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A comparative study of Bilingual Section, Bilingual Program and Non Bilingual learners's written production in the region of Madrid Ma Vanesa González Álvarez

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#### Abstract

The question of language proficiency has been widely debated in the bilingual education field in Spain, but there is a need to analyze how Madrid's bilingual project works. My study addresses the issue of written production of Bilingual Section students, Bilingual Program students and Non-Bilingual students in a comparative manner following Ana Martín Uriz et al. (2005)'s approach.

Initially, I have looked at the students' general production, fluency, complexity, lexical variety, grammatical correction, and use of transition words in the three cohorts' compositions. The results show that Bilingual Section learners outperformed their counterparts across all the measures except for lexical variation. Likewise, the Bilingual Program students performed better than the Non-Bilingual group across many of the categories analyzed. However, these differences are not always statistically significant, thus not matching the great difference in number of exposure hours to the FL among the three cohorts.


More specifically, I compared Bilingual Section students' written production in CLIL (Content Language Integrated Learning) and non-CLIL written essays in order to reveal that their writing ability in those two contexts does not differ, as it has been typically stated. The minimal differences found between the EFL and the CLIL essays indicate a greater use of conversational language than was the case for cognitively more demanding academic language, which shows the beneficial effects of CLIL on spoken language.

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## 1. Introduction

Multilingualim is essential in today's society. We need multilingual citizens, not only as a labor necessity, but also as a factor indicating social integration, research and education (Lasagabaster and Sierra 2009). In fact, it is in education "where answers have to be sought for how immigrant populations can be integrated into and served by their host societies, but also for how predominantly monolingual populations can be made fit for the demands of international interaction and cooperation" (Dalton-Puffer and Smit 2007: 7). In this environment of multilingualism, FLs (foreign languages) teaching-learning processes are vital, namely, "the CLIL scheme has grown stronger as a solution" (Lorenzo 2007) in this context to become commonplace due to its effectiveness to improve students' FL skills (Lasagabaster 2008). Rooted in immersion programs in Canada and content-based language teaching like sheltered instruction (Dutro and Moran 2003) and bilingual education in the USA (Pérez Vidal 2007; DaltonPuffer 2007; and Dalton-Puffer, Nikula and Smit 2010), CLIL "refers to situations where subjects (...) are taught through a foreign language with dual-focused aims, namely the learning of content and the simultaneous learning of a foreign language" (Marsh 1999, as cited in Pavlovic and Markovic 2012). Hence, CLIL establishes a balance between content and language learning (Pavlovic and Markovic 2012). Proficiency is supposed to be reciprocally achieved in both the subject matter and the FL (Dalton-Puffer 2007; Coyle et al. 2010; Llinares and Morton 2010; Lasagabaster 2011; Jaímez and López Morillas 2011). However, CLIL is distinctive from other content-based approaches in the sense that "classroom content is not so much taken from everyday life or the general content of the TL culture but rather from content subjects, from academic/scientific disciplines or from the professions" (Wolff 2007: 1516, in Dalton-Puffer 2007: 1).

The broad implementation of CLIL programs across Europe, and especially in Spain, has given way to interesting research, both at the macro and micro levels (Dalton-Puffer, Nikula and Smit 2010). The former refers to reports or principles on how CLIL works in different countries and the latter comprises studies on actual CLIL classrooms or language and content achievement. This study looks at CLIL in its micro level as it compares the writing development of two different groups of CLIL students and one group of non-CLIL learners using Martín Úriz et al.'s (2005) writing measures,
based on Wolfe-Quintero et al. (1998). In the case of one of the CLIL groups, a comparison of language-based and content-based written compositions will be analyzed. As the CLIL classroom has been typically analyzed as a place of interaction and the language this brings with it (Dalton-Puffer and Smit 2007), more related to what Cummins (1984) calls BICS (basic interpersonal communicative skills) or conversational language, the aim of this analysis is to shed some light on the little research carried out so far on the academic written production "or the language of school, literacy, content, and higher learning" (Dutro and Duran 2003: 3) of CLIL students (Whittaker et al. 2011), within CALP (cognitive academic language proficiency) by Cummins (1984, as cited in Madrid and Hughes 2011; Navés 2009).

## 2. Literature Review

### 2.1. Why CLIL?

The implementation of CLIL programs aims at fulfilling socio-economic, sociocultural, linguistic and educational objectives (Eurydice 2006a: 22). Offering students better job prospects and values of cultural tolerance, enabling them to use the FL in real contexts and to acquire content knowledge are basic factors which CLIL is covering. Bearing these objectives in mind, in order to assemble different features of CLIL pedagogies, Coyle (2007) and Coyle et al. (2010) suggest a "4Cs" approach to CLIL. This conceptual outline can highlight CLIL as a mode of instruction (Morton 2010: 97) because it caters for an equilibrium between content (subject matter), communication (language), cognition (learning and thinking) and culture (social acceptance of the self and others) (Pérez Vidal 2007; Morton 2010; Lasagabaster 2011; Spratt 2012; Pavlovic and Markovic 2012). An association between cognition and bilingualism is evident in The Threshold Theory by Cummins (1976) and Skutnabb-Knagas (1979), which says that "the closer the students are to being bilingual, the greater the chance of obtaining cognitive advantages" (Madrid and Hughes 2011: 24). This cognition, as well as culture, could be further enhanced through a genre-based approach (Morton 2010).

The language needed for learning in a CLIL context is thoroughly presented in The Language Triptych which Coyle (2007, 2011) and Coyle et al. (2010) suggest. CLIL learners can highly benefit from this threefold role of language: language of
learning (conceptual language), language for learning (metacognitive skills) and language through learning (language learned through cognitive development, language needed for BICS and CALP) (Coyle 2007, 2011; Coyle et al. 2010; Spratt 2012). This representation promotes language using as language 'for knowledge construction' (Dalton-Puffer, 2007: 65) since "using language to learn is as important as learning to use language -both are requirements" (Coyle et al. 2010: 35) for a systematic CLIL progression. Consequently, a combination of language learning and language using, i.e., "teaching English, not just teaching 'in' English or simply providing opportunities for students to interact with each other in English" (Dutro and Moran 2003: 3), lets CLIL teachers bring together "what is good practice in first language content classrooms and second or other language learning classrooms" (Coyle 2011: 60).

