweden after the age of 3. The participant in the Simultaneous-L1s group is a simultaneous bilingual of Polish and Swedish and moved to Sweden at the age of 4. She has one Swedish-speaking parent and one Polish-speaking parent and has been exposed to Swedish as well as Polish from birth although she encountered Swedish in the community around her only at age 4. The two participants in the Other-L1 group moved to Sweden at the age of 3 (from Bosnia) and 6 (from Italy) respectively. Neither of the two report having been exposed to Swedish prior to moving to Sweden.

Only few of the participants who encountered Swedish later than their other L1 report activating their other L1, however. In the Other-L1 group, there are a total of ten participants who were first exposed to Swedish some time between the age of 1 and 2. Two of them (20%) report activating only the other L1 (Bosnian and Italian respectively) at some stage while engaging with the essay task. Three of them (33%) report activating the other L1 in combination with Swedish (two speakers of Albanian and one of Thai). The remaining five participants (50%) report not activating their other L1 at all while engaging with the essay task.

In sum, Swedish is reported to be used as the only language of thought by the majority of the participants in all three groups. English is used as the only language of thought consistently more frequently by the Swedish-L1 participants than the Simultaneous-L1s and Other-L1 participants. The other L1 is reported to be used considerably less often.

## 7.2 Research question 2: Do students report activating different languages for different composing activities during the writing process?

Table 1 provides descriptive statistics on the number and proportion of individual participants (in each of the three groups) and the different languages and language combinations they report to use as languages of thought for each of the five composing activities distinguished in the Wang & Wen model. Results show that a) Swedish is reported to be frequently activated across all five composing activities, either on its own or in combination with other languages; b) English is reported to be activated to a lesser extent, either on its own or in combination with other languages; c) the other L1 is reported to be activated by a minority of the participants in the Simultaneous-L1s group (18%) and the Other-L1 group (25%); d) Swedish is reported to be drawn on in particular for the purposes of *task-examining* and *process-controlling*; e) English is reported to be used in particular at the *text-generating* stage by all three groups; f) during *text-generating*, English is said to be activated on its own by a greater proportion of the Swedish-L1 participants (59%) than the Other-L1 participants (28%), while the Simultaneous-L1s participants fall in-between (41%), and g)

**Table 1.** Languages reported to be activated for each of the five composing activities by the participant groups

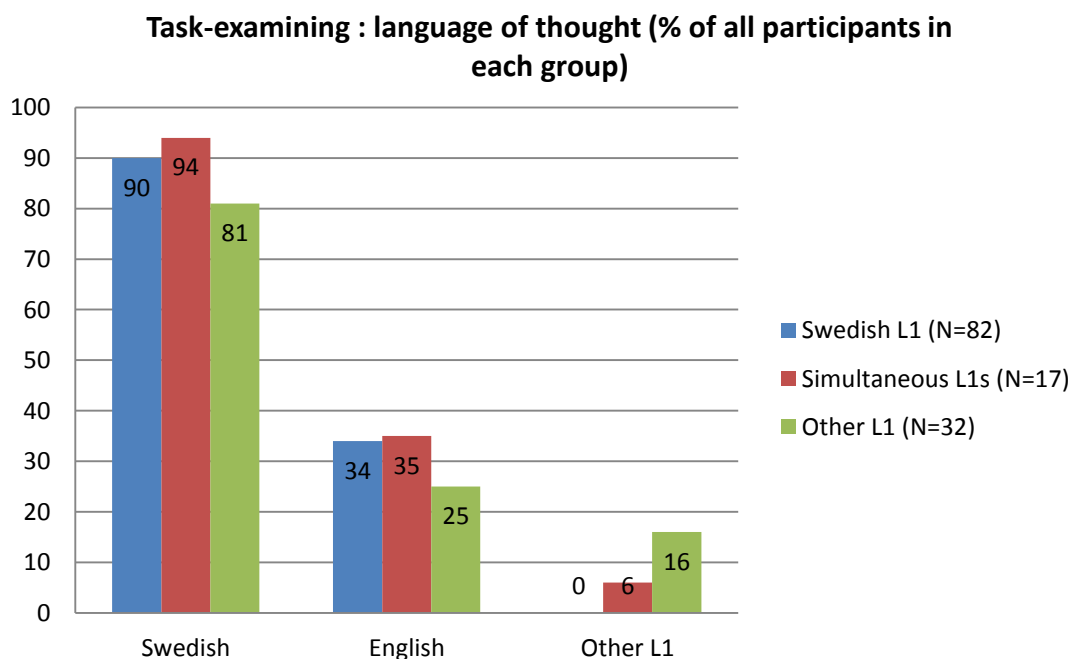
Languages of thought	Swedish L1 (N=82)					Simultaneous L1s (N=17)					Other L1 (N=32)				
	Task-examining	Idea-generating	Idea-organising	Process-controlling	Text-generating	Task-examining	Idea-generating	Idea-organising	Process-controlling	Text-generating	Task-examining	Idea-generating	Idea-organising	Process-controlling	Text-generating
Swedish	66%	41%	50%	52%	22%	59%	35%	29%	47%	41%	59%	47%	47%	59%	41%
English	10%	29%	28%	24%	59%	6%	24%	18%	24%	41%	3%	9%	13%	13%	28%
Swedish & English	24%	29%	22%	23%	18%	29%	29%	41%	29%	12%	22%	3%	22%	19%	16%
Other L1	*	-	-	-	-	0%**	0%	6%	0%	0%	0%	13%	0%	0%	3%
Swedish & Other L1	-	-	-	-	-	6%	6%	6%	0%	0%	16%	0%	16%	9%	9%
Swedish, English, OtherL1	-	-	-	-	-	0%	6%	0%	0%	6%	0%	0%	0%	0%	0%
English & Other L1	-	-	-	-	-	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No response	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	3%	0%	3%
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

\* "Other L1" is not applicable to the Swedish-L1 group as Swedish is their only L1. We indicate 'not applicable' by a dash.  
 \*\* "Other L1" is applicable to both the Simultaneous-L1s group and the Other-L1 group, as they have been exposed to another L1 (besides Swedish) since birth. "0%" means that "Other L1" was a possible option, but no participant ticked it.

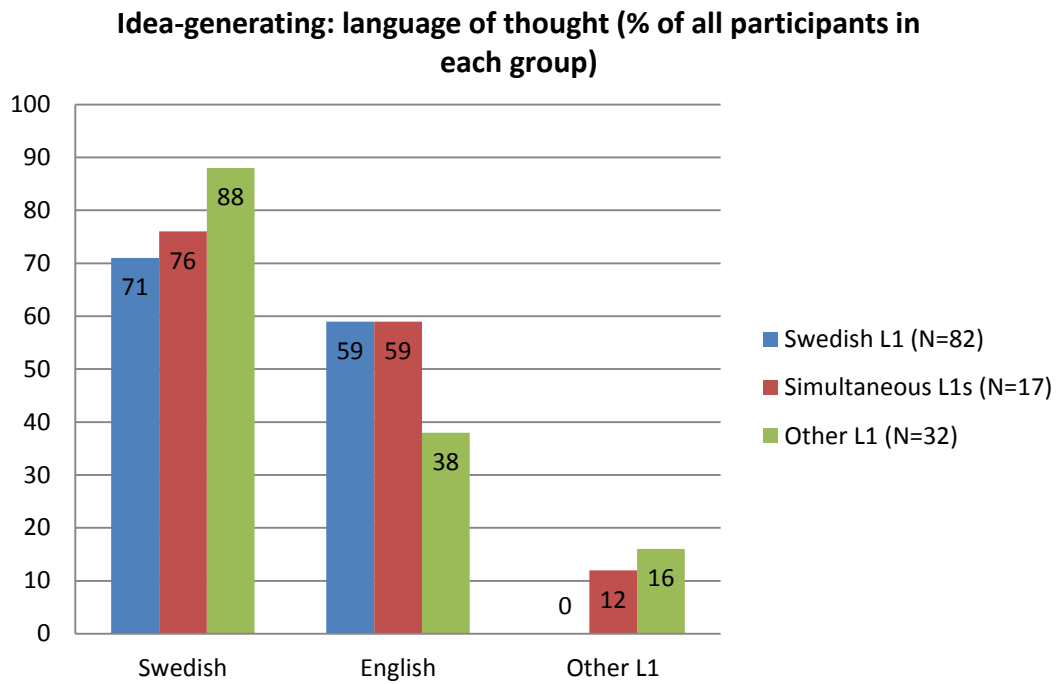
during *text-generating*, Swedish is reported to be activated by larger proportions of participants in the Simultaneous-L1s group (41%) and Other-L1 group (41%) than among the Swedish-L1 participants (22%). Thus, in this sample of participants, the Swedish-L1 students report a clearer tendency towards making a transition into thinking in English as they reach the stage of writing.

In order to sharpen the focus on the proportion of participants who report activating the different separate languages rather than the language combinations, we then computed the total number of times a language was ticked as being activated (rather than whether it was ticked as being activated in combination with another language or other languages). Thus, if a participant ticked both Swedish and English for a particular composing activity, this now resulted in 1 count for Swedish and 1 count for English (rather than 1 count for 'Swedish and English'). Following this procedure, three language categories are now possible ('Swedish', 'English' and 'Other L1') rather than the seven categories provided in Table 1, which facilitated presenting the results as bar charts, one for each composing activity, rather than a table. This, in turn, facilitates comparison across the three groups of participants. On the basis of this procedure, we created Figures 1-5 presented below.

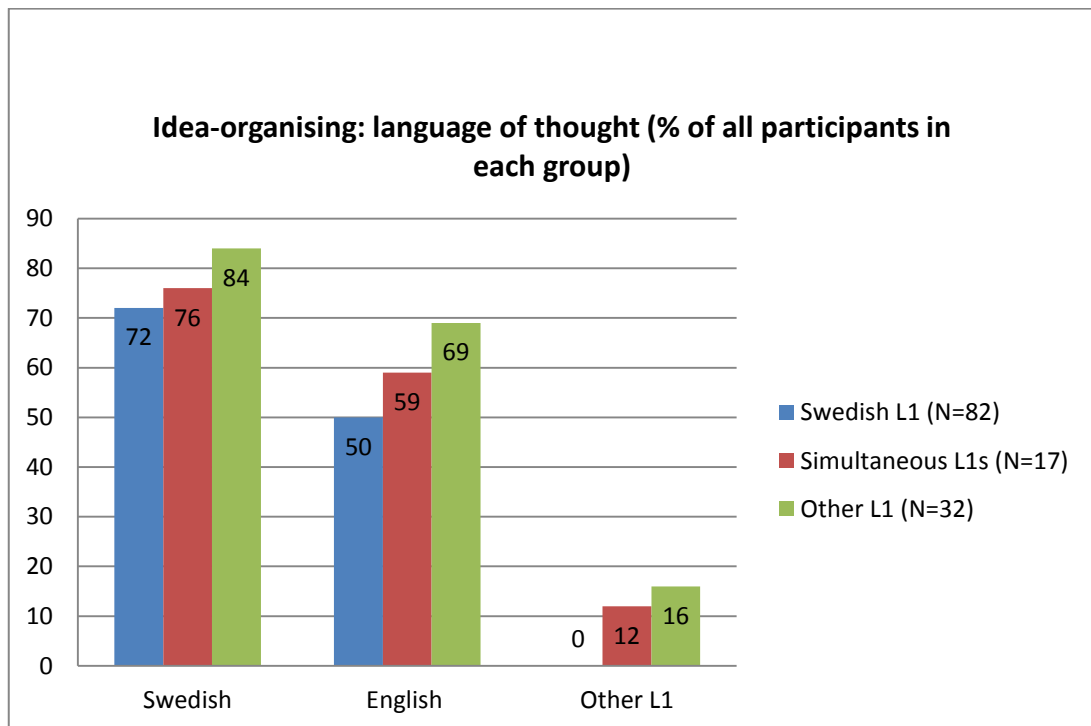
As a result of eliminating the language-combination categories (e.g. English & Swedish & other L1), the percentages of participants who report activating the three individual languages (Swedish, English and other L1) in the five figures below are higher than those in Table 1. For example, 90% of the Swedish-L1 participants reported activating 'Swedish' for '*task-examining*' (whether in combination with other languages or not) in Figure 1 below, compared to 66% for 'Swedish' in Table 1 for '*task-examining*' among the Swedish-L1 participants.



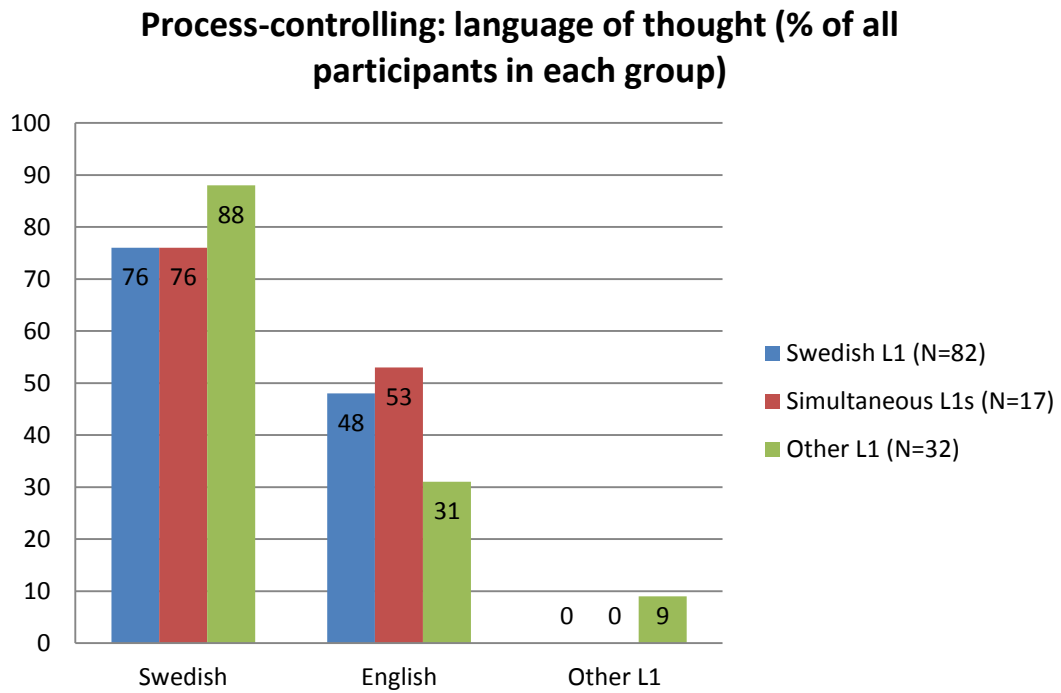
**Figure 1.** Percentage of participants, in each group, who reported activating Swedish, English and the other L1 while *task-examining*.



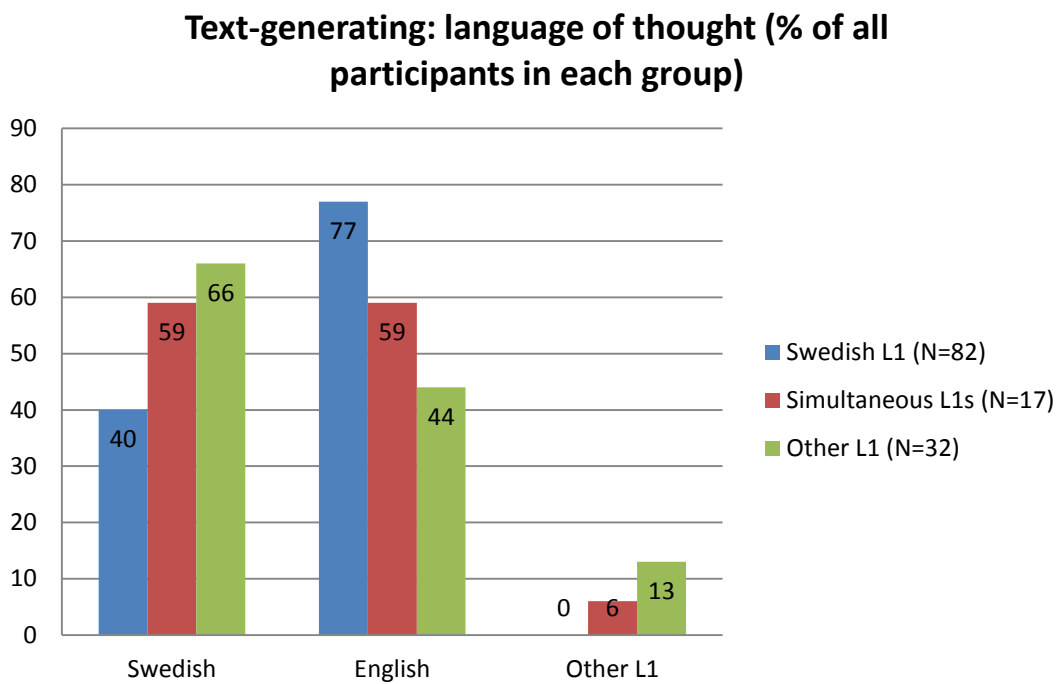
**Figure 2.** Percentage of participants, in each group, who reported activating Swedish, English or the other L1 during *idea-generating*.



**Figure 3.** Percentage of participants, in each group, who reported activating Swedish, English and the other L1 during *idea-organising*.



**Figure 4.** Percentage of participants, in each group, who reported activating Swedish, English or the other L1 during *process-controlling*.



**Figure 5.** Percentage of informants, in each group, who reported activating Swedish, English and the other L1 while *text-generating*.