Based on the belief that children are better at acquiring a language implicitly, CLIL encourages the use of language in natural contexts (Dafton-Puffer and Nikula 2006; Dalton-Puffer 2007; Dalton-Puffer and Smit 2007; Lasagabaster 2008), which takes us to the idea of a communicative approach to language teaching (Lasagabaster 2008). Dalton-Puffer (2007) posits that CLIL learners acquire "concepts, topics and meanings which can become the object of 'real communication' where natural use of the target language is possible" (p. 3). Unlike in traditional EFL contexts, CLIL promotes learning the language of the street in a formal context, thus creating a "language bath" (Dalton-Puffer 2007).

It is "in real communicative situations" that "language learning takes place in a more meaningful and efficient way" (Lasagabaster 2008: 32). CLIL is then linked to experiential views of SLA by merging meaningful activities and meaningful academic content, therefore bringing about authenticity (Lorenzo 2007). Likewise, "the implementation of a CLIL approach augments the presence of the foreign language in the curriculum without increasing students' time commitment" (Lasagabaster 2008), consequently saving time (Dalton-Puffer and Smit 2007), and time is precious in any educational context.

Another advantage for CLIL students is how this content-based instruction enhances motivation (Dalton-Puffer and Smit 2007; Coyle 2007; Coyle et al. 2010; Spratt 2012), self-esteem and confidence (Llinares and Dafouz 2010); partly because
"the higher proficiency level achieved (...) may have a positive effect on their desire to learn and develop their language competence" (Marsh 2000, as cited in Lasagabaster and Sierra 2009; Lasagabaster 2008).

Also, the development of CLIL programs is to a certain extent derived from cooperative learning (Ting 2011) for this method encourages the progress of higher order thinking skills (Brewster 2009, Llinares and Dafouz 2010) and makes available more opportunities to share different opinions by means of social interaction with peers (Pistorio 2010). Cooperation has also been essential in other educational contexts like post obligatory education in North America, in which the content subjects and the linguistic subjects "share the content base and complement each other in terms of mutually coordinated assignments" (Briton et al. 2003: 16, cited in Jaímez and Morillas 2011: 89)

For implicit learning to occur, "massive amounts of input are needed" (Lasagabaster 2008: 32). Studying different content subjects through a FL clearly provides more exposure to the language (Dalton-Puffer 2007, 2008), improving thus the linguistic competence of CLIL students (Agustín Llach 2009; Ojeda Alba 2009). However, this improvement is more obvious in receptive skills (listening and reading), vocabulary and morphology than in productive skills (speaking and writing) and syntax (Dalton-Puffer 2007, 2008; Lasagabaster 2008; Llinares and Dafouz 2010). In the case of vocabulary, repeated exposure to new lexicon provokes an increase in the knowledge of words. In Nation's (1990) view, "learners need to be involved in five to 16 repetitions in order to learn the new word" (in Ting 2011: 136), a frequency possible when studying subjects in a FL as a consequence of this greater exposure.

Also, it has been claimed that "learners studying in a CLIL context will show fewer instances of L1 transfer than other learners receiving traditional instruction in the foreign language" (Agustín Llach 2009: 114). This is based on the strong relationship between L1 (first language) and L2 (second language), as stated by Vygotsky (1934, 1986) and Cummins (1978) through the linguistic interdependence hypothesis, which asserts that "becoming functionally bilingual is influenced by the level of competency in the first language" (Vartuki 2010: 68). Thus, there exists a necessity for CLIL students to have a good mastery of the L1 before starting studying in the L2.

### 2.2. CLIL and EFL

When comparing CLIL and EFL, the positive effects of content-based teaching can be indicated.

Attributable to the implicit learning exclusively provided in FL naturalistic contexts (Lasagabaster 2008), CLIL learners show a better development of communicative competence than traditional EFL students (Dalton-Puffer and Nikula 2006). Apart from implicitness, "a distinguishing feature unique to L2 acquisition in immersion education -including CLIL- is language inhibition" (Bialystok 2005; Gasner and Maillar 2006; in Lorenzo 2007). This implies focusing on language using "for its instrumental use" and disregarding "the language as a code" (Lorenzo 2007: 33).

Based on a greater exposure to the FL and more meaningful and authentic tasks through CLIL rather than ELT (English Language Teaching), the content-based approach appeals to more positive attitudes towards the FL on behalf of CLIL learners (Lasagabaster and Sierra 2009; Lasagabaster 2008; Spratt 2012).

CLIL and ELT require different syllabuses, language use and teaching methodologies. In the same way, the learning contexts they entail are different. While CLIL classes are organized around the content to be learned, typically covering BICS and CALP, ELT focuses on grammar, vocabulary, skills and mainly BICS (Spratt 2012).

Finally, we can go as far as saying that "even if the traditional teaching of the foreign language is of very high quality, optimal goals cannot be achieved due to lack of time, as 'in foreign language settings input is, by definition, limited and it is usually distributed in very small doses'" (Muñoz 2008: 590, in Lasagabaster 2008). In this sense, CLIL is much more beneficial due to the greater amount of exposure hours to the language.

### 2.3. CLIL in Europe

The European Commission's White Paper on Education and Training (1995) suggested incorporating methods which promoted plurilingualism into national curricula. Many countries promptly started implementing bilingual programs (Casal and Moore 2009: 38) as "a European solution to a European need" (Marsh 2002: 5, in Lorenzo 2007: 27). Principles like mobility, economic cohesion, and maintenance of cultural diversity were necessary to implant and/or augment (Lorenzo 2007). Today, the range of CLIL programs under plurilingual European contexts is reasonably extensive: Germany, Italy, Ireland, Luxembourg, Switzerland, Austria, Finland, Spain or Wales (Marsh 2002, in Lasagabaster and Sierra 2009: 7); and their use of the FL "is mainly confined to the classroom" (Lasagabaster and Sierra 2010; Whittaker, Llinares and McCabe 2011).

Concerning Spain and Italy, CLIL instruction was seen as urgent from an early age owing to the facts that more than $50 \%$ of their inhabitants are monolingual, and that "the percentage of Spanish ( $17 \%$ ) and Italians ( $16 \%$ ) who can hold a conversation in two other languages is among the lowest among the European member states" (Lasagabaster 2008: 31).

Dalton-Puffer (2007, in Lasagabaster 2008) boosted the linguistic benefits of CLIL after looking at some research in German speaking countries, whose results showed a higher language competence by CLIL students compared to non-CLIL learners. Dalton-Puffer reached the conclusion that those CLIL learners who were generally good at FLs would also have a good performance in traditional EFL classes, and that it would be the average students who would benefit more from a CLIL program.

In another study, in Swedish secondary schools, Sylvén $(2004,2006)$ states that CLIL learners acquired a wider vocabulary due to a greater exposure to the FL (in Jiménez Catalán and Ruiz de Zarobe (2009).

### 2.4. CLIL in Spain

The spread of CLIL programs across Spain has been very fast; first, due to the Spaniards' growing awareness of the necessity to learn FLs (Ruiz de Zarobe and Lasagabaster 2010a), and, second, to incorporate the co-official languages (Catalan, Basque or Galician) in education (Cenoz 2009; Ruiz de Zarobe and Lasagabaster 2010a). In the case of foreign languages, it is English, the international language, the predominant FL in CLIL programs in Spain. According to Cenoz (2009), "using English as an additional language of instruction can provide the opportunity for more exposure to English in a context in which contact with English outside the classroom is very limited" (p. 145), as unfortunately happens in Spain.

Spain presents two different settings for the implantation of CLIL: bilingual and monolingual regions. Bilingual areas like Catalonia, the Basque Country or Galicia, through CLIL, aim "to maintain already existing bilingual communities". Specifically, the Basque Country has been implementing a Plurilingual Experience "to prove the educational importance and the efficiency of this program in a bilingual community with two already integrated languages, Spanish and Basque" (Ruiz de Zarobe and Lasagabaster 2010b: 30). On the other hand, monolingual regions like Madrid, Andalusia, La Rioja or Extremadura, intend to foster foreign languages, mainly English, apart from L1 (Road, Madrid and Sanz 2011: 107-8).

In Catalonia, some CLIL programs have been implanted in primary and secondary education, but there exists a lack of continuity from one level to the other. Nonetheless, the research carried out so far has proved the positive outcomes of CLIL. Namely, Catalan students have shown a good command of both Catalan and Spanish at the end of secondary education, which seems to be good evidence for CLIL in other languages (Ruiz de Zarobe and Lasagabaster 2010b: 30). In fact, Navés and Victori (2010) mention the better results in language proficiency by CLIL learners than EFL students. However, we must still be doubtful about this connection as the presence of FLs outside school is much more limited than the use of Catalan or Spanish. That is to say that the degree of bilingualism in other languages would be somehow more difficult to attain than in Spanish-Catalan.

The Basque Country offers a widespread implementation of CLIL programs. Lasagabaster (2008), in a study conducted in this region, observed how CLIL learners in grade 4 of secondary education outperformed non-CLIL students in the same or even higher grades in all the linguistic measures analyzed. Thus, CLIL did not only foster receptive skills as pointed out by Dalton-Puffer (2007), but also writing and pronunciation. Also, it was demonstrated that "students benefited from the CLIL approach irrespective of their sociocultural status", probably due to the meaningful language use created in CLIL classes (Lasagabaster 2008: 40).

In another bilingual setting, Galicia, a study (San Isidro 2010) in 10 secondary schools, both in urban and rural areas, proved the educational benefits of CLIL as regards English language proficiency. Contrary to the traditional view that girls are better at languages, no gender differences were found in this CLIL context. However, CLIL urban learners outperformed their rural counterparts in oral skills, probably due to technologically less well provided schools in rural areas.

The Spanish monolingual setting where CLIL implantation has been more flourishing in the last two decades is Andalusia. Here, CLIL instruction is present in a great number of primary and secondary education schools, in which one group of learners per level (known as the bilingual section) is taught $30 \%$ to $50 \%$ of the curricula of two or more content subjects in a FL, primarily English. At a later stage, this CLIL exposure is increased through the learning of an L3 (Jaímez and López Morillas 2011: 79). Hence, the Andalusian context shows good results for the multilingualism Europe is seeking. Some research conducted in this region by Lorenzo, Casal and Moore (2009) showed that CLIL students performed better in English than monolingual peers. However, CLIL late starters obtained similar scores to their early start counterparts, which makes us speculate about the necessity of an early start in CLIL or not. In any case, according to some teachers, bilingual co-ordinations and language assistants involved in this Andalusian CLIL setting, the influence of CLIL goes beyond the L2 itself (Roa, Madrid and Sanz 2011) as it improves the learners' cognitive development.

Below, I will refer to the community of Madrid, which has also implemented CLIL programs in the last two decades.

Hence, CLIL instruction is present in state, semi-private and private schools all over Spain, which takes us to the constructive belief that this type of learning is not discriminatory. The only selective factor evident in some regions such as Madrid is the requirement for a minimum mark to enroll in the CLIL program, which in Lasagabaster and Ruiz de Zarobe's (2010) view should be avoided. The best way to implement CLIL programs is doing it equally across the country, not independently.

### 2.5. CLIL in Madrid

In the region of Madrid, two bilingual programs have been working simultaneously in the last decade: the MEC/British Council project, an agreement signed between the British Council and the Spanish Ministry of Education in 1996, and the CAM (Autonomous Community of Madrid) Bilingual Project, which started in 2004 in primary schools (Llinares and Dafouz 2010) and within which this study is involved.

The MEC-British Council project consisted of an integrated English and Spanish curriculum. The students would have five hours of English language per week and study different content subjects in English, too. The teachers could be either Spanish speakers or natives. At the end of $4^{\text {th }}$ grade of Secondary Education, these CLIL learners would optionally take IGCSE exams (an international version of the General Certificate of Secondary Education in the UK) in different content subjects. Participating students obtained good results in English, Biology, History and Geography (Roa,Madrid and Sanz 2011). Through this program, it has been shown that students showed good listening skills, use of higher-order thinking skills, motivation, personal confidence and cultural awareness (Llinares and Dafouz 2010). Currently, this program only applies to Bachillerato (post obligatory education) as the CAM Bilingual Project is replacing it.

The Community of Madrid has introduced CLIL, particularly through English, as an unquestionably ambitious program. In fact, CLIL is different in Madrid due to "its large dimension" and "its fast implementation" (Llinares and Dafouz 2010: 110). The number of state schools incorporating CLIL programs has been consistently increasing in the last decade (Whittaker, Llinares and McCabe 2011). In the academic year 201314 , there will be 316 state primary education schools, 90 state secondary education schools, 141 semi-private schools and a number of private schools (Consejería de

Educación de Madrid). At the end of this school year, the first CAM Bilingual Project students will graduate and get their secondary education certificate, which might bring about a range of studies to analyze the benefits of CLIL after so much funding in its implementation.