Naturally, the results confirm those presented in Table 1; Swedish is the most frequently activated language across all three groups for all five composing activities with the exception of the participants in the Swedish-L1 group, who report more frequent activation of English than Swedish when *text-generating* (Figure 5). The activation of Swedish remains frequent across all five writing activities, particularly in the Other-L1 group. Another consistent result revealed is the more frequent activation of the other L1 by the Other-L1 group than by the Simultaneous-L1s group across all five composing activities. We now turn to considering these results in the light of previous research and theory accounted for at the beginning of this paper.

## 8 Discussion

Across all three groups, Swedish is the most frequently reported language of thought; as many as 92% of all participants report activating Swedish while engaging with an essay task in English. This agrees with previous research referred to at the beginning of this paper. Wang & Wen's study (2002) and Tullock and Fernández-Villanueva (2013) are particularly relevant as their participants were of a similar age as ours. Wang & Wen used think-aloud data, and among their participants (18-22 years of age, undergraduate students of English) 97% used their L1 (Chinese) at some stage while writing an essay in the L2 (English). Tullock and Fernández-Villanueva's study included 10 trilingual participants aged 16-17, eight (80%) of whom activated mainly their L1, although all three background languages were activated. Taken together, there is considerable empirical research showing that the majority of bi- and multilingual language learners in different educational settings activate other languages than the target language, mainly their L1, while writing in a non-native language. This result remains consistent regardless of whether the data are self-reported (as in the present paper) or think-aloud protocols (Tullock & Fernández-Villanueva 2013; Wang & Wen 2002).

English is reported as the second-most activated language by all three groups; it is reported to be used as a language of thought by more participants in our sample as they reach the actual writing stage (*text-generating*). Notable in the present study is the finding that a greater proportion of participants in the Swedish-L1 group report activating English when *text-generating*, particularly compared with the Other-L1 group. Instead, more participants in the Other-L1 group report thinking in Swedish while *text-generating*.

These results suggest that emergent bilingual students (the Swedish-L1 participants) in the Swedish context, whose L1 is the majority language, would be more likely to make the transition to thinking in English, their L2, than students who are users of three languages (Swedish, other L1 and English) and whose other L1 is a minority language. The result of there being more use of the target language when *text-generating* is consistent with the findings of Wang and Wen, whose participants (L1 Chinese) used their L2 (English) particularly when *task-examining* and *text-generating*. This can be explained by Grosjean's concept of base language; when students are thinking to themselves while working on a task, any language they know may be used (and our data show that some of our participants report drawing on all languages known to them). As they start encoding text in the target language however, they are no longer communicating solely with themselves; rather, their text is communicated with a reader, in this

case their teacher, who will be marking the essay. The student knows that the teacher will accept text in English only, and therefore it seems likely that the target language (English) then may become the base language at this text-encoding stage.

The result showing that a greater proportion of the Swedish-L1 participants reported using English as a language of thought can probably partly be explained by data gained from the questionnaire on participants' language use in their social networks and as a language of inner thought. Among the Swedish-L1 participants, English has a stronger presence in these respects than among the Other-L1 participants. Of the 82 Swedish-L1 participants, 6 (7%) report sometimes using English with friends, and 2 (2%) state that they sometimes use English with relatives. As many as 19 (23%) report dreaming either in English or in English and Swedish; 21 (26%) state that they think in English or a combination of English and Swedish when exercising; 16 (20%) report using English as a language of thought when studying; 3 (4%) state that they use English when calculating, and 1 (1%) when memorising a phone number. In the Simultaneous-L1s group, the presence of English is rather similar; 2 students (12%) report dreaming in English; 2 (12%) report activating English when memorising a phone-number and 3 (18%) when calculating, and 5 (29%) report thinking in English when exercising. In the Other-L1 group, however, English has a smaller presence. When exercising, 2 students (6%) report using English; when calculating and memorising a phone number, 1 student (3%) reports using English, and when studying and dreaming, English is only reported to be used in combination with another language (Swedish or the other L1) by 2 students (6%). The other L1, on the other hand, has a stronger presence in their social networks, and during inner-thought processes both among the Simultaneous-L1s and Other-L1 participants. In the Simultaneous-L1s group, 4 (24%) use their other L1 with both their parents and 13 (76%) with their relatives; 5 (29%) report dreaming in the other L1, 3 (18%) when memorising a phone number and when calculating. Among the Other-L1 participants, 18 (56%) use their other L1 with both their parents; 23 (72%) with their relatives; 15 (47%) when dreaming; 12 (38%) when memorising a phone number; 8 (25%) when calculating; 5 (16%) when studying, and 7 (22%) when exercising.

Even though the other L1 has a relatively strong presence in their social networks, it is reported to be activated during essay writing in English only by a minority of our multilingual participants. The few who state that they activate only their other L1 were all exposed to Swedish in the community around them only after the age of 3. This is the age sometimes referred to as constituting an approximate cut-off point for L1 acquisition to occur (so that a language encountered after age 3 is more likely to be an L2 rather than an L1) (Meisel 2008).

Another interesting finding is that the participants in the present study often report drawing on more background languages than one. This is in line with the notion of translanguaging as being a natural way of communicating among multilingual individuals. This corroborates findings in Cenoz & Gorter's study (2011), whose participants chatted with friends on Tuenti (the Spanish version of Facebook) in their spare time. The results show that they flexibly used all the languages they knew, i.e. were engaged in translanguaging, when chatting with their friends. Tullock & Fernández-Villanueva's study also showed that the participants, all of whom were users of four different languages, tended to use their complete language repertoires when writing in English. In the present

study, a minority of the participants with a multilingual background reported activating their other L1, however. This differs from Tullock & Fernández-Villanueva's study. It may be explained by the fact that the languages used by Tullock & Fernández-Villanueva's participants (Catalan, English, German and Spanish) have a strong position either in the school (German, Spanish and English) or outside of school in the community (Catalan). In the present study, the other L1s do not have a similarly strong position, neither in the community, nor in school. In addition, Tullock & Fernández-Villanueva's study was conducted in a (German) school in Spain, which specifically advocates and encourages multilingualism among its students. In comparison, our participants were enrolled in a mainstream Swedish-medium school, surrounded by a Swedish-speaking community, where multilingualism beyond Swedish (the majority language in Swedish society) and English (which is the L2 as well as a language of high status in Sweden) is not specifically advocated.

The strong presence of Swedish as a language of thought among the Simultaneous-L1s and Other-L1 participants throughout the writing process and even at the *text-generating* stage can be explained by the theory of language mode and the base-language effect (Grosjean 2008). The considerable body of research reviewed by Grosjean (2008) shows that bi- and multilingual individuals activate different parts of their language repertoires on the basis of the language repertoire of their interlocutor(s). In mainstream Swedish schools, Swedish is the base language as it is spoken by all school staff. We believe, therefore, that multilingual students in this specific context activate Swedish rather than their other L1, which is used mainly as a medium of communication in the home, with relatives during visits to the former home country and with the participants' mother-tongue teacher. This base-language effect favouring the activation of Swedish may also explain why participants report activating Swedish while *process-controlling*, i.e. paragraphing the text. In the school, essay writing is taught in Swedish during Swedish class. Also, since Swedish is the medium of instruction for all school subjects apart from foreign-language and mother-tongue classes, it is likely that our participants have developed academic-style literacy to a greater extent in Swedish than in their other L1. Previous research on the role of background languages reviewed above (Falk & Bardel, 2010) is also relevant here: Swedish is likely to be activated because of the factors of *recency of use* (being the medium of instruction in the school as well as the base language) and *proficiency level* (all participants in this study have high proficiency in Swedish). Thus, we believe several factors join forces, making Swedish the language most likely to be activated in the particular task in the specific context studied.

## 9 Concluding remarks

The present study has provided further empirical support for the frequent activation of the L1 when bi- and multilingual language users engage with a writing task in a non-native language. Our study also suggests that there are individual differences as to the extent to which a minority-language L1 is reported to be activated; some of our Simultaneous-L1s and Other-L1 participants say that they activate their other L1 whereas others state that they do not. Such individual difference has been documented in previous research (cf.



e.g. van Weijen et al. 2009), although not with participants speaking a minority-language L1 in addition to a majority-language L1 such as in the present study.

Since many participants report activating their entire language repertoires when engaging with the relatively demanding task of writing an essay in a non-native language, and since this finding agrees with previous research conducted in different educational contexts and with different language combinations, we encourage tolerance for students to flexibly use their complete language repertoires while engaging with tasks aimed at advancing their proficiency in a non-native language. Studies conducted within the framework of translanguaging usually emanate from bilingual-education settings (cf. e.g. Velasco & García 2014). We see the same need for translanguaging practices in settings where the target language is a *foreign* language, such as in our study. Our study in combination with previous research using think-aloud data suggest that allowing students to draw on their entire linguistic resources may be particularly warranted at the stage where they are generating and organising ideas prior to encoding text in the non-native language. Breaking with monolingual teaching practices, i.e. the (strict) use of the target language only in foreign-language classrooms, and allowing space for translanguaging (cf. Wei 2011) to take place may permit for the beneficial effects of translanguaging outlined at the beginning of this paper. This would also allow writing in the L2 or L3 to be the multilingual event that it clearly is in the minds of bi- and multilingual individuals.

Our data are not without limitations as the results presented here are based on self-reported (questionnaire) data. As stated above, these self-reported data do not necessarily reveal participants' *actual* use of languages of thought. Also, the language of the questionnaire (Swedish) may have favoured Swedish in line with Grosjean's base-language effect. We have treated the data as primarily qualitative given that they were collected in one school, and replication is required before the results can be generalized to a larger population than the sample covered in this study. An obvious avenue for further research would be to gather triangulated data, using questionnaires as well as think-aloud and stimulated recall data from the same individuals in Swedish schools. Particularly, detailed studies of individual differences using such multiple data sources would enable us to better understand how and why different emergent bi- and multilingual individuals draw on their language repertoires while solving complex school tasks. Such studies would provide a much more solid empirical base than what is currently available for teachers to draw on as they make decisions on how to best provide individual support for their students.

## Endnote

<sup>1</sup> Albanian, Arabic, Bosnian, Macedonian and Serbian are the main immigrant languages represented at this school; therefore, these languages were specifically named as possible responses along with Swedish and English.

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# Bakgrundsspråkens roll hos flerspråkiga elever som skriver uppsats på engelska

*En enkätstudie*

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Det här kapitlet handlar om flerspråkiga elever i årskurs nio i Sverige som alla är aktiva användare av tre språk under skoltid. Studien fokuserar på huruvida de använder sina olika bakgrundsspråk medan de utför tankearbetet när de skriver uppsats på engelska, som för dem är ett icke infött språk, antingen ett L2 eller ett L3. Termen *bakgrundsspråk* betyder här tidigare inlärd språk d.v.s. elevernas L1 och eventuella L2 (Falk & Bardel 2010, Hammarberg 2010).

Andelen flerspråkiga elever i Sverige ökar i takt med mobiliteten i dagens globaliserade samhälle. Trots detta är forskningen om flerspråkiga elevers lärande i engelska i Sverige nästan obefintlig (Tholin 2012). Läsåret 2011/2012 hade 20,7 % av eleverna i grundskolan annan språklig bakgrund än svenska (Skolverket 2011). Den här gruppen elever utmärks av stor variation i sin språkliga bakgrund (Fredriksson & Taube 2003, Håkansson 2003, Lindberg & Hyltenstam 2013).

Att möta de här elevernas varierande språkliga behov är en stor utmaning för skolan och dess personal (se Skolinspektionen 2010). Forskning visar att de svenska skolorna präglas av en monokulturell och enspråkig norm (Lahdenperä 1999, Lindberg & Hyltenstam 2013, Skolinspektionen 2010, Tholin 2012). Detta avspeglas i att det svenska språket och den svenska kulturen ofta utgör referenspunkt, vilket kan missgynna elever som har en annan kulturell och språklig bakgrund än den svenska (Tholin 2012). Den enspråkiga normen kommer också till uttryck i läroböcker i engelska och moderna språk där det nästan alltid finns gloslistor med svenska översättningsekvivalenter.

I skarp kontrast till denna enspråkiga norm står forskning som visar att flexibel kodväxling mellan elevers L1 och målspråket i klassrummet gynnar deras lärande (Baker 2011, Creese & Blackledge 2010, Cheng 2013, García m.fl. 2012), ökar deras motivation (Lin 1999) och delaktighet i kommunikationen

i klassrummet (Arthur & Martin 2006, Källkvist 2013a, 2013b, Lin & Martin 2006). Problematiken har uppmärksammats i en rapport från Skolinspektionen (2010), som visar att elever med annan språklig bakgrund än svenska får sämre förutsättningar att klara kunskapskraven än elever som vuxit upp i Sverige och talat svenska sedan den tidiga barndomen. Resultaten stöds av Skolverkets statistik som visar att elever med utländsk bakgrund i snitt har 20 meritpoäng färre än elever med helsvensk bakgrund efter årskurs 9 (Skolverket 2009). Skolinspektionens slutsats (2010) är att skolpersonalen vet för lite om elever med annat L1 än svenska och att man tar för lite hänsyn till deras faktiska kunskaper och språkliga bakgrund i undervisningen.

I samhället i stort finns också en diskurs som gör gällande att flerspråkighet snarare är ett problem än en resurs i undervisningen (Lindberg & Hyltenstam 2013, Musk & Wedin 2010). Det här gäller inte enbart i Sverige utan även i andra länder (Cenoz & Gorter 2011). Den här diskursen står i konflikt med internationell forskning som visar att elevers flerspråkiga kompetens tvärtom kan utgöra en resurs i undervisning och lärande. Forskningen tyder på att två- och flerspråkiga individers kompetens i olika språk bildar en samverkande helhet, vilket avspeglas i att flerspråkiga individer av naturen växlar mellan de språk de kan i olika kommunikativa situationer när så är möjligt (Cenoz & Gorter 2011, Velasco & García 2014). Enligt denna forskning är alltså gränserna mellan olika språk hos flerspråkiga individer permeabla. I skolan, däremot, är gränserna mellan språk i undervisning ofta hårt dragna, i vissa fall cementerade (Cenoz & Gorter 2011, García 2013). Med detta menas att ett visst språk uppmuntras i ett visst klassrum, till exempel enbart engelska under engelsklektionen medan andra språk inte får användas.

Mot bakgrund av den här svenska skolkontexten och den internationella flerspråkighetsforskningen intresserar vi oss för hur elever använder sina språkliga resurser (d.v.s. olika språk de behärskar) när de arbetar med komplexa skoluppgifter såsom uppsatsskrivning (Strömquist 2007, van Weijen m.fl. 2009) på ett icke infött språk. Vi genomför därför en studie av elever i grundskolan som alla lär sig engelska som L2 eller L3. I det här kapitlet rapporterar vi resultaten från den första delen av studien, som utgörs av enkätdata från flerspråkiga elever i årskurs 9 i en kommunal högstadieskola. De är alla aktiva användare av tre olika språk: sitt hemspråk (i modersmålsundervisningen och utanför skolan), svenska och engelska. För tydlighetens skull använder vi termen *hemspråk* i det här kapitlet för att ange

det språk som företrädesvis talas i hemmet. Den officiella beteckningen i skolsammanhang är *modersmål*, men eftersom flera av våra informanter har två modersmål (2LI), behöver vi skilja på det modersmål som talas i hemmet av familjen, och deras andra modersmål, svenska, som talas både i och utanför hemmet.

Vår studie fokuserar på uppsatsdelen i det nationella provet i engelska i årskurs 9. Vi undersöker i vilken utsträckning och för vilka syften som skolelever använder sina språkliga resurser och huruvida de upplever sig hjälpta av att använda sitt eller sina L1 under skrivprocessens gång. Vi väljer att undersöka uppsatsdelen i det nationella provet eftersom uppsatsskrivning är en komplex uppgift som kräver mycket tankearbete (Strömquist 2007, van Weijen m.fl. 2009). På basis av tidigare forskning finns det anledning att anta att elever just vid uppsatsskrivning skulle kunna ha särskild nytta av att utföra en del av tankearbetet på det eller de språk de kan bäst, särskilt i de faser då de arbetar med uppsatsens innehåll och struktur (Cenoz & Gorter 2011, Tullock & Fernández-Villanueva 2013, van Weijen m.fl. 2009, Wang & Wen 2002, Wang 2003, Woodall 2002). Engelska är också ett ämne där flerspråkighet torde vara en tillgång och där kunskap om svenska och den svenska kulturen inte nödvändigtvis borde innebära en fördel. Tvärtom borde kunskaper i andra germanska och romanska språk innebära fördelar med tanke på att engelskans ordförråd framförallt består av ord med germanskt respektive latinskt-romanskt ursprung.

Nedan beskriver vi vårt syfte och våra forskningsfrågor. Därefter presenterar vi teoretiska perspektiv på flerspråkighet som förs fram i den internationella forskningslitteraturen samt en modell av skrivprocessen i ett andraspråk. Sedan följer en presentation av vår studie och de resultat som vi kommer fram till. Vi avslutar med en diskussion av våra resultat i ljuset av tidigare forskning och teorier om flerspråkighet.

## Syfte och forskningsfrågor

Sedan 2010 är det fastslaget i skollagen att skolans undervisning ska vila på vetenskaplig grund och beprövad erfarenhet. Det övergripande målet med den här studien är att bidra till den vetenskapliga grunden för lärande och undervisning i skrivande på ett icke infött språk. Det mer specifika syftet är att bättre förstå om och hur skolelever använder sin totala språkliga repertoar

när de arbetar med en komplex uppgift såsom uppsatsskrivning. Våra två forskningsfrågor är:

- 1 Hur många av informanterna uppger sig tänka på svenska, sitt hemspråk respektive engelska medan de skriver uppsats på engelska?
- 2 Är olika språk kopplade till olika faser i skrivprocessen?