Apart from its fast incorporation, CLIL in Madrid has been put into practice differently and in a more demanding way from other Spanish regions. Some of the requirements established by the regional government are the exclusion of teaching Math, and obviously Spanish, in a FL, the prerequisite for learners to attain a minimum mark according to the European Framework of Languages to enter the program and the condition for teachers to have a C1 level to teach in CLIL programs. Lasagabaster and Ruiz de Zarobe (2010) support this last requirement at least for teachers in secondary and tertiary education. However, in other regions in Spain, Math is taught in English, there is no minimum entrance mark requirement and teachers are simply required to have a B2 level.

The CLIL program in state secondary education schools in Madrid encompasses one or more CLIL Bilingual Section groups in each level. The rest of the students are distributed in semi-CLIL or non-CLIL Bilingual Program classes. The CLIL learners in the Bilingual Section are all taught Social Studies and Science in English and optionally other different content subjects. Additionally, they are given five hours per week of Advanced English (English language, literature and culture). In the Bilingual Programs, learners are offered five hours of traditional EFL, but semi-CLIL students are also taught some optional content subjects (Art, Technology, PE) in English depending on the school. We can then conclude that all learners in state bilingual schools gain a greater exposure to a FL as against those attending non-bilingual high schools in Madrid. It is in this environment that this study was designed.

The effects of CLIL in Madrid are examined in a study conducted by Llinares and Whittaker (2010) in different state secondary schools to examine if CLIL learners' difficulties with history genres were due to a poor English competency or if they also appeared in tasks developed in their mother tongue. The results suggest that the history genres are not negatively affected by CLIL tuition, supporting thus the idea that
content-based education enhances the learning of a content subject instead of having a harmful effect on it (Spratt 2012).

## 3. The study

### 3.1. Purpose and Research Questions

In this study I analyze students' written production since there is a gap in research regarding studies on specific skills like writing (Dalton-Puffer 2005; Nikula 2007). Therefore, I intend to compare the English written compositions of wholly CLIL (BS - Bilingual Section), partially CLIL (BP - Bilingual Program) and non-CLIL students (NB - Non-Bilingual) in $3^{\text {rd }}$ year of Secondary Education in the city of Madrid. Likewise, I plan to look at the BS group's writing ability in an EFL essay and a CLIL essay.

Using Wolfe-Quintero et al.'s (1998) meta-analysis of studies in L2 writing, this research aims to analyze measures of writing development, not writing proficiency, owing to the fact that "language development refers to characteristics of a learner's output that reveal some point or stage along a developmental continuum" (WolfQuintero, et al. 1998: 2). Besides, the analysis of IT (interlanguage) development through learners' compositions lets us decide "on how to describe the characteristics of the learner's interlanguage and how to measure linguistic change over time" (Torrás, Navés, Celaya and Pérez-Vidal 2006: 157).

In order to examine the English writing development of the three groups, I will look at the different categories used by Martín Úriz et al. (2005) to analyze Spanish Bachillerato students' FL compositions, which are based on Wolfe-Quintero et al.'s (1998) four major writing measures (fluency, lexical complexity, syntactic complexity, and accuracy).

Taking into consideration previous research which affirms that CLIL learners perform better when writing about a general topic in English than older EFL students on most of the measures utilized by Wolfe-Quintero et al. (1998) (Llinares, Whittaker and McCabe 2011), this study aims at answering the following research questions:

1. Will there be significant differences between the CLIL (BS and BP) and nonCLIL students (NB) across the different writing measures?
2. Will there be significant differences between the BS and the BP groups across the different categories?
3. Will there be significant differences between the BP and NB cohorts across the different categories?
4. Will there be significant differences in writing between the EFL essay and the CLIL essay by BS students?

### 3.2. Participants

The subjects involved in this project are ten Bilingual Section students, ten Bilingual Program students and ten Non Bilingual students. The first two groups were studying at a bilingual state secondary education school during the school year 2012/13, while the third group was in $3^{\text {rd }}$ year of ESO at a non-bilingual state secondary education school. These two schools are located in similar working-class neighborhoods in Madrid, where families are low-middle class. We must say, though, that, on average, the parents of the BS students are financially better and have a higher academic level (based on the answers from the personal interviews below).

The percentage of immigrants in these two schools is high, and come mainly from Romania, Morocco and South America. In fact, some of the students analyzed here come from other countries or have a foreign background. In the BS group there is a student whose mother is from Morocco and whose father is German. In the BP group there are three immigrant students, while in the NB group there are two immigrants. It must be pointed out, though, that all these students have lived in Spain from an early age and are linguistically and culturally integrated in the community.

Regarding the English learning background, the ten BS students started learning English at the age of three and were enrolled in the Comunidad de Madrid bilingual program at the age of six. They have all been studying in the same bilingual Primary and Secondary schools, and have even shared the same classroom and teachers, being thus the most homogeneous group analyzed in this study. In Primary Education they
received between eight and nine hours of English per week (distributed in English Language, Social Studies/Science and either Music, Art or PE). In Secondary Education, they have been exposed to five hours of Advanced English weekly (the researcher being their teacher in $3^{\text {rd }}$ year), plus three or four hours depending on the year of Social Studies and Science. Also, they have been doing Art, Technology, PE, Citizenship and Tutorial Time in English in these three years. This makes a total of approximately 3780 hours of English exposure.

In the BP group, half of the students started learning English at the age of three and half at the age of six. They all followed an ordinary EFL Non-Bilingual Primary Education curriculum, with two or three hours of English per week depending on the year. At the age of eleven they entered a Secondary Education bilingual school and started doing other subjects in English. In the case of these ten students, they all did PE in English in $1^{\text {st }}$ year of ESO, Citizenship in $2^{\text {nd }}$ year, and Technology and PE in $3^{\text {rd }}$ year. Hence, BP students have been exposed to about 1064 hours of English.

Finally, the NB group started learning English at the age of three, except for one late starter. These learners also followed an ordinary EFL Primary Education curriculum, but unlike the BP group, they were enrolled in a non-bilingual high school, having three hours of English per week and the rest of the subjects in Spanish. Consequently, the number of exposure hours in this group is approximately 672.