Tidigare empirisk forskning om skrivande på ett icke infött språk (Cenoz & Gorter 2011, Tullock & Fernández-Villanueva 2013, van Weijen m.fl. 2009, Wang 2003, Wang & Wen 2002) som vi presenterar nedan har visat att det är mycket vanligt att tänka på L1 under skrivprocessens gång. Därför presenterar vi hypotesen att våra informanter någon gång kommer att uppge att de tänker på sitt eller sina L1. Detta är även berättigat utifrån teoretiska perspektiv på flerspråkighet, som vi nu kortfattat ska beskriva.

## Teoretiska perspektiv på flerspråkighet

Den senaste forskningen om två- och flerspråkighet tyder på att en individs kunskaper i olika språk samverkar (Cenoz & Gorter 2011, Grosjean 2008, Velasco & García 2014). Cook hävdade detta redan på 1990-talet (Cook 1992), då han myntade termen *multicompetence*. Grosjean (2008) kallar detta för *the holistic view of bilingualism*, medan Cenoz & Gorter (2011) för fram begreppet *focus on multilingualism*. Det finns mycket empiriskt stöd för denna syn på flerspråkiga individers språkkompetens. Exempelvis har Cooks forskning visat att en individs L2 faktiskt kan påverka samma individs L1 vad gäller fonologi, vokabulär, syntax och pragmatik (för en översikt se Cook 2012). Dessa resultat stöds av nya studier om bakgrundsspråkens roll för L3-inlärare (Cenoz & Gorter 2011, Tullock & Fernández-Villanuevas 2013).

Grosjeans (2008) teori om språkmodus är särskilt relevant eftersom den rör aktiveringen av språk hos två- eller flerspråkiga individer. Med språkmodus menar Grosjean "the state of activation of the bilingual's languages and language processing mechanisms at a given point in time" (2008, s. 39). Enligt Grosjean befinner sig tvåspråkiga individer på en skala mellan ett enspråkigt modus och ett tvåspråkigt modus beroende på samtalspartnerns/mottagarens språkliga bakgrund samt på situationen och sammanhanget. Individer som talar fler än två språk kan växla mellan enspråkigt och flerspråkigt



modus. Rent konkret innebär detta att en individ inhiberar sitt/sina andra språk från att aktiveras om det endast är ett språk som är samtalspråket, som då kallas *basspråk*. Om mottagaren, å andra sidan, kan samma språk kan den två- eller flerspråkiga individen gå över till ett flerspråkigt modus. Då aktiveras de språk som är möjliga att använda och man väljer ett lämpligt basspråk, som är det språk som är mest aktiverat. Vi återkommer till Grosjeans teori i diskussionsavsnittet, där vi använder begreppet basspråk när vi tolkar våra resultat. Även om vi använder Grosjeans teori om språkmodus för att tolka och förklara våra resultat, vill vi påpeka att man på basis av våra data inte kan hävda att de olika språken *aktiveras* medan informanterna tänker såsom vore fallet om de verbaliserat sina tankar högt. Det vi undersöker är vilka språk som våra informanter rapporterar att de använder i tankearbetet medan de skriver uppsats på engelska. Vi går nu vidare och beskriver resultat från tidigare forskning som är relevanta för vår studie.

## Forskning om aktivering av bakgrundsspråk

Den forskning om bakgrundsspråk som hittills utförts rör mestadels vokabulär; därefter kommer syntax och fonologi (för en översikt, se Falk & Bardel 2010). När det gäller L3-inlärningsprocessen visar studier att både L1 och L2 används, och man har identifierat fyra olika faktorer som påverkar vilket av de två bakgrundsspråken som utnyttjas när individer använder sitt L3: graden av *aktualitet* (d.v.s. om språket har använts nyligen), individens *färdighetsnivå* i bakgrundsspråket, graden av *typologisk likhet* och sist, men inte minst, *L2-status* (d.v.s. det faktum att L2 har lärts in som ett icke infött språk, precis som L3) (se till exempel Falk & Bardel 2010). Flera av de här faktorerna varierar i styrka. Till exempel varierar graden av typologisk likhet längs en skala från att vara mycket olik till att uppvisa ganska stora likheter; exempelvis är kinesiskan och svenskan typologiskt mycket olika, medan engelska och svenska uppvisar stora likheter, och svenskan och danskan uppvisar ännu större likheter. Man anser också att de fyra olika faktorerna samverkar i specifika situationer. Det språk som har det sammanlagda högsta värdet när det gäller alla fyra faktorerna bör ha störst sannolikhet att användas (se Hammarberg, kapitel 2). Ett språk som har hög grad av *aktualitet*, som uppvisar många *typologiska likheter* med målspråket och där elever dessutom har hög *färdighetsnivå* och är ett L2 används med hög sannolikhet hos L3-inlärare.

Vi ska nu begrunda dessa faktorer vad gäller skrivprocessen, som är den språkanvändning vi undersöker. Det finns en rad tidigare studier om skrivande på L2 (men färre om L3). Dessa visar att de allra flesta individer tänker på sitt L1 i det tankearbete de gör när de skriver på L2 (se Murphy & Roca de Larios 2010, van Weijen m.fl. 2009, Wang & Wen 2002 för översikter). L1 används framför allt för att lösa lexikala problem i olika stadier av skrivprocessen och för att fundera kring uppsatsämnet och hur uppsatsen ska struktureras (van Weijen m.fl. 2009, Wang & Wen 2002). Ett par studier visar att informanter med lägre färdighetsnivå i L2 har en större tendens att använda sitt L1 (Sasaki 2000, Wang 2003). Dock visar Wangs (2003) studie att vuxna informanter (L1 kinesiska) som hade relativt hög färdighetsnivå i sitt L2 (engelska) ändå tänkte på L1 när de behövde lösa problem och tänka kring uppsatsens ämne, men inte lika ofta för att lösa rena språkproblem.

Det finns betydligt färre studier om flerspråkiga skolelevers skrivande. En sådan är Cenoz och Gorter (2011), där man studerade 165 14–15-åriga elever i Spanien som skrev uppsats på tre olika språk: baskiska (deras L1 eller L2), spanska (deras L1 eller L2) och engelska (deras L3). I deras studie hade även vissa (23 % av de 165 informanterna) 2L1 (den tekniska benämningen för två förstaspråk) baskiska och spanska. Cenoz och Gorter fann att de elever som hade god skrivförmåga i sitt L1/sina L1 även hade god förmåga att skriva på engelska, som var deras L2 eller L3. Studien visar således på en generell skrivförmåga som elever överför från ett språk till ett annat. Studien fokuserar också på kodväxling när informanterna skriver på de tre olika språken. Resultaten visar att kodväxling skedde mellan alla språk, men användningen av ord i L1 och L2 var betydligt vanligare när de skrev på L3 än tvärtom. Cenoz och Gorter förklarar resultaten genom att hänvisa till elevernas *färdighetsnivå*, som är högre i baskiska och spanska än i engelska, och graden av *aktualitet* eftersom eleverna möter spanska och baskiska betydligt oftare i skolan och på fritiden än engelska.

Det finns ytterligare en studie om flerspråkiga skolelevers skrivande, Tullock & Fernández-Villanueva 2013, där man studerade användningen av olika tankespråk hos elever som skrev på engelska, som var deras L3. Liksom mycket annan forskning fokuserar Tullock & Fernández-Villanueva på hur deras informanter använder sina bakgrundsspråk för att tänka när de ska lösa lexikala problem under skrivandets gång. Informanterna var tio 16–17-åriga elever i en tyskspråkig skola i Spanien. De ombads att tänka högt

medan de skrev på engelska (deras L<sub>3</sub>). Eleverna talade redan spanska (L<sub>1</sub>), katalanska (L<sub>1</sub>) och tyska (L<sub>2</sub>). Resultaten visar att sju av de tio använde sig av alla tre eller fyra språk de kunde, men eleverna hade en preferens för att använda sitt L<sub>1</sub>.

I vår studie intresserar vi oss särskilt för vilka bakgrundsspråk som används för att tänka hos flerspråkiga individer samt i vilka faser av skrivprocessen användningen av de olika tankepråken sker. För att kunna relatera till tidigare forskning om skrivande på L<sub>2</sub> använder vi oss av en modell av skrivprocessen i L<sub>2</sub> som utvecklats och använts för att studera hur mycket och för vilka syften L<sub>2</sub>-inlärare använder sitt L<sub>1</sub> när de skriver på L<sub>2</sub> (Wang & Wen 2002).

## En modell av skrivprocessen i L<sub>2</sub>

Wang och Wen (2002) utvecklade sin modell på basis av Flower & Hayes-modellen för skrivande på L<sub>1</sub> (Flower & Hayes 1981). Wang och Wens informanter var kinesiska universitetsstudenter i åldern 18–22 år som skrev en berättande och en argumenterande text på engelska (deras L<sub>2</sub>) medan de tänkte högt på valfritt språk. Modellen har tre komponenter, som sedan delas upp i mindre delar: den första komponenten utgörs av själva uppgiften (*Task Environment*), den andra är själva skrivprocessen (*The Composing Processor*), den tredje och sista komponenten utgörs av skribentens långtidsminne, bestående av omvärldskunskap (*World Knowledge*), generell förmåga att skriva text (*Rhetorical Knowledge*) och kunskap i språket som skrivandet sker på (*Linguistic Knowledge*).

Wang och Wens studie fokuserar på själva skrivprocessen, d.v.s. den andra komponenten, och de undersöker de kinesisktalande studenternas språkval när de tänker högt. Enligt modellen kan man urskilja fem tankeaktiviteter som individer ägnar sig åt medan de skriver: *bearbetning av instruktionen* ('task-examining'), *idégenerering* ('idea-generating'), *idéorganisering* ('idea-organizing'), *strukturbearbetning* ('process-controlling') och *textgenerering* ('text-generating') (samtliga översättningar är våra). I *bearbetning av instruktionen* läser skribenterna instruktionen för uppgiften och försäkras om att de förstår vad som ska göras. *Idégenerering* kallas den aktivitet då man funderar på innehållet i texten som ska produceras och *idéorganisering* handlar om i vilken ordning man väljer att använda sina idéer för innehållet.

När skribenterna funderar på textens disposition t.ex. i form av stycken, underrubriker, lämplig inledning och avslutning kallas det för *strukturbearbetning*. Den sista aktiviteten är *textgenerering*, vilket är det som sker när man sätter pennan till pappret (eller fingrarna på tangentbordet) och börjar skriva. Wang och Wen poängterar att de fem tankeaktiviteterna inte utförs i kronologisk ordning. Deras informanter tenderade att växla från den ena till den andra under skrivprocessens gång. Alla informanter utförde dessa fem olika tankeaktiviteter men olika informanter lade olika vikt vid dem.

Wang och Wens studie visade att tankeaktiviteterna *bearbetning av instruktionen* och *text-genereringen* var L2-dominanta, vilket betyder att majoriteten av informanterna tänkte högt mest på sitt L2 när de befann sig i dessa faser av skrivprocessen. De övriga tre tankeaktiviteterna, *idégenerering*, *idéorganisering* och *strukturbearbetning* var däremot L1-dominanta. Grosjeans begrepp språkmodus och basspråk skulle kunna förklara dessa resultat; instruktionen var på L2 och i textgenereringsfasen formulerade sig informanterna på L2. Man skulle därför kunna hävda att basspråket vid dessa tankeaktiviteter är L2 (engelska). Att informanternas L1 dominerar i faserna *idégenerering*, *idéorganisering* och *strukturbearbetning* tyder på att L1 kan ha en viktig funktion när flerspråkiga individer planerar och strukturerar sina uppsatstexter, något som stämmer överens med tidigare forskning om skrivande på L2 (van de Weijen m.fl. 2009). Under förutsättningen att L1 är det starkaste språket, är det rimligt att anta att det då utgör basspråket i de här tankeaktiviteterna eftersom informanten i sitt tankearbete kommunicerar med sig själv.

I vår undersökning om vilka av sina språk våra informanter uppger sig tänka på under de olika tankeaktiviteterna använder vi samma fem kategorier som Wang och Wen gjorde, d.v.s. *bearbetning av instruktionen*, *idégenerering*, *idéorganisering*, *strukturbearbetning* och *textgenerering*. Vi kommer också att relatera våra resultat till Wang och Wens.

## Informanter

I den här studien deltog 37 informanter (19 flickor och 18 pojkar) i åldern 15–16 år. Av dessa klassificerar vi 31 som simultant tvåspråkiga eftersom de har talat både sitt hemspråk och svenska sedan den tidiga barndomen. För dessa individer använder vi termen 2L1 och engelska är i deras fall ett L2. Resterande 6 informanter kategoriserar vi som successivt tvåspråkiga. Deras

hemspråk utgör deras L1. Svenska är deras L2 eftersom de mötte svenska språket först efter tre års ålder. Engelska är deras L3. Vi använder 3 års ålder som en praktisk gräns i enlighet med McLaughlin (1984). Dock är ålderskriteriet under barndomsperioden för när ett språk anses utgöra ett L1 kontra ett L2 omdiskuterat (Baker 2011).

Informanterna gick alla i årskurs 9 (i olika klasser) i en kommunal skola i en medelstor svensk stad 2013 då materialet samlades in. Gemensamt för dem alla är att de använder både svenska och sitt hemspråk i sin vardag, att de deltar i modersmålsundervisning i hemspråket och att de lär sig engelska som icke infött språk. Hemspråken som finns representerade hos våra informanter utgörs av följande: albanska, arabiska, bosniska, danska, franska, italienska, makedonska, mandarin, polska, serbiska, ungerska eller vietnamesiska.

Informanternas olika modersmål i kombination med deras individuella val av olika moderna språk i skolan gör dem som grupp heterogena och varje informant har sin unika språkprofil. Exempelvis finns det en elev som har svenska och arabiska som sina 2L1, engelska som L2 och spanska (sedan årskurs 6) och mandarin (sedan årskurs 8) som sina övriga icke infödda språk. Ett annat exempel är en elev som har svenska och albanska som sina 2L1 och engelska som L2, men har valt bort andra moderna språk. Ytterligare ett exempel är en elev som har bosniska och svenska som sina 2L1, engelska som L2, och franska (från årskurs 6), och tyska (sedan årskurs 8) som övriga icke infödda språk.

Ur enkätsvar om informanternas användning av de tre språk de kan (svenska, hemspråket och engelska) framkommer följande information om deras användning av sitt hemspråk: 21 elever (57 %) använder enbart sitt hemspråk med sina föräldrar. Ungefär en tredjedel av dem använder både hemspråket och svenska i samtal med föräldrarna.

Nästan hälften av eleverna (17/46 %) använder både hemspråket och svenska med sina syskon, medan något färre deltagare (13/35 %) använder enbart svenska med syskonen. Endast 5 elever (14 %) använder enbart sitt hemspråk med sina syskon.

Språkbruket med släktingar domineras av hemspråket då 21 deltagare (57 %) angivit att endast detta språk används medan 15 (41 %) svarar att de använder både hemspråket och svenska. Med sina vänner uppger majoriteten (19/51 %) att de använder enbart svenska, medan 35 % (13 elever) uppger att de använder sitt hemspråk och svenska.



Sammanfattningsvis kan man säga att informanternas hemspråk dominerar i kommunikationen med föräldrar och släktingar, medan det inte används i samma utsträckning med syskon och vänner. Det framgår även att informanterna skiftar mellan sitt hemspråk och svenska i kommunikationen med föräldrar och syskon. Detta tyder alltså på att både svenska och hemspråk är möjliga baspråk i kommunikationen i hemmet.

## Data

För att ta reda på informanternas självrapporterade val av tankespråk när de skriver uppsats på engelska, skapade vi en enkät, som vi nu ska beskriva. Enkäten (se appendix) användes för att undersöka dels i vilken utsträckning informanterna tänker på de olika språk de kan medan de skriver uppsats på engelska, dels för att få information om deras språkliga bakgrund och språk-användning i sina sociala nätverk (som vi beskrivit ovan). Enkäten utformades i enlighet med Dörnyei (2010) och Trost (2012) och pilottestades på en elev innan den användes. Den inleds med frågor om informanternas bakgrund (födelseland, föräldrarnas L1, språk-användning i hemmet och på fritiden samt eventuella regelbundna vistelser i länder där deras andra L1 talas).

Enkätundersökningen genomfördes på svenska under lektionstid, och en av författarna var närvarande när eleverna fyllde i enkäten för att informera och besvara eventuella frågor. Enkäten gav även utrymme för fritextsvar om elevernas språk-användning under skrivprocessen i engelska. Några få elever skrev fritextsvar.

För att undersöka vilka av sina bakgrundsspråk de uppger sig tänka på när de skriver uppsats på engelska i skolan bad vi informanterna ange vilka språk de använder som tankespråk när de utför de fem tankeaktiviteterna som tidigare identifierats av Wang och Wen (2002). Eftersom vår studie har sin bas i Grosjeans teori om språkmodus, kunde informanterna ange att de använder fler än ett språk, till exempel att de tänker på både svenska och engelska eller på alla tre språken. Frågan som ställdes till eleverna var vilket eller vilka språk de använder i de fem olika tankeprocesserna. För att göra frågan mer lättillgänglig för eleverna ändrades rubrikerna på de fem aktiviteterna till ett tydligare ordval. 'Bearbetning av instruktionen' blev därför *funderar på instruktionen*, medan 'idégenerering' blev *kommer på saker att skriva om*; 'idéorganisering' blev *tänker på ordningen i det du ska*

*skriva*, och 'strukturbearbetning' omformulerades till *tänker på strukturen (inledning, mitt, avslut)* samt 'textgenerering' blev *sätter pennan till pappret och skriver*. Nedan presenterar vi resultaten.

## Resultat

Resultaten för frågeställning 1 framgår nedan i tabell 7.1 (för de 6 successivt tvåspråkiga informanterna, som har svenska som L2 och engelska som L3) och i tabell 7.2 (för de 31 simultant tvåspråkiga informanterna, som har 2L1 och engelska som L2). Några informanter uppger att de tänker på flera av sina tre språk samtidigt vilket återges i tabellen nedan.

**Tabell 7.1** Antal informanter med engelska som L3 som uppger sig tänka på svenska, sitt hemspråk, och engelska vid något skede när de skriver uppsats på engelska.

Hemspråket (L1)	3
Svenska (L2)	6
Engelska (L3)	4

I tabellen kan vi se att samtliga sex informanter uppger att de tänker på svenska någon gång när de skriver, medan fyra även säger sig tänka på engelska, och tre anger att de någon gång tänker på sitt hemspråk. I den här gruppen finns de tre informanter som ger den tydligaste indikationen på att de tänker på sitt hemspråk. De anger nämligen att de vid någon av de fem tankeaktiviteterna tänker enbart på sitt hemspråk. Språken är italienska, bosniska respektive polska.

Tabell 7.2 visar motsvarande resultat för de 31 simultant tvåspråkiga (2L1) informanterna.

**Tabell 7.2** Andelen simultant tvåspråkiga informanter som uppger sig tänka på svenska, sitt hemspråk, och engelska vid något skede när de skriver uppsats på engelska

Hemspråket (L1)	7
Svenska (L1)	29
Engelska (L2)	19

Svenska är det mest frekvent använda tankepråket i den här gruppen, följt av engelska i 19 av fallen och hemspråket i sju fall. En granskning av de 7 informanter som uppger sig tänka på sitt hemspråk visar att alla sju talar sitt hemspråk med minst en förälder och att alla regelbundet tillbringar somrarna i sina tidigare hemländer där hemspråket talas. De hemspråk som talas av de här sju informanterna är typologiskt sett ganska olika: tre informanter talar bosniska (sydslaviskt språk) och fyra talar albanska (indo-europeiskt språk av oklart ursprung).

Vår andra frågeställning rör huruvida de olika språken används i olika faser av skrivprocessen i enlighet med Wang & Wens (2003) modell. Resultaten för de sex successivt tvåspråkiga informanterna framgår av tabell 7.3.

**Tabell 7.3** Antal informanter med engelska som L3 som uppger sig tänka på de olika språken (och kombinationer av språken) för de fem olika skrivaktiviteterna

Tankepråk	Aktivitet 1 (bearbetning av instr.)	Aktivitet 2 (idégenerering)	Aktivitet 3 (idéorganisering)	Aktivitet 4 (strukturbearbetning)	Aktivitet 5 (textgenerering)
Svenska	6	3	1	5	1
Hemspråk	0	1	1	0	1
Engelska	0	2	1	1	3
Svenska och engelska	0	0	1	0	0
Svenska och hemspråk	0	0	1	0	0
Svenska, engelska och hemspråk	0	0	0	0	0
Inget svar	0	0	1	0	1

Tabell 7.3 visar att samtliga successivt tvåspråkiga informanter säger sig tänka på svenska under den första tankeaktiviteten, då de ska bearbeta instruktionen till uppgiften. Två av informanterna uppger att de vid idéorganisering använder två språk (i detta fall svenska och engelska eller svenska och italienska), medan de övriga fyra tänker på ett språk åt gången för de fem tankeaktiviteterna. Svenska används av tre för att tänka kring idé-generering, medan det används av så många som fem för strukturbearbetning. Engelska uppges användas oftast under textgenereringen. Tre informanter uppger att de tänker enbart på hemspråket (bosniska, italienska



**Tabell 7.4** Antal informanter med engelska som L2 som uppgav sig tänka de olika språken (och kombinationer av språken) för de fem olika skrivaktiviteterna.

Tanquespråk	Aktivitet 1 (bearbetning av instr.)	Aktivitet 2 (idégene- rering)	Aktivitet 3 (idéorgani- sering)	Aktivitet 4 (struktur- bearbetning)	Aktivitet 5 (textgene- rering)
Svenska	15	13	11	15	11
Annat L1	0	0	0	0	0
Engelska	2	3	3	4	10
Svenska och engelska	10	11	12	10	6
Svenska och annat L1	4	3	5	2	3
Svenska, engelska och annat L1	0	1	0	0	1
Inget svar	0	0	0	0	0

och polska) vid tre olika tankeaktiviteter: idégenerering, idéorganisering och textgenerering.

Motsvarande resultat för de 31 simultant tvåspråkiga informanterna anges i tabell 7.4. Man kan se att de ofta säger sig tänka på mer än ett språk samtidigt, exempelvis både svenska och engelska. Svenska används framför allt under den första tankeaktiviteten, d.v.s. vid *bearbetningen av instruktionen*. Där uppger sig 15 av de 31 informanterna tänka på enbart svenska. Det kan jämföras med att endast 2 av informanterna anger att de tänker på enbart engelska för *bearbetning av instruktionen*. Användningen av svenska är också frekvent under tankeaktiviteterna *strukturbearbetning*, *idégenerering* och *idéorganisering*. Engelska anges av flest informanter användas under tankeaktivitet 5, *textgenerering*. För den aktiviteten uppger ungefär en tredjedel av informanterna att de tänker enbart på engelska.

Informanternas hemspråk används oftast i kombination med svenska och under tankeaktivitet 3, *idéorganisering*, av den största andelen; totalt 5 informanter uppger att de tänker på sitt hemspråk och svenska (se tabell 7.4, aktivitet 3, *idéorganisering*).

Sammanfattningsvis visar resultaten att de här informanternas båda L1 (svenska och hemspråket) har en tendens att användas särskilt när de a) bearbetar instruktionen till en uppsats, b) genererar idéer till uppsatsens

innehåll och c) tänker kring uppsatsens disposition. Svenska är det L1 som oftast används för att tänka. Engelska (L2) uppges användas under hela skrivprocessen av vissa informanter, men främst när informanterna börjar skriva, alltså under aktiviteten *textgenerering*.

Vad gäller användningen av engelska är det också värt att notera att två av de 31 informanterna uppger sig tänka enbart på engelska under hela skrivprocessen. Den ena är simultant tvåspråkig i svenska och albanska, den andra i svenska och arabiska. Båda skrev fritextsvar på sina enkäter. Särskilt den ena (en flicka, född i Sverige, vars 2L1 är albanska och svenska) uttrycker en mycket positiv attityd till det engelska språket. Som svar på fråga 13 (*Finns det något språk som du känner att du inte får använda så mycket som du vill i skolan?*) skriver hon ”engelska, hade hellre velat tala det heltid”. Som svar på fråga 19 (*Finns det något mer du tycker jag borde veta om dina skrivvanor i engelska? Skriv gärna här:*) skriver hon: ”Jag tänker och pratar engelska för det mesta. Det är något jag vill och kommer att göra livet ut.” Den andra informanten som uppger sig tänka enbart på engelska (en flicka, född i Sverige, vars 2L1 är arabiska och svenska) skriver i sitt fritextsvar till fråga 19 (*Finns det något mer du tycker jag borde veta om dina skrivvanor på engelska? Skriv gärna här:*) ”Har en amerikansk dialekt”, vilket torde tyda på att hon identifierar sig med amerikansk engelska.

## Diskussion

Informanterna i den här enkätstudien uppger sig ofta tänka på svenska respektive engelska i olika faser av skrivprocessen. Hemspråket säger de sig använda mera sällan, och det är färre informanter som uppger att de överhuvudtaget använder det i sin tankeprocess. De informanter som ger den tydligaste indikationen på att de tänker på sitt hemspråk (italienska, polska och bosniska) mötte svenska språket först efter 3 års ålder. En förklaring till dessa tre informanters självrapporterade användning av hemspråket (bosniska, italienska respektive polska) skulle då kunna vara att deras hemspråk (L1) är ett starkare språk (se Grosjean 2008, s. 77, Håkansson 2003) än svenska, som på basis av ålderskriteriet är deras L2. Resultaten visar också på individuell variation. Bland informanterna finns totalt sex som kan anses vara successivt tvåspråkiga på basis av ålderskriteriet (d.v.s. de mötte svenska först efter 3 års ålder). Av dessa 6 är det tre som uppger sig någon gång tänka på sitt L1,

medan de andra tre inte gör det. Annan tidigare forskning om användningen av L1 som tankespråk under uppsatsskrivning har också påvisat individuell variation (Velasco & García 2014, van Weijen m.fl. 2009). Vi hittar dock ingen studie som undersökt anledningen till den individuella variationen, d.v.s. vilka faktorer som potentiellt kan förklara varför vissa flerspråkiga individer har en preferens för att använda sitt L1 som tankespråk.

Resultatet att svenska uppges användas som tankespråk frekvent av nästan samtliga informanter stämmer väl överens med tidigare forskning. Flera tidigare studier som undersökt samma fenomen men med hjälp av tänka-högt-data istället för enkäter redovisar samma resultat (Cenoz & Gorter 2011, Murphy & Roca de Larios 2010, Tullock & Fernández-Villanuevas 2013, van Weijen m.fl. 2009, Wang & Wen 2002). Wang och Wens (2002) studie liknar vår och vi använder deras modell, men deras informanter var äldre, 18–22 år, och läste engelska som L2 i en annan skolkontext, nämligen på universitetsnivå i Kina. Vidare är de två inblandade språken, kinesiska (L1) och engelska (L2) inte lika närbesläktade som svenska och engelska. Trots dessa skillnader överensstämmer Wang och Wens resultat ganska väl med våra: i båda studierna användes L2 mer i textgenereringsfasen än i den fas där informanterna funderade kring textens innehåll och disposition. Även van Weijen m.fl. (2009) använder sig av tänka-högt-data för att studera användningen av L1 (nederländska) som tankespråk hos 20 nederländska universitetsstudenter (medelålder 18 år och 10 månader) som skrev uppsats på engelska (L2). Deras resultat visar att 100 % av informanterna någon gång använde sitt L1 när de tänkte högt. I våra enkätdata uppger 35 av 37 individer att de använder sitt ena L1 (svenska) och Wang och Wens tänka-högt-data visade att 15 av deras 16 informanter någon gång tänkte högt på sitt L1. Till skillnad från Wang och Wens studie är Tullock och Fernández-Villanuevas (2013) informanter i ungefär samma ålder som våra, 16–17 år. De läste engelska som L3 men som ett skolämne precis som våra informanter gjorde. Likt Wang och Wen använder de tänka-högt-data, och deras resultat visar att 8 av de 10 informanterna, någon gång tänkte högt på sitt L1 medan de skrev en uppsats på engelska. Resultaten visar också att 7 av de 10 informanterna tänkte på alla fyra språk som ingår i deras språkliga repertoar. Resultaten från vår enkätstudie bekräftar således resultaten från studier som använt tänka-högt-data: L1 används ofta för att tänka när elever och studenter skriver på ett icke infött språk (L2 eller L3), och många flerspråkiga elever

tenderar att använda hela sin språkliga repertoar för att tänka, d.v.s. flera eller alla olika språk de kan.

Vad gäller användningen av språken i olika faser av skrivandet på L2, stämmer ett av våra resultat med Wang och Wens, nämligen att användningen av målspråket ökar i den femte tankeaktiviteten, d.v.s. under textgenereringsfasen. Det verkar rimligt att man övergår till mer användning av målspråket för att tänka just i den fas då man börjar formulera sig på målspråket, vilket är den förklaring som Wang och Wen ger. Ett av våra resultat stämmer dock inte med Wang och Wens: i Wang och Wens studie tänkte majoriteten av informanterna på målspråket (engelska) när de bearbetade instruktionen, som var på engelska. I vår studie råder motsatt förhållande: majoriteten uppger sig tänka på svenska just i den fas då de bearbetar instruktionen. Anledningen till de här motsägande resultaten skulle kunna vara att instruktionen i Wang och Wens studie var just på engelska, att informanterna var äldre (18–22) än våra, och att de studerade engelska på heltid på universitetsnivå. Därför utgjorde engelska i större utsträckning baspråket i just den kontexten. I vår kontext – en högstadieskola i Sverige – är det rimligt att anta att svenska utgör baspråket, och svenska var även baspråket i enkäten som våra informanter fyllde i.

Våra resultat kan förklaras av Grosjeans teori om språkmodus, d.v.s. att två- och flerspråkiga individer rör sig på en skala mellan ett enspråkigt eller ett flerspråkigt modus, och att de anpassar sig efter yttre faktorer, exempelvis personer som de kommunicerar med eller platser där ett visst språk används. Det här kan förklara varför så många informanter angav att de växlar mellan de tre språk de kan när de tänker; de kommunicerar med sig själva när de tänker, och eftersom de kan tre språk är det möjligt för dem att befinna sig i ett trespråkigt modus (se Grosjean 2008, s. 60). När de når textgenereringsfasen (enligt Wang & Wens modell) och börjar skriva finns det en annan mottagare, i det här fallet engelskläraren som ska läsa och bedöma uppsatsen, som ska vara skriven på engelska. Just i den fasen uppger sig ungefär en tredjedel av informanterna tänka på engelska. Man kan se det som om baspråket för vissa informanter då övergår till att bli engelska. Att inte samtliga informanter uppger sig tänka på engelska under textgenereringsfasen skulle kunna förklaras av att de tänker på svenska medan de formulerar sig ord för ord på engelska.

Förklaringen till att så många trots allt uppger sig tänka på svenska när de

arbetar med en skoluppgift som ska vara på engelska kan ligga i att svenska är det klart dominanta (starkaste) språket för de här informanterna och att deras färdigheter i engelska inte riktigt räcker till. Grosjean skriver att ”bilinguals who are highly dominant in one language may simply not be able to control language mode in the same way as less dominant or balanced bilinguals” och att ”[the weaker language] will simply not be developed enough or active enough to allow them to stay in a monolingual mode” (2008, s. 63).

Ytterligare faktorer som gör svenska till ett starkt språk i den undersökta kontexten är att svenska är skolans basspråk, som talas av all skolpersonal, och att det är samhällets majoritetsspråk. På skolan är svenska även det ämne där eleverna oftast får undervisning i uppsatsskrivning. Detta skulle kunna förklara varför så stor andel av informanterna uppger sig tänka på svenska i tankeaktiviteten *strukturbearbetning*, d.v.s. när de tänker kring styckeindelning. Eftersom de går i en svenskspråkig skola ligger det också nära till hands att de har högre skriftspråklig kompetens i svenska än i sitt andra L1, där de sannolikt totalt sett får mindre skrivträning eftersom de har ett lägre antal timmar i modersmålsundervisningen än i skolämnet svenska. Vi tror således att ett flertal faktorer samverkar och gör svenskan till ett mycket starkt språk i denna kontext: det är majoritetsspråket i Sverige, det är skolans basspråk och informanterna har hög färdighetsnivå i det. Hemspråket, däremot, har enligt våra enkätdata framförallt andra funktioner än vad svenskan har för de här informanterna; det talas företrädesvis i hemmet, med äldre släktingar som inte kan kommunicera på svenska och under vistelser i det tidigare hemlandet.

Som vi tidigare diskuterat har enkäter flera tillkortakommanden: uppgifterna man får är självrapporterade och man kan inte utgå från att de stämmer överens med faktiska förhållanden, d.v.s. i vårt fall, vilka språk som faktiskt används som tankepråk under uppsatsskrivandets gång (se diskussion i Dörnyei 2010). Exempelvis kan vi inte veta huruvida de två informanter som i enkäten uppgav att de tänker enbart på engelska under hela skrivprocessen verkligen gör det; kanske rapporterade de ett önskescenario – något som de tror är fallet. För att lösa den frågan krävs andra typer av data, exempelvis tänka-högt-data, som kompletterar den information som enkäter ger. Ett ytterligare problem med enkäter är att man inte kan säkerställa att informanter förstår exakt vad som efterfrågas, till exempel exakt vad ”*tänker på ordningen i det du ska skriva*” betyder. Man kan heller inte ta för givet att alla

svarar sanningsenligt. Faktum kvarstår dock att resultaten av vår enkätstudie stämmer väl överens med tidigare forskning som utförts i andra kontexter, och att resultaten var förväntade även på teoretiska grunder.

## Slutord

Den här studien visar, om än på basis av ett begränsat antal informanter från en och samma skola, att framförallt bakgrundsspråket svenska uppges användas som tankespråk av nästan samtliga informanter, medan betydligt färre säger sig tänka på hemspråket under uppsatsskrivning på engelska. Svenska och/eller hemspråket uppges användas som tankespråk särskilt i de delar av skrivprocessen då informanterna genererar idéer om uppsatsens innehåll samt när de arbetar med dispositionen. De få informanter i den här studien som tydligast anger att de tänker på sitt hemspråk mötte svenska språket först efter tre års ålder.