The table below summarizes the main features of the three groups analyzed in this study.

| COHORT | AGE | N | GENDER |  | Hours of <br> Exposure | Cloze Test <br> Average Grade |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BS | $15-16$ | 10 | 5 Male | 5 Female | 3780 | 8.2 |
| BP | $15-16$ | 10 | 4 Male | 6 Female | 1064 | 5.7 |
| NB | $15-16$ | 10 | 2 Male | 8 Female | 672 | 4.3 |

### 3.3. Data collection

In the first place, after being given parents' consent, four $3^{\text {rd }}$ year of ESO classes were chosen: a 24 -student Bilingual Section class, a 16 -student Bilingual Program class and a 18 -student Bilingual Program class at the bilingual school, and a 25 -student class
at the non-bilingual school. The reason for choosing two Bilingual Program classes was the necessity to analyze sufficient semi-CLIL students. From these two Bilingual Program classes, only some of the students would grouped together this school year for Technology and PE CLIL lessons owing to their good English level.

Two types of methods were carried out to pick the most appropriate students for this study out of those four classes. First, I followed a qualitative analysis through studying all the learners' written personal interviews. These interviews, designed by myself, were administered by the students' English teachers (the researcher being in charge of the BS group). The final aim of this qualitative examination was to control the CLIL and age variables. The English starting age could not be entirely controlled as some students started learning English at the age of three while others did it at the age of six. In any case, this difference has been assumed not to be significant as "an earlier start in a foreign language context does not mean reaching a higher level of ultimate attainment or faster and more effective acquisition in the different subskills which form an integral part of the skill of writing" (Torras, Navés, Celaya and Pérez-Vidal 2006: 177). In point of fact, when looking at learners' written production, the BAF (Barcelona Age Factor) project has proved that it is the age of 12 that represents a change in the development of "grammatical and lexical complexity, either triggering the development of subordination or accelerating the rate of development of coordination and the increase of language variety" (Torras, Navés, Celaya and Pérez-Vidal 2006: 177).

Equally, the nationality variable was hard to control as there happened to be a fairly high percentage of immigrant pupils in the Bilingual Program and Non-Bilingual classes. Nevertheless, the total number of immigrants in the groups analyzed is reasonably low (6 out of 30). Nor could private tuition be absolutely controlled (4 learners out of 30 have at some point had some after school English classes, none in the BS group).

It was indispensable to identify those learners who had been previously exposed to CLIL lessons. Therefore, thanks to these interviews, I could obtain a totally CLIL group (BS), a semi-CLIL group (BP) and a non-CLIL group (NB).

Once three similar groups were identified, it was necessary to pick the final ten students in each group for the analysis of written production. In order to do this, a 20item cloze test was administered. The results of these tests were analyzed quantitatively. The students with the best and the worst marks in each group were discarded with the aim of picking ten students from each group with grades in the middle.

At the same time, all the students were given by their English teachers 15 minutes off a class period to write down a GE (General English) essay on the prompt "Introduce Yourself", used in the BAF Project (Muñoz 2006; Miralpeix 2006; Torras, Navés, Celaya and Pérez-Vidal 2006). This topic was thought to be easy enough for the three groups of students to write about.

In addition, on a different day and during the English class period, the BS group was given 15 minutes to write on a Geography topic previously dealt with in the Geography class and revised through a whole-class oral discussion a few days before realizing the writing task in the language class, following the design of the UAM-CLIL written corpus (Llinares and Whittaker 2010). This oral work was thought to be highly beneficial for the pupils "to create a stable knowledge base on which to draw during the writing of the text, releasing attention for other parts of the complex and demanding task of formulating text in a foreign language" (Manchón et al. 2009, in Whittaker et al. 2011: 358-9). The academic task consisted of a descriptive report, "common when students are shown some data and asked to compare different aspects" (Llinares, Morton and Whittaker 2012: 131), in which the students were asked to compare four population pyramids of two different countries, the USA and Afghanistan. The reason for this assignment choice was the cognitive and metacognitive knowledge a comparison/contrast essay habitually inspires (Sitko 1998, in Loranc-Paszylk 2010; Dutro and Moran 2003). Along with this, "comparing and contrasting develops critical thinking skills thanks to the necessity of selecting relevant information" (Bransford, Sherwood and Vye i Rieser 1986, cited in Lorack-Paszylk 2010: 48). This way, we are verifying the importance of using a genre-based approach to analyze subject matter written production (Morton 2010).

### 3.4. Method

The analysis process involved the essays of the 30 students chosen, which makes a total of 40 writing papers analyzed. All of them were analyzed from different perspectives in order to obtain reliable information about a variety of features in writing development. The BAF project has demonstrated that "a single developmental index" is not constructive due to an unparallel development of the elements of writing (Torras, Navés, Celaya and Pérez-Vidal 2006: 158). That is why this study focuses on the following measures proposed by Martín Úriz et al. (2005): general production fluency, complexity, lexical variety, grammatical correction and use of connectors or transition words (Martín Úriz, et al. 2005).

General production was analyzed by counting the total number of words (W), sentences (S), T-units (T), defined by Hunt (1965, 1977), in Martín Úriz, et al. (2005: 81), as non-coordinated main clauses together with their subordinate clauses, finite clauses (F) and non-finite clauses (NF).

In order to measure fluency, or the facility with which a writer, in this case, uses language (Dutro and Moran 2003), I observed the length of the texts (Wolf-Quintero, et al. 1998). In this study this measure has been analyzed by counting the number of words per sentence (W/S) and the number of words per T-unit (W/T).

As regards complexity, the ratio of finite and non-finite clauses per T-unit was calculated attending to Martín Úriz et al.’s (2005) assumption that this measure might be sensitive to the syntactic development of the students' writing.

As in Martín Úriz et al. (2005), this study has focused on lexical variation instead of lexical density following Wolfe-Quintero et al.'s (1998) hypothesis that "measures of lexical variation and sophistication, but not lexical density, appear to be related to second language development" (Wolfe-Quintero et al. 1998: 104). Hence, only the number of different content words was taken into consideration. This was applied to the first 50 words in each essay "con el fin de evitar el posible sesgo debido a la repetición, que se suele encontrar en textos con mayor número de palabras" (Biber 1988, Wolfe-Quintero et al. 1998, as cited in Úriz et al. 2005). When comparing the BS,

BP and NB cohorts, an additional analysis of the type/token ratio (total number of different content words per total number of words written) was calculated to test the initial results due to the difference in number of words across the three groups.

Grammatical correction refers to accuracy or language precision (Dutro and Moran 2003), and was examined by calculating two ratios; the number of grammatical and lexical errors per T -unit $(\mathrm{E} / \mathrm{T})$, and, the number of errors per total number of finite clauses (E/F).

Finally, the proportion of connectors per T-unit was calculated. Here, I counted the coordinating conjunctions and, or and but, plus other connecting words indicating addition (also, too), enumeration (first, then), consequence (because) and conclusion (finally).

After the results were quantitatively collated, several ANOVA tests were applied in order to check if there existed statistically significant differences ( $\mathrm{p}<0.05$ ) among the three groups across the different measures analyzed. When the difference between the groups across some measure was significant, three T-tests were employed between groups 1 and 2, 2 and 3 and 1 and 3 in order to show where the difference lay.

In order to examine BS students’ non-CLIL and CLIL essays, several T-tests were administered with the aim of indentifying potential statistically significant differences across the different measures analyzed.

## 4. Results and discussion

### 4.1. Analysis of Bilingual Section, Bilingual Program and Non Bilingual learners' written production

### 4.1.1. General Production

Table 1 and figure 1 present the general production (number of words, number of sentences, number of T -units, number of finite clauses and number of non-finite clauses) of the three groups analyzed (BS, BP and NB).

| GENERAL PRODUCTION |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GROUP | $\mathbf{W}$ |  |  |  |  |  |
|  | Mean and <br> s. d. | S <br> Mean and <br> s. d. | T <br> Mean and <br> s. d. | F <br> Mean and <br> s. d. | NF <br> Mean and <br> s. d. |  |
|  | 147.4 | 12.2 | 15.8 | 18.8 | 5.6 |  |
|  | 33.08 | 2.25 | 2.86 | 4.26 | 2.41 |  |
| BP | 122.5 | 11.7 | 14.7 | 16.8 | 5.3 |  |
|  | 31.42 | 3.83 | 3.83 | 4.54 | 1.89 |  |
| NB | 86.90 | 12.90 | 13.90 | 14.00 | 5.30 |  |
|  | 14.95 | 4.01 | 3.78 | 3.74 | 3.20 |  |

Table 1. General written production of the BS, BP and NB groups


Figure 1. General written production of the BS, BP and NB groups

The Bilingual Section learners outperformed the Bilingual Program and Non Bilingual students in the number of Words, T-units, Finite and Non Finite. In the same way, the BP group performed better than the NB cohort in W, T and F. However, the NB group outperformed the BS and BP cohorts in Sentences, which means that their sentences were shorter -since they produced fewer words-, suggesting less complexity. This is also supported by the fact that they produced very few Finite clauses; the difference between T-units and Finite clauses is hardly appreciated. The examples below, taken from the BS and BP cohorts' written production, give the reader an idea of the students' writing of Finite clauses and the type of subordination used:

1. I like listening to music, going out with my friends, doing sports, which I do twice a week.

BP
2. I use it always when I have time.
3. I practice judo since I'm six and I brown belt

In the case of NF clauses, the three cohorts did similarly. This is evident in the type of non-finite clauses all of them produced, mainly by means of -ing forms and toand bare infinitives as direct objects indicating likes and preferences:

BS
4. In my free time I like going out with my friends, watching TV and playing with my sister.

BP
5. I like travelling far, know about different places, etc

NB
6. I like watching TV, chatting, listening to music, etc.

The Bilingual Section learners also showed a better mastery of grammar by using the correct complementation of verbs (a), -ing forms after prepositions (b) or past participles (c):
7. My teacher at this moment is telling me to finish. (a)
8. I would like to study (b) psicology or something related (c) for helping people with their problems, and solve them. (b)
9. I go to a bilingual school called G.M. (post modifier of the Noun Phrase)

Nevertheless, after applying ANOVA tests, we can observe that there are not any statistically significant differences in any of the measures except for total number of tokens or words $(\mathrm{p}=0)$. The T-tests applied afterwards showed that the greatest significance lies between the Bilingual Section group and the Non Bilingual group ( $\mathrm{p}=0.0001$ ). However, it was also demonstrated that the difference between the

Bilingual Program and the Non Bilingual groups is still significant ( $\mathrm{p}=0.0046$ ). Figure 2 clearly represents a progressive decrease in number of words across the three groups of


Figure 2. Frequency of words written by BS, BP and NB cohorts
students. These results evidently support a study in Catalonia of CLIL and non-CLIL learners' written production across different levels, which shows that CLIL learners write more words, even more than older non-CLIL students (Navés and Victory 2010; Navés 2011).

Hence, we can conclude that when it comes to general production, the three groups mainly differ in the number of tokens written. This could demonstrate the easier facility of CLIL students to write longer texts based on their frequent writing on CLIL topics. However, the lack of statistical differences in the rest of the general production measures shows that bilingual education does not increase the number and complexity of the sentences produced to a great extent. This finding contradicts Arcos Sorando's (2012) study of CLIL and non-CLIL $4^{\text {th }}$ year of ESO students' written production, in which she shows that "the most syntactically complex compositions were the ones written by the CLIL learners" due to their higher average of clauses, T-units and complex T-units (p. 5).

### 4.1.2. Fluency

Table 2 indicates how much fluency (words per sentence and words per T-unit) the three groups showed in their essays. The Bilingual Section learners outperformed
the Bilingual Program and Non Bilingual students in both fluency categories as the example (10) below shows.

| FLUENCY |  |  |
| :---: | :---: | :---: |
| GROUP | W/S | W/T |
|  | Mean and | Mean and |
| s. d. | s. d. |  |
| BS | 12.16 | 9.33 |
|  | 2.24 | 1.20 |
| BP | 11.30 | 8.59 |
|  | 4.43 | 2.23 |
| NB | 7.16 | 6.47 |
|  | 1.81 | 1.14 |

Table 2. Fluency level produced by BS, BP and NB learners

BS
10. I'm sympathetic, happy / and I don't get angry too much / but when I get angry I think I'm dangerous. (1 Sentence, 3 T-units)

Similarly, the BP group produced more Words/Sentence and Words/T-units than the NB cohort:

BP
11. Her name is Fiorella / and she studies in the same high school that me. (1 Sentence, 2 T-units)

NB
12. I have black eyes /and have big (mouse). (1 Sentence, 2 T-units)

However, the difference in the mean of W/T across the three groups is less evident than the mean for W/S. In fact, the BS students nearly double the number of W/S produced by the NB learners (Bilingual Section-12.16 vs. Non Bilingual-7.16) probably due to their lower number of sentences (Bilingual Section-12.2 vs. Non Bilingual-12.9 in table 1).