Resultaten harmonierar väl med tidigare internationell forskning som visar att skrivande på ett icke infött språk ofta inbegriper elevers fullständiga språkliga repertoar. Detta tyder på att starka bakgrundsspråk på ett naturligt sätt kan spela en viktig roll under tankearbetet som sker medan elever skriver uppsats på ett icke infött språk. Den tidigare forskningen visar även att detta flexibla språkbruk sker på ett naturligt och ändamålsenligt sätt. Eftersom så mycket forskning visar att flerspråkiga elever aktiverar flera av sina bakgrundsspråk när de skriver uppsats vore det intressant att veta huruvida en del elever kan bli hjälpta och stimulerade av att använda sina starkare språk när de tänker kring ett uppsatsämne, disponerar sin text och eventuellt skriver ner stödord inför att de börjar skriva sin text. Bland annat detta avser vi belysa i nästa fas av studien där vi mer ingående studerar de individuella skillnader som enkätmaterialen och även tidigare forskning visat på. Anser sig elever hjälpta av att utföra delar av tankearbetet på sitt eller sina starkaste språk? Vad är det som gör att vissa informanter uppger att de tänker på sitt hemspråk medan andra inte gör det? Har detta med deras identitet att göra? Eller beror det på olikheter i deras språkliga medvetenhet eller språkbehärskning? Vi ser ett behov av svar på dessa frågor (bland många andra), inte minst i dagens svenska, flerspråkiga utbildningskontext.



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## Appendix

### ATT SKRIVA PÅ ENGELSKA – EN UNDERSÖKNING AV TINA GUNNARSSON

Nedanstående frågor är tänkta att användas i min forskning i ämnet engelska vid Lunds universitet. Min forskning handlar om hur elever i årskurs 9 använder olika språk som de kan när de skriver en uppsats på engelska. Svaren på frågorna i den här enkäten förblir anonyma, d.v.s. de kan inte härledas tillbaka till dig som svarar.

Dina svar är viktiga!

1. Är du : Tjej?  Kille?

2. Vilket år är du född? -96  -97  -98

3. Om du är född 98, har du lämnat in lappen med föräldrars samtycke till mig?

Ja  Nej  Nej, jag har redan fyllt 15

4. I vilket land föddes du?

Sverige <input type="checkbox"/>	Libanon <input type="checkbox"/>	Syrien <input type="checkbox"/>
Danmark <input type="checkbox"/>	Irak <input type="checkbox"/>	Makedonien <input type="checkbox"/>
Serbien <input type="checkbox"/>	Ungern <input type="checkbox"/>	Bosnien <input type="checkbox"/>
Kosovo <input type="checkbox"/>	Kroatien <input type="checkbox"/>	Thailand <input type="checkbox"/>
Albanien <input type="checkbox"/>	Annat: .....	

5. Om du föddes i annat land än Sverige, hur gammal var du när du kom hit?

Ålder: .....

6. Vilket eller vilka språk har du talat sedan du föddes? Om du väljer mer än ett språk bland alternativen nedan, ringa då in det språk som du kan bäst.

Svenska	<input type="checkbox"/>	Makedonska	<input type="checkbox"/>	Albanska	<input type="checkbox"/>
Arabiska	<input type="checkbox"/>	Serbiska	<input type="checkbox"/>	Bosniska	<input type="checkbox"/>
Danska	<input type="checkbox"/>	Ungerska	<input type="checkbox"/>	Thailändska	<input type="checkbox"/>
Persiska/Farsi	<input type="checkbox"/>	Annat: .....			

7. Vilka språk har dina föräldrar talat sedan de föddes? Kryssa i mer än ett alternativ om det behövs.

Svenska	<input type="checkbox"/>	Makedonska	<input type="checkbox"/>	Albanska	<input type="checkbox"/>
Arabiska	<input type="checkbox"/>	Serbiska	<input type="checkbox"/>	Bosniska	<input type="checkbox"/>
Danska	<input type="checkbox"/>	Ungerska	<input type="checkbox"/>	Thailändska	<input type="checkbox"/>
Persiska/Farsi	<input type="checkbox"/>	Annat: .....			

8. Har du någon gång bott mer än 1 år i ett annat land än Sverige?

Ja  Nej

Om ja, vilket land: .....

9. Brukar du tillbringa somrarna i något annat land än Sverige?

Ja, nästan varje sommar  Nej, nästan aldrig

Om ja, vilket land: .....

10. Vilket språk använder du mest för att prata med de olika personerna nedan. Sätt ett X under rätt språk. Det går bra att sätta mer än ett X på varje rad.

Aktivitet	Svenska	Arabiska	Makedonska	Serbiska	Albanska	Bosniska	Annat
Mamma							
Pappa							
Syskon							
Släktingar							
Kompisar							
Grannar							

Om du har angett ”Annat” var god ange vilket/vilka språk:

.....

11. Vilka språk lär du dig i skolan?

Svenska  Tyska  Mandarin

Engelska  Spanska  Franska

Jag deltar i modersmålsundervisning: .....

12. Känner du att du har nytta av dina olika språk i skolan?

Ja  Nej

Om ja, på vilket sätt: .....

13. Finns det något språk som du känner att du inte får använda så mycket som du vill i skolan?

Ja  Nej

Om ja, vilket och varför: .....

14. Vilket språk tänker du på/pratar du med dig själv på när du gör följande saker? Sätt ett X under rätt språk. Det går bra att sätta mer än ett X på varje rad.

Aktivitet	Svenska	Arabiska	Makedonska	Serbiska	Albanska	Bosniska	Annat
Räknar							
Memorerar ett telefonnummer							
Tränar/motionerar							
Pluggar							
Drömmer							

Om du har angett "Annat" var god ange vilket/vilka språk:

.....

15. Vilket språk tänker du på när du skriver på engelska?  
Kryssa i mer än ett alternativ om det behövs.

Svenska  Makedonska  Albanska

Arabiska  Serbiska  Bosniska

Danska  Ungerska  Thaiändska

Persiska/Farsi  Annat: .....

16. När man skriver en uppsats på engelska utför man olika typer av aktiviteter. Vilket språk tänker du på när du gör dessa aktiviteter? Sätt X för det/de språk du använder för varje aktivitet. Det går bra att sätta mer än ett X på varje rad.

Aktivitet	Svenska	Arabiska	Makedonska	Serbiska	Albanska	Bosniska	Engelska	Annat
Funderar på instruktioner								
Kommer på saker att skriva om								
Tänker på ordningen i det du ska skriva								
Tänker på strukturen (inledning, mitt, avslut)								
Sätter pennan till pappret och skriver								

Om du har angett ”Annat” var god ange vilket/vilka språk:

.....

17. Hur bra tycker du att du kan dina olika språk? Skriv språket på linjen och ange hur bra du kan just det språket genom att ringa in en siffra mellan 1 och 5, där 5 betyder att du kan språket riktigt bra och 1 betyder att du inte alls kan det bra.

Språk:	Inte alls bra	Ganska bra	Bra	Mycket bra	
_____	1	2	3	4	5
_____	1	2	3	4	5
_____	1	2	3	4	5
_____	1	2	3	4	5
_____	1	2	3	4	5

18. Vilket betyg fick du i engelska HT 2012?

A  B  C  D  E  F  Streck

19. Finns det något mer du tycker jag borde veta om dina skrivvanor i engelska? Skriv gärna här:

.....

.....

.....

.....

Jag ger härmed mitt samtycke till att mina svar används för forskningsändamål.

Tack för att du har tagit dig tid att svara på mina frågor!

.....

Tina Gunnarsson





**MULTILINGUAL STUDENTS' USE OF THEIR LINGUISTIC  
REPERTOIRES WHILE WRITING IN ENGLISH:  
A TRIANGULATION STUDY OF SIX INDIVIDUALS**

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**1. Introduction**

The role of the L1 and other previously learned languages in the processes of learning and teaching non-native languages is a major current concern in L2 research (DiCamilla & Antón 2012; Hall & Cook 2012; Hélot & Ó Laoire 2011; Levine 2011; Scott & de la Fuente 2008; Turnbull & Dailey-O'Cain 2009; Velasco & García 2014). When it comes to writing in a non-native language, numerous studies have shown that the vast majority of individuals naturally use their L1 as a language of thought (Cenoz & Gorter 2011; Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; van Weijen et al. 2009; Wang & Wen 2002), and others have shown beneficial effects of using the L1 as a resource when engaging in L2 writing tasks (DiCamilla & Antón 2012; Velasco & García 2014). Even though recent research has gone beyond bilinguals and focused also on L3 and L4 writing (Cenoz & Gorter 2011; Tullock & Fernández-Villanueva 2013), there is a notable lack of studies of school-age individuals with a migrant background, typically bilinguals of the majority language spoken in their new home country and a minority language, usually spoken in the home rather than at school.

The present study intends to fill this gap by exploring whether and for what purposes 15-16-year-old students in Sweden draw on their complete language repertoires when working individually on a writing task in English, their L2, under exam-like conditions. The study focuses on quantitative and qualitative data from six individuals who are classroom learners of English as L2. Four of them are regular users of three languages at school (Swedish, Bosnian or Macedonian and English, their L2). The remaining two participants were included as base-line data; they grew up as monolingual speakers of

Swedish, encountering English as their L2 at school. All six participants were in the final year of compulsory school in Sweden, attending a mainstream Swedish school in an urban area.

This paper begins with a review of research on multilingual students writing in a non-native language, focusing on the use of their language repertoires. Then follows a description of the Wang and Wen (2002) model of the L2 writing process, which was used to analyze the data of the present study. Using a questionnaire, think-aloud and retrospective interview data, the use and function of the L1(s) by the six participants in the process of writing a narrative essay in English are then mapped onto the Wang and Wen model. The analysis involves a further elaboration of the Wang and Wen model, revealing individual differences with most of the participants using English only to read (their own text) and to formulate their own text, with the L1(s), almost exclusively Swedish, being used when verbalizing their own, creative thought. All participants used their languages for somewhat different functions, unanimously expressing the benefits drawing on all their previously learned languages, particularly when engaging in linguistic problem-solving.

## **2. Previous empirical work**

Multiple studies of L2 writing have shown that the L1 is activated as a language of thought by the vast majority of participants when writing in L2 (Cumming 1989; Manchon, Roca De Larios & Murphy 2000; Murphy & Roca de Larios 2010; Sasaki 2000; Uzawa 1996; van Weijen et al. 2009; Wang 2003; Wang & Wen 2002) and in the L3 or L4 (Cenoz & Gorter 2011; Jessner 2006; Tullock & Fernández-Villanueva 2013). The L1 has been found to be used when students are experiencing a lexical gap in the target language (Jessner 2006; Murphy & Roca de Larios 2010; van Weijen et al. 2009; Wang 2003) and as a strategy to perform certain tasks, such as back-translating and rehearsing, while writing (Velasco & García 2014). The results of these studies in terms of the amount of L1 use, the purpose of the L1 when used as a language of thought as well as differences in text type and the role of proficiency in the target language will be detailed in the following section.

## **2.1. Amount of L1 use**

Studies focusing on L1 versus L2 use in L2 writing when thinking aloud have all shown that the L1 is used to some extent regardless of proficiency or text type (Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; Wang 2003; Wang & Wen 2002). In the study of 16 Chinese university students by Wang and Wen (2002), the L1 (Chinese) was found to be present as a language of thought in 31 out of a total of 32 think-aloud protocols (two for each informant). For the narrative task in their study, 6 students used the L1 as a language of thought for less than 25% of the think-aloud protocol (henceforth TAP), 7 used the L1 for 25-50% of the TAP, while 3 used the L1 for 50-75% of the TAP.

This result agrees with the study by Murphy and Roca de Larios (2010) of 7 Spanish-speaking students aged 23 to 24 who had completed a 5-year university degree in English. They found three types of profiles based on their TAPs when writing in English. There was one participant who never employed the L1 (Spanish), four who used the L1 only sporadically and two who were frequent users of the L1.

Similarly, in the study of 10 participants aged 16-17 writing in L4 English with L1s either Spanish (3), Catalan (3) or German (4) by Tullock and Fernández-Villanueva (2013), one participant used the L1 as a language of thought only to the extent of 0.5%, while another used the L1 as a language of thought for 79.1%. Even though only 4 out of the 10 participants in the study had German as their L1, all participants employed German as a language of thought to varying degrees, which was explained by German being the medium of instruction at the school.

## **2.2. Purposes of L1 use**

The purposes of using the L1 listed in previous studies are: to generate ideas or pretext for the content, to plan, organize and evaluate or revise the text being produced (Tullock & Fernández-Villanueva 2013; Wang & Wen 2002) and to perform lexical searches (Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; Wang 2003).

For the 20 first-year English majors in van Weijen et al's (2009) study, the L1 Dutch was used for thinking more specifically when engaging in self-instruction (on average

45%) and metacomments<sup>1</sup> (on average 43%) but less so for structuring (19%) and generating ideas (14%).

The study of L4 writing by Tullock and Fernández-Villanueva (2013) showed that out of the 111 lexical searches the ten participants made while writing in English, 104 were made using more than one background language for each search (81 were bilingual lexical searches, 22 trilingual and 1 quadrilingual). It was also found that the number of lexical searches made was relative to proficiency, i.e. the more proficient the participant was in English the fewer lexical searches were made.

### **2.3. L1 use and proficiency level**

While some studies of L2 writing report that the language of thought will gradually shift from L1 to more L2 with increased L2 proficiency (e.g. Wang & Wen 2002), other studies suggest that the L1 will be employed as a language of thought regardless of proficiency (Murphy & Roca de Larios 2010; Sasaki 2000; Wang 2003; Tullock & Fernández-Villanueva 2013). According to van Weijen et al. (2009), the use of the L1 will vary for each individual writer for each writing activity. The same study reported a relation between general writing proficiency and language of thought, suggesting that participants with high general writing proficiency tended to think more in the L2, whereas participants with low general writing proficiency were more likely to use the L1.

### **2.4. L1 use and text type**

Much of the discussion in the empirical research literature has been devoted to text type and how this may influence the language of thought of the writer. A range of different writing tasks and study designs have been employed, such as letting the participants write similar tasks in different languages (Cenoz & Gorter 2011; Uzawa 1996; van Weijen et al. 2009), to writing one argumentative and one narrative task (Murphy & Roca de Larios 2010; Wang & Wen 2002), an informal letter and an argumentative essay (Wang 2003) or a letter, a summary and an argumentative essay (Jessner 2006). Two studies showed that the L1 was used to a greater extent in narrative tasks (Murphy

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<sup>1</sup> Metacomments are referred to in van Weijen et al. as, "Reflections on the writing process as a whole or comments on the assignment and sources (2009:240).

& Roca de Larios 2010; Wang & Wen 2002) as the participants' ideas and world knowledge may be stored in the L1 in their long-term memory (Wang & Wen 2002). One study (Wang & Wen 2002) revealed that the use of a picture prompt triggered the L1 to be used more actively as a language of thought, whereas a written prompt in the target language English (L2) elicited more L2.

### **2.5. Studies of bi- and trilingual writers**

In the study by Wang and Wen (2002), 16 Chinese university students of English (aged 18 to 22) at four different levels in Chinese higher education (4 freshmen, 4 sophomores, 4 juniors and 4 seniors who had each 8 years of English studies prior to entering university) used both languages (L1 Chinese and L2 English) in 31 out of 32 think-aloud protocols (2 protocols per participant). This shows that the L2 writers in this study used their L1 as a resource for thinking while composing in their L2. Wang and Wen (2002) applied the composing process model of Flower and Hayes (1989) but modified it to better capture the composing processes engaged in by their L2 users. Results showed that the participants tended to use more L1 as they were generating ideas for content and organizing these ideas as well as controlling their writing process (e.g. reading through their text to double-check, controlling time and word limit etc.), while the L2 was used mainly to examine the task (i.e. writing prompt which was in the L2) and when generating text in English. Although the participants in this study spent most of their time text-generating (63.5-68.5% of the entire protocol data for both tasks) and idea-generating (23% for both tasks), idea-organizing and process-controlling only accounted for between 2 and 4.5% of the protocols for both tasks.

Equally, L3 and L4 writers have been shown to rely on their previously learnt languages when writing in English (Jessner 2006; Tullock & Fernández-Villanueva 2013) and it has been suggested that “switching between languages is part of their multilingual identity” (Cenoz & Gorter 2011, p. 366). Studies suggest that the multilingual's languages are activated simultaneously (Jessner 2006) for different purposes such as lexical retrieval, evaluating the text and applying grammatical structures from L2 or L1 (Cenoz & Gorter 2011; Tullock & Fernández-Villanueva 2013) and that weaving in and out of the different languages appears to be done rather effortlessly (Tullock &

Fernández-Villanueva 2013). In their study of 10 multilingual students aged 16 to 17 in Cataluña, Spain, Tullock and Fernández-Villanueva (2013) found that the majority of the participants (8 out of 10) resorted to thinking aloud in their L1 (either Spanish, German or Catalan) while writing in their L4 (English), but that all ten participants also used the school language, German (which was either the L1, L2 or L3 for the participants), when generating ideas for the content. Tullock and Fernández-Villanueva suggest that daily contact with a language may be a good indication as to whether or not the specific language is activated during the writing process in English.

Similarly, Cenoz and Gorter's (2011) study of multilingual teenage students (mean age 14.6 years) in the Basque country in Spain showed that these students made use of their background languages whenever they encountered difficulties such as lexical gaps, regardless of whether they were writing in their L1 (either Basque, Spanish or both), their L2 (either Basque or Spanish) or their L3 (English).

Similarly, in her study of multilingual university students of English as their L3, Jessner (2006) showed that the participants searched for missing words using their complete linguistic resources (German L1/L2 and Italian L1/L2) and once a match was found, would compare the word to the equivalent word in the other languages to double-check its suitability. Even though the instances in which the participants used two languages for an ideational unit<sup>2</sup> in the think-aloud protocols far outnumbered the instances where three languages were used (33 to 188), Jessner still concluded that her results clearly show that participants tend to find solutions to their linguistic challenges such as lexical gaps by using their complete language repertoires.

## **2.6. Individual differences**

Individual differences between participants within the same level of proficiency was one of the aspects examined in Murphy and Roca de Larios' (2010) study of 7 university graduates of English in Murcia, Spain, where one participant never used the

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<sup>2</sup> By 'ideational unit' I refer to Gee's (1999) definition of *speech spurts*, which he defines by stating that they "contain one piece of information (and, thus, are often called 'idea units') and contain one intonational focus (one major pitch change), creating either a final or not final intonation contour (and, thus, are called 'tone units')" (Gee 1999:212).

L1 (Spanish) while writing in L2 (English) whereas another used the L1 for every lexical search made. In their study, all but one student used their L1 to find the missing words in their L2. Individual differences were also observed in the study by van Weijen et al. (2009), where the L1 was used when thinking aloud to varying degrees (0 to 100% for self-instruction, goal setting, structuring and metacomments) among the 12 BA English majors aged 18 years and 10 months on average with L1 Dutch.

To summarize, previous research has established that the L1 is used both when students write in an L2 (Murphy & Roca de Larios 2010; van Weijen et al. 2009; Wang 2003; Wang & Wen 2002) and in an L3 (Cenoz & Gorter 2011; Jessner 2006) or L4 (Tullock & Fernández-Villanueva 2013). There are several purposes for using the previously learnt languages, such as finding missing words, evaluating the text and coping with the demands of the task. These results seem to hold regardless of whether the L1 and L2 (L3 etc) are typologically close or not (e.g. L1 Dutch and L2 English in van Weijen et al. 2009; L1 Chinese and L2 English in Wang & Wen 2002).

### **3. A model of the writing process**

In order to build on the considerable amount of previous research on the use of the L1 in L2 writing, the present study uses the Wang and Wen model of L2 writing (2002) as the basis for analyzing the data. The model builds on the Flower and Hayes model of L1 writing (1981), modified by Wang and Wen, as it was considered too linear. Wang and Wen (2002) distinguished the following five composing activities in their think-aloud data from Chinese university students who were writing two essays while thinking aloud in the language of their choice: *task-examining (1)*, *idea-generating (2)*, *idea-organizing (3)*, *process-controlling (4)* and *text-generating (5)*. Task-examining refers to the stage at which the participant processes the writing prompt for the task. Idea-generating pertains to the conceptualization of ideas for the content; idea-organizing to the order in which to use these ideas, while process-controlling refers to structuring the text, i.e. paragraphing, punctuation and word limit etc. Finally, text-generating refers to the stage where pencil is put to paper (or fingers to keys) and the actual writing commences.

Their results showed the task-examining and text-generating activities to be 'L2 dominant', i.e. more L2 than L1 was used by participants when thinking aloud, whereas the remaining three activities, idea-generating, idea-organizing and process-controlling, were 'L1 dominant', i.e. more L1 than L2 was used.

## **4. The study**

### **4.1 Aim and research questions**

The aim of this study is to gain a deeper understanding of the extent to which and for what purposes six multilingual 15-16-year-old students use the different languages they know as language(s) of thought while writing an essay in English, their L2. To reach this aim the following research questions were formulated:

- 1) Which of their languages do the six participants use while writing a narrative in English under exam-like conditions?
- 2) What functions do the different languages have while the participants are composing a text in English?
- 3) To what extent do participants feel helped by using other previously learned languages while writing?

To address these questions, six students in year nine at a secondary school in an urban area in Sweden were recruited<sup>3</sup>. They were drawn from a larger sample of participants used to initiate this project (Author et al. 2015). The six participants volunteered to write 4 narrative essays each (a total of 24 essays) on topics from the national test in English for year-9 students. The first three essays were written under three different think-aloud conditions: essay 1: think aloud in any language of their choice; essay 2: think aloud in English; essay 3: think aloud in Swedish. Essay four was written without thinking aloud, but was immediately followed by a retrospective interview. By the time the retrospective interview was held, participants thus had experience from thinking aloud under three different conditions as well as from writing one essay without having

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<sup>3</sup> As compensation for their involvement in the study the participants received feedback on their essays prior to sitting the national test in English in spring 2013.



to think aloud. Due to space and time constraints, the present study examines think-aloud data for essay 1 and the retrospective interview data.

## **4.2 Method**

### **4.2.1 Participants**

Table 1 outlines the participants in terms of gender, languages spoken, and grades awarded on two of the essays written for the purpose of the present project. For the purpose of anonymity, the participants have been given fictitious names. The first letter of their names corresponds with the first letter of their L1 or one of their L1s. Belma and Benjamin are simultaneous bilinguals of Bosnian and Swedish; Maja and Marko are simultaneous bilinguals of Macedonian and Swedish; Sara and Sofie are the monolingual Swedish-speaking participants.

<b>Participant</b>	<b>Gender</b>	<b>Languages</b>	<b>Language Domains</b>	<b>Language Function People</b>	<b>Grade on 1<sup>st</sup> essay</b>	<b>Grade on 4<sup>th</sup> essay</b>
Belma	Female	Swedish – from birth Bosnian – from birth English – from age 8 German – from age 12	Swedish – school, community, home Bosnian – school (40 min/week), home	Swedish: teachers, community members, family, neighbors, friends Bosnian: mother tongue teacher, family, relatives, neighbors, friends	E essay	E+ essay
Benjamin	Male	Swedish – from birth Bosnian – from birth English – from age 8 German – from age 12	Swedish – school, community, home Bosnian – school (40 min/week), home	Swedish: teachers, community members, siblings, relatives, neighbors, friends Bosnian: mother tongue teacher, parents, relatives, friends	E+	C-
Maja	Female	Swedish – from birth Macedonian – from birth English – from age 8 Spanish – from age 12	Swedish – school, community, home Macedonian – school (40 min/week), home	Swedish: teachers, community members, family, relatives, neighbors, friends Macedonian: mother tongue teacher, family, relatives, friends	D+	C+
Marko	Male	Swedish – from birth Macedonian – from birth English – from age 8 German – from age 12	Swedish – school, community, home Macedonian – school (40 min/week), home	Swedish: teachers, community members, mother, siblings, neighbors, friends Macedonian: mother tongue teacher, father, relatives	C+	B-
Sara	Female	Swedish – from birth English – from age 8 German – from age 12	Swedish – school, community, home	Swedish: teachers, community members, family, relatives, neighbors, friends	C	B-
Sofie	Female	Swedish – from birth English – from age 8 Spanish – from age 12 German – from age 14	Swedish – school, community, home	Swedish: teachers, community members, family, relatives, neighbors, friends	E+	E+

Table 1. The participants

As can be seen in Table 1, Belma, Benjamin, Maja and Marko attended mother-tongue tuition in respectively Bosnian or Macedonian in school 40 minutes per week<sup>4</sup>. All six had been receiving instruction in English since the age of 8 (year 2).

#### **4.2.2 Data**

Triangulation was achieved through the use of a) a questionnaire, b) think-aloud data and c) retrospective interview data. **The questionnaire** was used to gain self-reported data addressing research questions 1 and 2 (for full results of the questionnaire data, cf. Author et al. 2015). All three procedures were administered by the author.

**Think-aloud data** were used as a complement to the questionnaire, allowing for data gained while participants were writing essay 1. To familiarize participants with the technique of thinking aloud, a short trial session was held with each participant prior to their first TAP. In this session, the method was first explained to the participant and he/she then moved on to try the method by thinking aloud while formulating a text about his/her hobbies. Special care was taken to correct them if they started to explain their thoughts, as this would become an extra burden during the actual writing process (Ericsson & Simon 1980; Leow & Morgan-Short 2004). Once the participants were familiar with thinking aloud, they chose a signal (in all six cases a popping sound) to serve as a reminder whenever there was a longer pause in the TAP. Each participant was then seated in a small room in their school alone with paper, pen and essay prompt. The author remained on the other side of a wall, ready to provide assistance or use the reminder signal if needed.

**The retrospective interview:** Following the fourth and final essay, each participant was interviewed individually with all four essays laid out on the table in front of him/her to help them remember their writing process. An interview guide was used including questions concerning the five composing activities identified by Wang and Wen (2002). The guide was used in order to establish the function and proficiency of the different languages according to the participants themselves, while at the same time allowing space for follow-up questions when answers needed further clarification.

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<sup>4</sup> Mother-tongue instruction is provided as long as there is a minimum of five students for each language in the same municipality, and provided it is possible to recruit a teacher.

### 4.2.3 Writing Task

The writing task used for this study was the essay part of the national test for English from 2009. The prompt is what is known as a recount, as it elicits a narrative text with personal elements (Gibbons 1991). This task was chosen to enhance ecological validity<sup>5</sup>. It was entitled “Crossroads” and provides five bullets with topics to choose from: “what to study and work with”, “where to live”, “family and friends”, “spare time activities” and “politics, religion, the environment”. At the time of data collection, the participants were busy preparing for the test for 2013, which they were about to sit in just a few weeks time. Since the task involved thinking aloud as well as writing the essay, participants were permitted extra time if needed (the normal time-limit is 80 minutes). Two experienced English teachers at the school graded all four essays independently of each other in a blinded fashion. Whenever there was a lack of agreement as to the grade the essay in question was discussed using the grading criteria<sup>6</sup> for support until agreement on a grade was reached. The grades awarded to the six participants for essays 1 and 4 are provided in Table 1.

### 4.2.4 Transcription conventions and coding

All TAPs and retrospective interviews were audio recorded using a small Dictaphone. The files were then transcribed verbatim following the transcription conventions of Wang and Wen (2002) using three dots for pauses, underlining the verbalizations the participant made while writing, using quotation marks for the text from the writing prompt, italicizing the words produced in the L1s and using brackets to explain things the participant did (such as singing). Laughter, humming as well as sighing (using *ugh*) and hesitating (using *uhm*) were included in the transcripts, but left out of the final word count as they cannot be assigned to a specific language.

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<sup>5</sup> The term ecological validity “involves maintaining the integrity of the real-life situation in the experimental context while remaining faithful to the larger social and cultural context” (Schmuckler 2001:421).

<sup>6</sup> The national tests come with specific grading criteria the teachers should follow when grading. These grading criteria are in turn based on the national curriculum for English. Previously used tests and grading criteria can be found online at the following address:

[http://nafs.gu.se/prov\\_engelska/exempel\\_provuppgifter/engelska\\_ak9\\_exempeluppg](http://nafs.gu.se/prov_engelska/exempel_provuppgifter/engelska_ak9_exempeluppg)

Once identified, segments from the TAPs were coded for each of Wang and Wen's (2002) five composing activities and for language (Bosnian, Macedonian, English, Swedish). To establish intercoder-reliability, the author and an experienced linguist independently coded two think-aloud-protocols, yielding agreement for 89% of the cases. The 11%, which were coded differently by the two coders, were discussed until agreement was reached. The author then proceeded to code the remaining TAPs. Once all TAPs had been coded, the total number of words for the protocols as well as for each individual composing activity was calculated. The results of this analysis will be the focus of the next section.

## **5. Results**

### **5.1 Which of their languages do the participants use while writing in English?**

#### **5.1.1 Questionnaire**

In the questionnaire, which was filled in prior to writing the essays, the participants reported which language(s) they use when engaged in each of the five composing activities. Table 2 shows that the combination of Swedish and English is most frequently reported as the languages of thought used, followed by Swedish only, and then English only. Three of the participants reported that they transition to thinking in English only when text-generating, while the other three say that they either use Swedish only, Swedish and English, or Swedish, English and Bosnian. Belma and Benjamin are the only simultaneous bilinguals who reported using their other L1 (Bosnian) in the questionnaire, Belma for task-examining, idea-generating and idea-organizing and Benjamin for idea-generating and text-generating.

Participant	Task-examining	Idea-generating	Idea-organizing	Process-controlling	Text-generating
Belma	Swe/Ser <sup>7</sup> /Bos	Swe/Ser/Bos	Swe/Ser/Bos	Swe	Swe
Benjamin	Swe/Eng	Swe/Bos/Eng	Swe/Eng	Swe	Swe/Bos/Eng
Maja	Swe/Eng	Swe/Eng	Swe/Eng	Swe/Eng	Eng
Marko	Swe/Eng	Swe	Swe/Eng	Swe/Eng	Eng
Sara	Swe/Eng	Swe/Eng	Swe/Eng	Swe/Eng	Swe/Eng
Sofie	Swe	Swe/Eng	Swe	Swe/Eng	Eng

Table 2. Language of thought during the five composing activities according to the questionnaire

### 5.1.2 Think-aloud protocols

Figure 1 provides a breakdown of the languages used by each participant pertaining to the entire think-aloud protocol, i.e. how much of the protocol was produced in the other L1 (i.e. Bosnian or Macedonian), in Swedish and in English in terms of percentages of the total number of words produced during the think-aloud session. As shown in Figure 1, the use of English ranges from 31.4% (Sofie) to 99.4% (Marko) and the use of Swedish ranges from 0.6% (Marko) to 68.6% (Sofie), while the other L1 (Bosnian) is only present to the extent of 8.5% for one single participant (Belma).

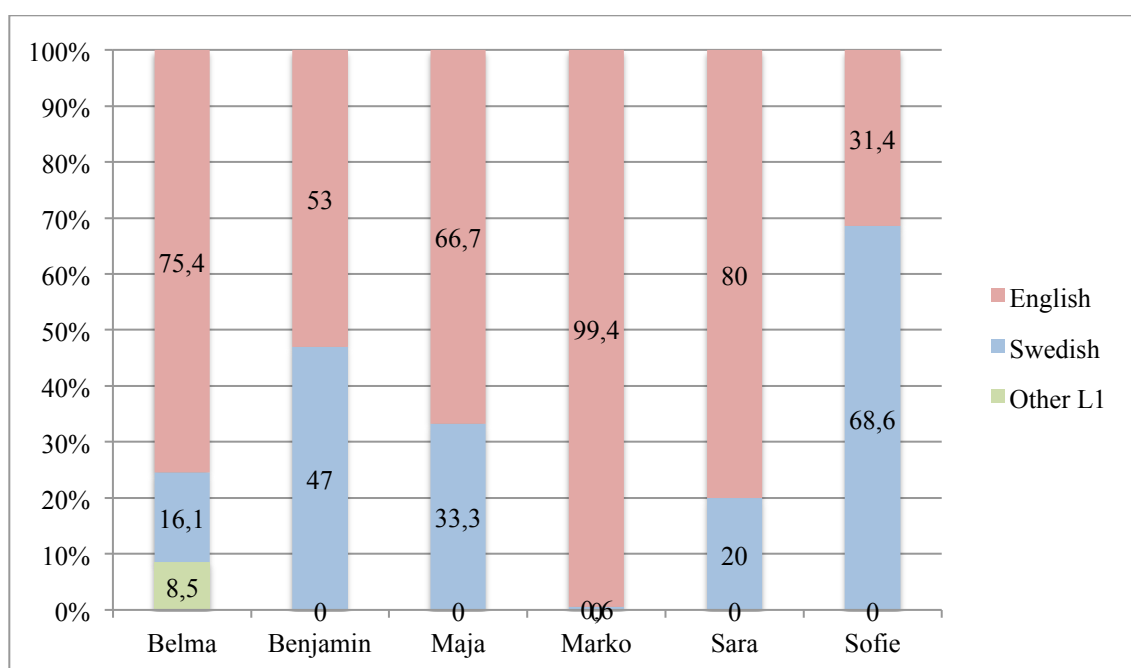


Figure 1. Percentages of words in different languages used for thinking in TAP

<sup>7</sup> Serbian, Bosnian and Macedonian are three typologically close languages and Belma refers to all three languages in her questionnaire. These languages were also present in her responses regarding different languages of thought in activities in her spare time (such as calculating, memorizing a phone number and exercising). However, in the last open-ended question in the questionnaire she refers to English, Swedish and Bosnian as the languages she uses when writing in English.

As can be seen in Figure 1, five participants used more English than Swedish while thinking aloud, whereas one (Sofie) used more Swedish. Sofie was consequently also the participant who used the least amount of English in her TAP (31.4%) while the other bilingual, Sara, used English to the extent of 80%. Sara, instead, used Swedish as her language of thought for only 20%, making the TAPs of the two L1-Swedish-speaking participants almost mirror images of each other. This reveals two 'high' users of English: Marko (a simultaneous bilingual of Macedonian and Swedish) and Sara (whose L1 is Swedish), two 'intermediate' users of English (Benjamin and Maja), one user of three languages (Belma) and one 'low' user of English (Sofie).

### **5.1.3. Retrospective interview**

The retrospective interview was held individually, immediately following the completion of the fourth essay. It confirmed results from the questionnaire and the think-loud data in that all six participants stated that they use both Swedish and English as languages of thought. Although in his TAP he used English almost exclusively, Marko states in the interview that he normally uses Swedish and English and that the language of thought is always one of the two. Benjamin stated that he uses Swedish and English mainly and sometimes Bosnian. Belma says that she mostly thinks in Swedish and when she transitions to writing in English she starts to think in English. Bosnian is also used, but more seldom she says, which is confirmed by the TAP in which she used her Bosnian to the extent of 8.5%.

As for the two L1-Swedish participants, Sara states, similarly, that she uses both Swedish and English as languages of thought when writing in English. She uses Swedish to come up with ideas, whereas she uses English once she is ready to start writing. Sofie says that she uses both Swedish and English, although she finds Swedish easier to use.