The difference among the groups after applying an ANOVA test was significant in both ratios ( $\mathrm{p}=0.002$ and $\mathrm{p}=0.001$ respectively). Figure 3 shows a bigger difference in words per sentence than in words per T-unit between both the BS and BP groups and the NB group.


Figure 3. Fluency level by BS, BP and NB groups

Nevertheless, after applying the corresponding T-tests, the difference in both W/S and W/T between the BS group and the NB group is considered to be equally significant ( $\mathrm{p}=0.0001$ ). In addition, the difference between the BP group and the NB group is to some extent significant (Words/Sentence: $\mathrm{p}=0.0135$, Words/T-units: $\mathrm{p}=0.0154$ ). In the light of figure 3, no statistical significance was found between the BS group and the BP group in either category. If we take into account the general production results of the three groups, we see the logic of the fluency measure. Namely, the considerable difference in W/S and W/T between the BS group and the NB group is anchored in the higher number of words written by the former and the similar number of sentences produced by both. Finally, figure 4 is evidence for the similar number of W/S and W/T produced by the NB group owing to the analogous number of sentences and Tunits they wrote (table 1).


Figure 4. Frequency of words/sentence and words/T-unit

Nonetheless, the BS and the BP groups show a similar difference in both W/S and W/T, proving their greater use of T-units (table 1).

### 4.1.3. Complexity

Table 3 presents the results for complexity as measured in texts of Bilingual Section, Bilingual Program and Non Bilingual cohorts. The table shows the mean of finite and non-finite clauses per T-unit in the three groups.

| COMPLEXITY |  |  |
| :---: | :---: | :---: |
| GROUP | Mean | s. d. |
| BS | 1.54 | 0.22 |
| BP | 1.52 | 0.34 |
| NB | 1.41 | 0.27 |

n.s. $(p=0.545)$

Table 3. Complexity level of BS, BP and NB learners

The following examples show how many Finite and Non-Finite clauses are included in two T-units in each group:

## BS

13. My family is the most important thing for me is the people who is going to stay with me in the future, / and my friends that make me laugh. (2 T-units, 2 Finite, 1 Non Finite)

BP
14. I like to go to America, / but I don't think that I'm going to go soon. (2 T-units, 3 Finite, 1 Non Finite)

NB
15. I like playing basketball, / but I don't like playing football. (2 T-units, 2 Finite, $\underline{2}$ Non Finite)

Here, the difference in the number of finite and non finite clauses per T-unit is statistically non-significant ( $\mathrm{p}=0.545$ ). It must be pointed out, though, that despite of the fact that the dissimilarity is not considerable, the mean of finite and non finite clauses per T-unit is minimally higher in the BS and BP groups than in the NB group (figure 5).


Figure 5. Complexity level of BS, BP and NB groups

### 4.1.4. Lexical variety

This variable has definitely been the most laborious to measure. Table 4 shows the average number of different types or content words written by the three groups in the first 50 -word range of their compositions.

| LEXICAL VARIETY I |  |  |
| :---: | :---: | :---: |
| GROUP | Mean | s. d. |
| BS | 23.5 | 2.72 |
| BP | 22.5 | 0.85 |
| NB | 25.10 | 2.18 |

$\mathrm{p}=0.03$
Table 4. Lexical variety in the first 50 different content words of BS, BP and NB compositions

Although the mean difference is not very high, in figure 6 it is evident that nonCLIL learners outperformed their CLIL counterparts, specially the BP group. This is


Figure 6. Lexical variety in the first 50 different content words of BS, BP and NB compositions
established by the ANOVA test ( $\mathrm{p}=0.03$ ) and the consequent T -tests. There is no statistical significance between the Bilingual Section and the Bilingual Program groups ( $\mathrm{p}=0.2817$ ), and between the Bilingual Section and the Non Bilingual classes ( $\mathrm{p}=0.1638$ ). Nevertheless, the difference in number of types is statistically significant between the Bilingual Program and the Non Bilingual cohorts (0.0025).

These results are supported by former research on CLIL and non-CLIL learners' productive vocabulary. Several studies have shown that the differences in lexical variety are not as clear as in syntactic complexity (Navés 2011) despite the positive effect cognitive maturity has on vocabulary acquisition (Muñoz 2006). CLIL students seem to produce more tokens (as discussed above) but fewer types of different content words than non-CLIL students (Navés 2011; Fernández Fontecha 2010). This may be due to the fact that the longer the composition, the more repetition produced, thus a greater development of the topic (Martín Úriz et al. 2005). Another reason for this might be that, despite their lower exposure to the FL, non-CLIL learners tend to show higher lexical richness when dealing with certain topics (Ojeda Alba 2009). Thus, we can say that the "Introduce Yourself" prompt was not demanding enough for CLIL learners. Based on this, the examples below show the similar lexicon used by the three cohorts and the lexical variation produced:
16. My name is M. I'm 14 years old. I was born in Madrid on $28^{\text {th }}$ of May, 1998. I have two sisters and one brother. 15 types/ 25 tokens
BP
17. My name is L., I'm 15 years old. I live in Madrid. I have 2 brothers: 1 older sister and 1 younger brother. 14 types/23tokens

NB
18. My name is H. M. I'm fifteen years old. I'm live in España (Madrid). I like chocolate cake. My favorite food is Pasta and Pizza. 16 types/25 tokens

The findings might be, indeed, the outcome of the fact that vocabulary is one of the linguistic features that students learn "more efficiently in the first stages of learning a language" (Miralpeix 2006: 90). Also, they may be ascribed to "the type of test utilized with a limited amount of time in a formal context, not in a communicative environment, where CLIL learners feel comfortable" (Fernández Fontecha 2010: 87, based on Jiménez Ojeda and Ojeda Alba's analysIs of CLIL in La Rioja).

Considering the study by Jiménez Catalán, Ruiz de Zarobe and Cenoz (2006) of primary CLIL and non-CLIL students' productive vocabulary in compositions, whose results showed that the type/token ratio was higher in the CLIL group (in Ruiz de Zarobe 2011), and the belief that CLIL students' productive lexis is generally larger and more academic due to content and language integrated learning (Dalton-Puffer 2011), an additional analysis of lexical variation was carried out to check the initial results. This time, I considered the total different content words produced per total number of words. As shown in table 5 and figure 7, the non-CLIL group once again outperformed their CLIL cohorts. However, and surprisingly enough, the BP group showed a slightly richer lexical variation than the BS cohort.

| LEXICAL VARIETY II |  |  |
| :---: | :---: | :---: |
| GROUP | Mean | s. d. |
| BS | 0.39 | 0.06 |
| BP | 0.41 | 0.04 |
| NB | 0.48 | 0.07 |
| $\mathrm{p}=0.005$ |  |  |

Table 5. Lexical variety of type/token ratio of BS, BP and NB learners


Figure 7. Lexical variety of type/token ratio of BS, BP and NB learners

The ANOVA test applied determined that the difference between the groups is significant ( $\mathrm{p}=0.005$ ). The T-tests showed that this difference is considerable between both the BS and BP cohorts and the NB group $(\mathrm{p}=0.0064$ and $\mathrm{p}=0.0133$ correspondingly). Consequently, these findings contradict Jiménez Catalán, Ruiz de Zarobe and Cenoz's (2006) study.