## **5.2. Research question 2: What functions do the different languages have while the participants are composing a text in English?**

### **5.2.1 Questionnaire**

Use of the different languages is now presented for the five composing activities identified by Wang and Wen (2002). The questionnaire reveals that one of the L1s, Swedish, is present in all five activities for all six participants, save one: text-generating (see Table 2). For text-generating, three participants reported that they shift to thinking in English only (Maja, Marko and Sofie). Text-generating is the only activity in which English is used on its own, according to the participants. Swedish is used on its own more frequently and for different activities. Sofie and Belma report that they use Swedish only for two activities each, Belma for process-controlling and text-generating and Sofie for task-examining and idea-organizing. Four of the participants reported using the same language combination (Swedish and English) as languages of thought when both task-examining and idea-organizing (Benjamin, Maja, Marko, Sara). Thus, Swedish is reported to be frequently used, particularly for the purposes of task-examining, process-controlling and idea-organizing.

### **5.2.2. Think-aloud protocols**

Previous research has shown that use of a specific language may be linked to a specific composing activity (Wang & Wen 2002). Therefore, as a preliminary, Figure 2 illustrates the extent to which the participants engaged in the five different writing activities while thinking aloud.



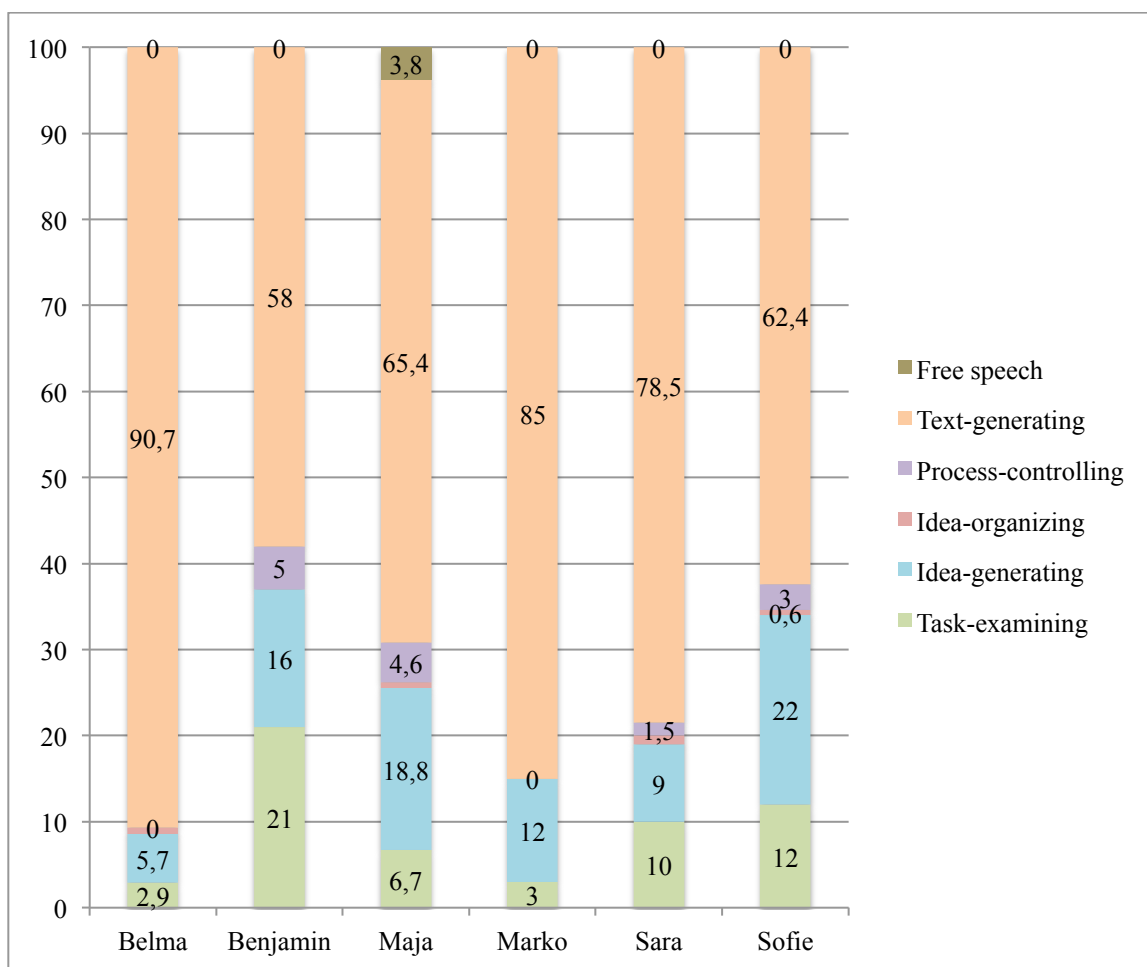


Figure 2. Percentages of composing activities during TAP

Figure 2 shows that all participants mainly engaged in text-generating. Once again, Marko used the greatest proportion of words for this activity (85%), while Benjamin used the least with 58% of his words being dedicated to text-generating. The activity of *free speech* was engaged in only by Maja<sup>8</sup>.

To find out whether a particular language tends to be linked to a particular composing activity, Figures 3-5 were created, each showing the languages employed in terms of percentages of words used by each participant for three of the composing activities (task-examining, idea-generating and text-generating). Figures are not reported for the two remaining composing activities as the participants engaged very little in them (0 to

<sup>8</sup> *Free speech* involves activities that were not related to the writing task, such as singing or Maja stating that she was hungry.

1% for idea-organizing and 0 to 5% for process-controlling). Idea-organizing is the composing activity that Marko and Benjamin did not engage in and in which the other participants hardly engaged in, representing less than 1% of their entire protocols. The languages employed for this activity are Bosnian for Belma, Swedish for Sofie and Maja and mostly Swedish for Sara, with only two words being spoken in English. When they do engage in this activity, it is mainly to elaborate on the order of their ideas as in “nu ändrar jag lite ordning” (*now I’m changing the order a little*) by Sofie and “hur ska vi börja nu då” (*how do we start then*) by Sara. Instead of idea-organizing, the participants tend to generate text in one steady flow without planning the order.

Likewise, the participants hardly engaged in process-controlling at all and the activity was only present in four out of six protocols. While Marko and Belma did not engage at all in this activity, the rest used between 2% (Sara) and 5% (Benjamin) out of their protocol to process-control. When process-controlling was engaged in, it was mainly done in Swedish to metacomment on practical matters such as rewriting things on a clean sheet of paper or stating that they need to read things through to check up.

Results for task-examining are provided in Figure 3, showing the percentages of the entire think-aloud protocol, thereby illustrating the proportion of each activity in relation to the whole TAP.

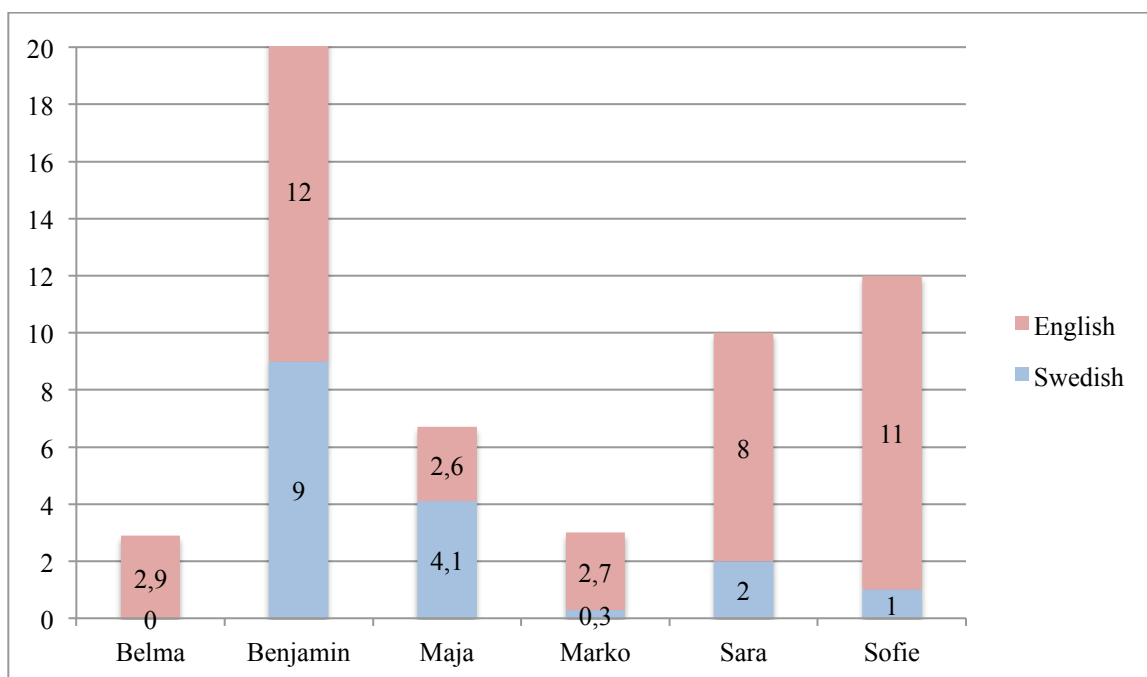


Figure 3. Percentages of words used in different languages for thinking when task-examining

Figure 3 shows the participants using English and Swedish for this composing activity. Whereas Swedish is used to metacomment on the task, the English words verbalized for this activity mainly consist of participants reading the writing prompt. Only Marko and Sara, the 'high' English users, verbalize in English using their own words. Benjamin engages in task-examining the most of all the participants (21% of the TAP). When reading the prompt in English he comments on what he has left to do in Swedish and sometimes transitions into idea-generating, also in Swedish. This is exemplified below, where Benjamin starts by reading part of the prompt in English and then responds by generating an idea in Swedish. Benjamin's exact utterance is provided (a mixture of Swedish and English) with the author's English translation underneath.

Benjamin:

- (1) Where to live...jag har inte tänkt så mycket var jag ska bo och så hära men  
 I haven't given it much thought where I am going to live and such but  
 tror jag flyttar nånstans...  
 I think I will move somewhere...

A similar example is provided in (2) below, where Maja reads the prompt in English (underlined), while adding her own clarifications and metacomments about the task in Swedish as well as ideas of what to write about.

Maja:

- (2) Sometimes you have to choose direction... ok så jag ska skriva...uhm om  
**so I am to write...uhm about**

ett val...kanske jag vill skriva på det sättet vad jag ska göra alltså what to  
**a choice...perhaps I want to write that way what I am going to do that is**

study and work with men spare time activities and family and friends  
**but**

intresserar mig på ett sätt ändå...uhm...ok...svårt val men...då skriver jag  
**also interests me in a way tough choice but...I'll write**

om var jag vill bo...where to live  
**about where I want to live**

These data exemplify the different functions played by Swedish (to metacomment on the task using the participant's own words) and English (to decode/read the prompt, i.e. someone else's words). The English used here may thus be considered 'reading' aloud rather than 'thinking' aloud.

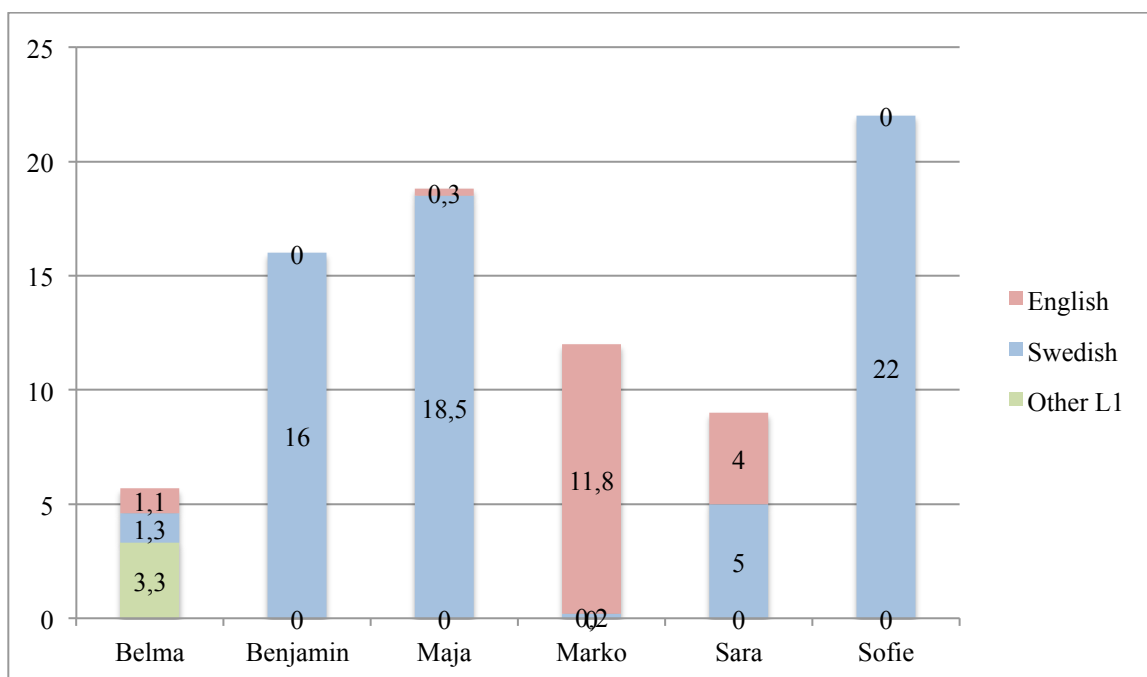


Figure 4. Percentages of words used in different languages for thinking while idea-generating

Figure 4 provides results for the idea-generating activity, showing that the L1 (either Swedish or Bosnian) is employed by all participants. Five of the six participants use mainly their L1(s), while Marko used Swedish only to the extent of 0.2%, consisting of the metacomment “jag vet inte” (*I don't know*). Marko is the ‘high’ English user and unlike the other participants, he verbalizes his own ideas in English when thinking aloud. A typical example of Marko idea-generating in English is illustrated in (4):

Marko:

- (4) to this...I'm planning on maybe starting my own business...the business could be about uhm...maybe...I will say cars or something...cars...and parts...and designing them...

Sofie, the lowest user of English, generates ideas entirely in Swedish, as can be seen in (5):

Sofie:

- (5) en konsekvens med linjen jag har valt... vad kan det vara... jag kanske  
**a consequence with the program I have chosen...what could that be...I might**  
 inte trivs...  
**not feel at home...**

Benjamin and Maja also used more Swedish than English (16 and 18.5% respectively) when generating ideas, making this activity exclusively Swedish for Benjamin and almost so for Maja (with only 0.3% being spoken in English). Sara, on the other hand, either generates ideas entirely in Swedish or entirely in English. In her TAP she has 5 episodes of idea-generating. While two of the episodes are entirely in Swedish, three are entirely in English.

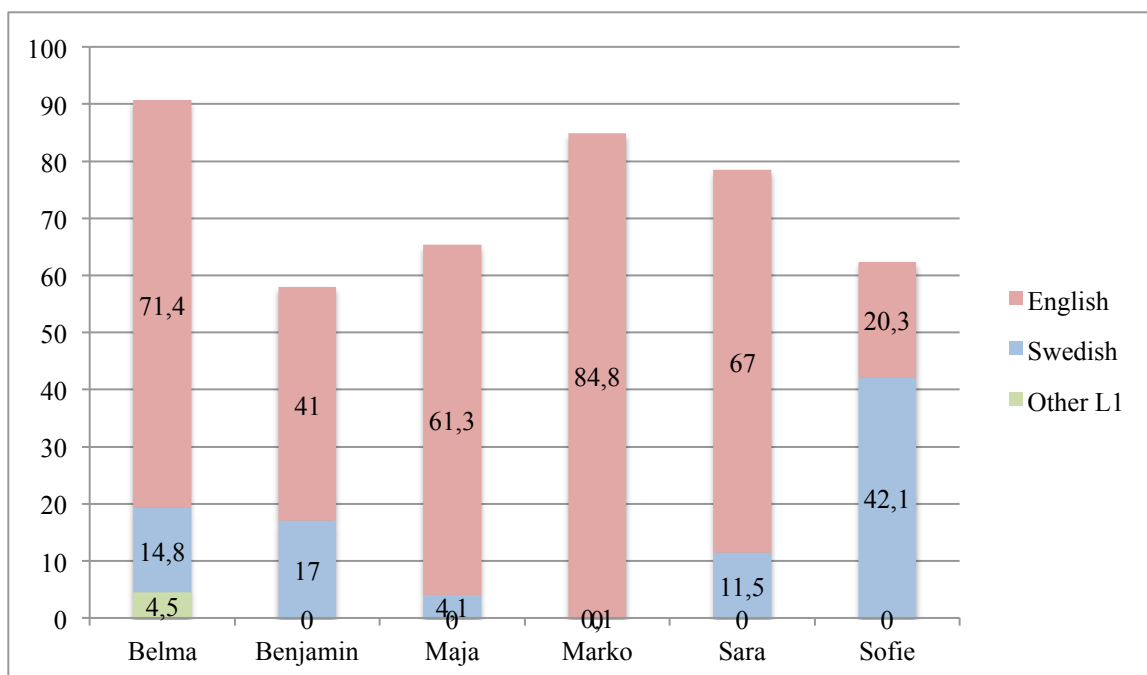


Figure 5. Percentages of words used for thinking in different languages for text-generating

Figure 5 provides the results for text-generating, showing five out of six participants using a greater proportion of words in English than in Swedish. For Marko this is an activity carried out entirely in English apart from one metamerker (“nej” meaning *no*), while the other participants all employ Swedish more.

In order to address research question 2 (the functions of the different languages), Wang and Wen’s text-generating activity warranted further sub-categorization (see Figure 6 below). As the participants are engaged in formulating their essays, careful analysis revealed that they engaged in rather different processes, ranging from decoding

(reading) their own text, to encoding their text to problem-solving, for example resolving spelling problems.

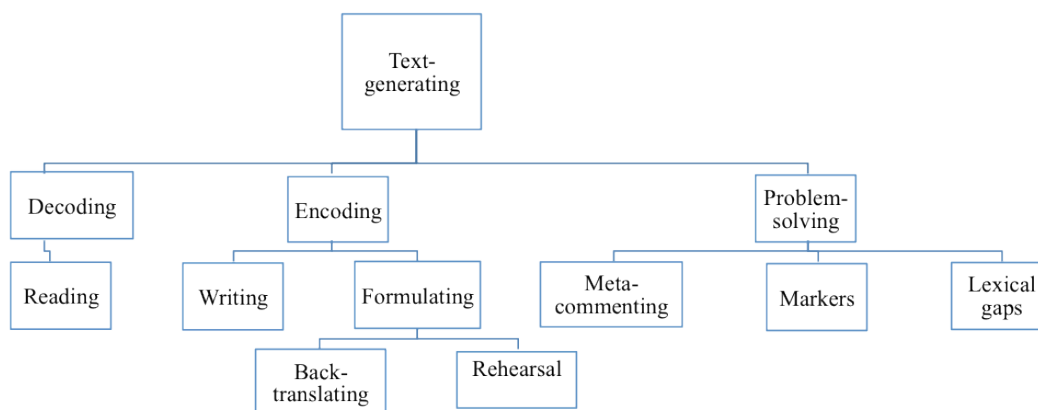


Figure 6. Text-generating with sub activities

The 'encoding' category breaks down into 'writing' (participants are verbalizing what they are writing on paper) versus 'formulating' (participants saying out loud what they are about to write). 'Formulating' is further broken down into 'back-translating' (participants translate word for word, often back and forth between Swedish and English) and 'rehearsing' (different words or phrases are tried out before the most appropriate formulation is written down). 'Decoding' refers to participants reading or re-reading what they have written. Finally, 'problem-solving' refers to moments when they metacomment on their text, solve lexical problems and use metamarkers (immediate interventions signaling a break in the text-generating process). The markers show a need for something to be altered or confirmed with the participants using words such as “vänta” (*wait*) or “nej” (*no*). 'Lexical gaps' is another issue attended to when problem-solving, in which the participants specifically state that they do not know a word in English.

Table 3 shows the text-generating activity divided into encoding, decoding and problem-solving sub-categories explained above, including the frequency, i.e. the

number of episodes in the TAP in which the participants engaged in back-translating, rehearsing, metacommenting and using metamarkers as well as the number of lexical gaps the participants explicitly stated they had during the TAP. The columns on the far right display the total number of words in the TAP as well as in the finished essay.



Participant	Writing		Reading		Formulating		Back-translations		Rehearsal		Meta-comment		Markers		Lexical Gaps (number instead of word count)		Total word count for text-generating (% of TAP)	Total word count for text-generating (%)	Total number of words in TAP	Total number of words in essay		
	E	S	E	S	E	S	E	S	E	S	E	S	E	S	E	S						
																	Words	%				
Belma	192	212	0	29	33	9	0	67	5	0	0	11	3	0	3	3	0	0	556	90.7	613	284
Benjamin	204	237	0	0	70	1	43	73	10	19	2	23	115	11	0	31	6	19	847	58	1462	146
Maja	960	953	1	0	670	1	14	9	2	24	0	44	67	15	0	45	21	37	2866	65.4	4377	571
Marko	241	181	0	0	648	0	0	0	0	79	0	0	0	0	1	2	0	0	1152	85	1357	355
Sara	483	734	0	0	312	2	19	36	5	5	1	12	204	19	0	20	0	0	1827	78	2337	384
Sofie	134	40	0	0	30	87	0	196	14	0	0	1	52	8	0	4	0	0	544	62.4	872	367

Table 3. Text-generating in the think-aloud protocol

This analysis reveals frequent use of Swedish when metacommenting and using metamarkers, i.e. signaling when something needs to be changed or confirmed in the text. Swedish is also the language used to handle lexical gaps<sup>9</sup>, which is present in two out of the six TAPs. A typical example of a lexical gap and the use of metamarkers can be seen in (6), where Maja uses a meta-marker (“*vänta lite*” meaning ‘*wait a little*’) while writing as she realizes that she doesn’t know how to say ‘the nutcracker’ in English.

Maja:

(6) when I... for the first time... saw...

*vänta lite nötknäpparen hur säger man det på engelska*  
**wait a little the nutcracker how do you say that in English**

85% of the metacomments are in Swedish, the rest in English. The metacomments usually pertain to spelling or the stylistic or grammatical aspects of the emerging text. This can be seen in the example by Sara below, where she starts by reading part of a phrase she has produced (“my best friend”), writes the word ‘loves’ and then realizes that this does not work.

Sara:

(7) my best friend...uhm...loves...

*nej... så kan jag inte skriva...nu missade jag ett ord*  
**no... I can't write that... now I missed a word**

These results show that English is used to formulate text to be written down and to read either the essay prompt or the participant's own text. English is also used the most for formulating and rehearsing, i.e. trying out different words and phrases in English before writing them down. An example of rehearsing can be seen below, where Marko, the

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<sup>9</sup> It should be noted that only lexical gaps that were explicitly stated as such are included in the more fine grained analysis of the text-generating activity in the TAPs, and that more lexical gaps may be included in the substantial amount of back-translating that was done by the participants.

'high' English user, starts by reading back a few words that he has written (“and I can”) and then goes on to *rehearse* in order to select the most appropriate wording to follow.

Marko:  
(8) and I can  
achieve...I can...I can uhm...make it...I can uhm...I can succeed

Table 3 reveals certain individual differences, such as the number of words spent reading by Maja and Sara compared to the other four participants (Maja includes one word in Swedish when she reads as she has translated a movie title in her text). Maja and Sara are the only participants to read through their entire texts before submitting the essays, while the others read short passages here and there to either double check or to aid them in continuing their writing.

Back-translations are present in all TAPs except for Marko, who engages in rehearsing in English to a greater extent than the others. Rehearsing is not engaged in by Belma and Sofie, the two participants with the lowest grades on their essays. Being the ‘high’ Swedish user, Sofie employs Swedish more for formulating her text, both formulating generally, i.e. not directly translating but generating phrases in Swedish which she then loosely translates into English and translating directly through back-translating from Swedish. The formulating Sofie does in Swedish in the text-generating activity is closely linked to idea-generating as she continues passages she has written in English with comments about the content in Swedish. An example of this can be seen below, where she starts by reading back a phrase she has written, writes three more words (separated by three punctuation marks) and then comments in Swedish.

Sofie:  
(9) is that a lawyer have to work often and it takes time  
from...your...spare...time...  
och det är en nackdel med det  
**and that's one of the disadvantages of that**

This last comment in Swedish, however, is part of the formulation process, and she never writes this down. Sofie is also the participant who employs back-translating the

most with 22% (196 words) of her entire TAP being dedicated to this sub-category in Swedish alone. Almost all of her text in English is therefore generated through the use of Swedish.

### 5.2.3 Retrospective interviews

As stated previously, the retrospective interview took place individually immediately after essay 4 had been completed, which was approximately four to five weeks after essay 1. Table 4 below outlines the different functions (in terms of the composing activities outlined above) served by the different languages for all six participants on the basis of the think-aloud data and the retrospective interview data. Functions in small capitals refer to information provided by the participants in the retrospective interview, whereas functions identified in the think-aloud data are in small letters. The table reveals that five out of six participants (all except Sofie) state that their L1(s) are drawn on for solving lexical gaps. Bosnian is used as a language of thought for context-specific idea-generation (memories of events from time spent in Bosnia), whereas Macedonian is reported to be used in lexical searches by Maja.

<b>Participant</b>	<b>Languages used</b>	<b>Main function</b>
Belma	Swedish English Bosnian	LEXICAL GAPS, metacomments, back-translating Writing, reading, formulating CONTEXT SPECIFIC IDEA-GENERATING
Benjamin	Swedish English Bosnian	Lexical gaps, metacomments, idea-generating, back-translating Writing, reading, formulating CONTEXT SPECIFIC IDEA-GENERATING, LEXICAL GAPS
Maja	Swedish English Macedonian	Metacomments, lexical gaps, idea-generating Writing, reading, formulating, metacomments LEXICAL GAPS
Marko	Swedish English	LEXICAL GAPS Writing, reading, idea-generating, formulating, rehearsing
Sara	Swedish English	LEXICAL GAPS, metacomments, idea-generating Writing, reading, idea-generating, formulating
Sofie	Swedish English	Metacomments, idea-generating, formulating, back-translating Writing, reading

Table 4. Language functions according to the INTERVIEW and TAP.

The role of the minority L1, Bosnian, is illustrated by retrospective interview data from Benjamin, a simultaneous Bosnian-Swedish bilingual and an 'intermediate' user of English when thinking aloud:

Benjamin:

- (10) alltså så nu på engelska typ vissa ord är närmare svenskan vissa är  
**well in English like some words are closer to Swedish some are (closer) to**  
bosniskan typ så det här ordet är mer likt bosniska det alltså om jag nu  
**Bosnian like so this word is more like Bosnian that is if I'm now**  
tänker ett ord jag vet inte hur det är på engelska så tänker jag det hur det  
**thinking of a word I don't know what it is in English then I think about that and how it**  
kanske är på bosniska och sen det kanske lät som ett ord på sve engelska  
**might be in Bosnian and then it might sound like a word in Swe<sup>10</sup> English**  
så så man kollar alla ord alla språken så kan jag det bättre så  
**so you check all the words all the languages so I can do it better like that**

In his interview, Benjamin further says that he uses Swedish to process-control as he has been taught how to structure an essay in Swedish class by his Swedish teacher.

Belma, the other Bosnian-Swedish bilingual and 'intermediate' user of English when thinking aloud, makes a similar comment about the function of Bosnian to her:

Belma:

- (11) ja alltså jag skrev ju om min systers bröllop och ja uhm vi har vissa grejor  
**yes like I wrote about my sister's wedding and yes we have certain things**  
som ja liksom innan bröllopet så har man gör man ett bröllop fast på alltså  
**like yes like before the wedding then you have you make a wedding but like**  
på ett muslimskt sätt och då tänkte jag automatiskt på bosniska för att det  
**in a Muslim way and then I thought in Bosnian because its**  
är inom islam och ni svenskar har ju inte det så då tänkte jag på bosniska  
**within Islam and you Swedes don't have that so then I thought in Bosnian**  
och så skulle jag förklara det nu på engelska så översatte det  
**and then I was to explain it in English so translated it**

The two L1-Swedish participants comment on the use of their co-available languages, Swedish and English. According to Sara, one of the 'high' users of English in the TAP, it is easier to think in English when writing in English. When dealing with the instruction she tends to read it in English first, she says, and then uses Swedish to think

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<sup>10</sup> Here the participant starts pronouncing the word 'Swedish' but changes his mind halfway through the word to 'English'.

about what to write. Similarly to the other participants, Sara explains that she transitions to thinking in Swedish when she is at a loss for words in English. Sofie, the ‘lowest’ user of English, says that she mainly uses Swedish while writing in English, but that she also transitions to English when it is time to start writing. This is confirmed in her TAP in which Swedish plays an important role for meta-commenting, idea-generating and also when she is in the formulation process.

### **5.3 RQ3: To what extent do students feel helped by activating other languages they know?**

All six participants stated in the interview that that they feel helped by switching between languages while writing in English. Whereas Marko only responded with a “ja” (yes) to this question, confirming that he does switch between Swedish and English, the other participants gave examples as to why switching is helpful. Five of them (Belma, Benjamin, Maja, Marko and Sara) responded that it is helpful to switch specifically when searching for vocabulary. Out of the five, two (Maja and Benjamin) stated that all three languages are employed for the purpose of lexical retrieval. Sara elaborated on the topic further by stating that Swedish provides a means to have an inner dialogue with herself about problems she is trying to overcome when writing in English. Switching languages therefore becomes crucial to her:

Sara:

- (12) ja det gjorde jag det gjorde det i och med liksom att jag hade inte kunnat  
**yes I did yes it did (help) since I wouldn't have been able to**  
diskutera med mig själv på engelska om ett ord som jag liksom inte kunde  
**discuss with myself in English about a word I could not figure**  
komma på på engelska  
**out in English**

Previous research on student-student dialogues have yielded similar results: the L1 enables students to have a dialogue that may otherwise not be possible (DiCamilla & Antón 2012).

## **6. Discussion and concluding remarks**

The present study has shown that English and Swedish are commonly used as languages of thought. A minority L1 (Bosnian), was only used as a language of thought by one participant, Belma, and only to the extent of 8.5% of her think-aloud data. One participant in particular, Marko - a Macedonian-Swedish bilingual - stands out as being a 'high' user of English (99.5% of his think-aloud protocol was in English). Another participant is a relatively 'high' user of English (80% for Sara). Two are 'intermediate' users of English (66.7% for Maja and 53% for Benjamin) whereas one is a 'low' user of English (Sofie, 31.4%). Similar individual differences have been found in previous studies, i.e. some L2 writers use the target language more as a language of thought than others (Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; Wang & Wen 2002). The frequent use of Swedish as a language of thought (compared to the other L1s, Bosnian and Macedonian) may be explained by the fact that it is the base language of the school; it is the medium of instruction for all subjects apart from foreign languages, and it is used in communication with all school staff except for the mother-tongue teachers. Swedish is also in all likelihood the dominant language of the participants (for the Swedish-L1 participants it definitely is), and it is the language in which they have been receiving literacy instruction. Thus, several factors join forces, giving Swedish a strong presence in the school and in the minds of these participants.

Not surprisingly, all six participants verbalised in English when reading text (either the prompt or their own text) and when formulating their text. Five of the six participants otherwise had a strong tendency to use Swedish as the language of thought for all other purposes. When thinking about the topic and about language problems they encounter, four of the six participants use exclusively Swedish, and one participant used Bosnian in addition to Swedish. The two participants who do idea-generate using English have the highest grades on the two essays that were graded by teachers, suggesting that they are more proficient in English than the other four. This finding agrees with previous research: the higher the L2 proficiency, the more L2 is used as a language of thought.

The text-generating analysis reveals Swedish to be used as a springboard for five of the participants, allowing them to double check and comment on their writing through

metacommenting, to formulate sentences through back-translating and also, for two of the participants to solve lexical gaps in English. The use of the L1 for lexical gaps when writing has also been found in previous studies (Cenoz & Gorter 2011; Jessner 2006; Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; Wang 2003) and is further confirmed in the interview, where five of six participants specifically state that Swedish is used when they are at a loss for words in English.

Bosnian serves two purposes: for Belma to idea-generate and to help her formulate sentences when text-generating. In the interview, both Bosnian speakers stated that Bosnian is used for specific contexts linked to memories obtained through Bosnian, which is consistent with the findings of Friedlander (1990) and Lay (1988).

All participants state clearly and unambiguously that switching languages is helpful and is done naturally during the writing process. Sara even goes as far as saying that thinking in Swedish is inevitable if she is to have a discussion with herself about a lexical gap. This finding agrees with research conducted in the translanguaging framework (e.g. Velasco & García 2014) and with research on student-student dialogues (DiCamilla & Antón 2012), showing that L1 use assists L2 learners when having to speak or write in a non-native language.

These results can be explained by Grosjean's (2008) theory of language mode, which concerns activation of the different languages spoken by bilinguals. According to this theory, one of two (or more languages) is more activated, partly depending on the bilingual's interlocutor. This language is referred to as the base language. The participants in the present study activate and use English when reading the prompt (which was in English) and when writing their text (which has to be in English). When engaging in these activities, there is an interlocutor who requires them to use English (the writer of the essay prompt, and the teacher who will read and grade their essay). Four of the six participants (Benjamin, Belma, Maja and Sara) use Swedish as the base language whenever possible. Whenever they can have a dialogue with themselves, their L1s are possible base languages, as indeed stated in the interview with Sara. Marko, the 'high' English user, on the other hand, uses English as the base language throughout his



think-aloud protocol as he only verbalizes a few single words in Swedish. Sara switches as she idea-generates sometimes in English (i.e. using her own words) and sometimes in Swedish. The higher grades given to Marko and Sara's essays by the teachers may reflect their higher proficiency levels compared to the other four, who use Swedish as the base language. Grosjean (2008, p. 63) says that "bilinguals who are highly dominant in one language may simply not be able to control language mode in the same way as less dominant or balanced bilinguals" and "[the weaker language] will simply not be developed enough or active enough to allow them to stay in a monolingual mode".

The present study has provided further support that previously learned languages are drawn upon by adolescent L2 learners in a natural manner and is found to support them when they are engaged in a complex task such as L2 writing. The study thus supports inclusive classroom language policies, not just of Swedish, but also of the minority languages, typically spoken by students who have migrated to Sweden. The four migrant students had been exposed to Swedish (and Bosnian or Macedonian) since birth, and there is reason to believe that Swedish is their dominant L1, through schooling, in the case of writing, particularly literacy training in Swedish. I see a need to further examine the roles migrant languages play for students who arrive in Sweden post early childhood or as adolescents and who are therefore likely to be dominant in the migrant language rather than in Swedish. Another obvious avenue for further research is to examine whether prompting a language of thought, as in essays 2 (where participants were instructed to think in English) and 3 (where they were required to think in Swedish) of the present study may have an effect on their thinking processes and on the quality of their writing.

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