### 4.1.5. Grammatical Correction

Table 6 gives results for errors per T-unit (E/T) and errors per finite clause (E/F) in the three groups analyzed.

| GRAMMATICAL CORRECTION |  |  |
| :---: | :---: | :---: |
| GROUP | E/T | E/F |
|  | Mean and | Mean and |
| s. d. | s. d. |  |
| BS | 0.37 | 0.30 |
|  | 0.27 | 0.20 |
| BP | 0.56 | 0.50 |
|  | 0.30 | 0.27 |
| NB | 0.55 | 0.55 |
|  | 0.35 | 0.35 |

Table 6. Levels of grammatical correction attained by BS, BP and NB learners

The percentage of $\mathrm{E} / \mathrm{T}$ and $\mathrm{E} / \mathrm{F}$ is slightly lower in the BS cohort than in the other two groups, supporting Arcos Sorando's (2012) conclusion that CLIL students make fewer mistakes in writing than their EFL counterparts, especially in grammar.

The mistakes accounted in this study are grammatical and lexical and seem to be due to L1 transfer:

BS
19. I don't say nothing. (Grammar transfer: double negation)
20. I'm a funny and happy boy, very social and intelligent. (Vocabulary transfer)
21. My mother who's name is Maria Consuelo ... (Error based on the homophones Who's and Whose)
22. In this redaction, ... (Vocabulary transfer)
23. I have very poor califications. (Vocabulary transfer)

BP
24. I have a red, long hair. (Grammar transfer)
25. I always want to have the reason. (Grammar and vocabulary transfer)
26. I like travel. (Grammar transfer)

NB
27. I like the extreme sport. (Grammar transfer)
28. I like write. (Grammar transfer)
29. I like the childrens. (Grammar transfer)
30. They are happy, sympatique. (Vocabulary transfer)
31. He has got a brown eyes. (Grammar transfer)

The BP and NB cohorts show similar E/T and E/F ratios, which means little difference between the two when it comes to error making. Moreover, the similarity between $\mathrm{E} / \mathrm{T}$ and $\mathrm{E} / \mathrm{F}$ in each group is clear due to the similar amount of T -units and Finite clauses produced, especially by the NB cohort, whose results are identical for both $\mathrm{E} / \mathrm{T}$ and $\mathrm{E} / \mathrm{F}$. Despite the disparity shown in figure 8, after applying an ANOVA test, no statistical differences were encountered ( $\mathrm{E} / \mathrm{T}: \mathrm{p}=0.316$; $\mathrm{E} / \mathrm{F}: ~ 0.127$ ).


Figure 8. Number and error types produced by BS, BP and NB learners

Based on these findings, we assume that the more exposure to CLIL classes, the more free-error sentences produced by English learners.

### 4.1.6. Connectors

Table 7 and figure 9 show the results for the average number of connectors per T-unit.

| CONNECTORS |  |  |
| :---: | :---: | :---: |
| GROUP | Mean | s. d. |
| BS | 0.53 | 0.22 |
| BP | 0.59 | 0.18 |
| NB | 0.43 | 0.21 |

n.s. $(p=0.227)$

Table 7. Use of connectors by BS, BP and NB learners


Figure 9. Number of connectors used by BS, BP and NB learners

Bilingual Program learners produced more transitions than Bilingual Section and Non Bilingual students. Overall, CLIL learners performed better regarding connectors than their non-CLIL counterparts. Nonetheless, it can be appreciated that the differences are not significant across the three cohorts (proved by an ANOVA test, $\mathrm{p}=0.227$ ).

As regards the type of connectors, the conjunction and is the most frequently utilized by the three cohorts, followed by but and or:

BP
32. I like football, basket and dancing.
33. I would like to live in Canada, Dublin or London with my boyfriend and lost of pets. BP
34. their name are Pichi and Cola both are black and white.
35. In the school I go well, but I don't like studying.

NB
36. I look like slim and tall.
37. I love gymnastics and dance, but I hate playing football.

These coordinating conjunctions are typically found in spoken language, which means they are not an indicator of written development. Even though the CLIL learners produced more linking words, content-based instruction, and thus a greater exposure to English, does not seem to affect the use of cohesion to a great extent (Dalton-Puffer 2011).

In addition, the overuse of and is evidence for conversational language (Barrio 2004, cited in Llinares and Whittaker 2010), thus BICS is more present here than CALP or cognitively more demanding language (Várkuti 2010).

Apart from and, another additive word, also, is particularly used by BS group: BS
38. I also play the piano.

However, instances of the result connector so and the exemplifying transition such as are scarce and only found in texts by BS learners:

BP
39. So, bye people.
40. I have many hobbies, such as friends, videogames, playing airsoft with my friends and Music.

The trend of these CLIL students to write in content subjects like History or Science may be the reason for this. Hence, these linking words are the only instances of CALP encountered in this measure.

### 4.2. Analysis of Bilingual Section learners' non-CLIL and CLIL written essays

### 4.2.1. General Production

Table 8 displays the means for the general production measures in the non-CLIL and the CLIL essays.

| GENERAL PRODUCTION |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ESSAY TYPE | W <br> Mean and <br> s.d. | S Mean and s.d. | $\mathbf{T}$ <br> Mean and s.d. | F Mean and s. d. | NF Mean and s. d. |
| NON-CLIL | $\begin{aligned} & 147.4 \\ & 33.08 \end{aligned}$ | $\begin{aligned} & 12.2 \\ & 2.25 \end{aligned}$ | $\begin{aligned} & 15.8 \\ & 2.86 \end{aligned}$ | $\begin{aligned} & 18.8 \\ & 4.26 \end{aligned}$ | $\begin{gathered} 5.6 \\ 2.41 \end{gathered}$ |
| CLIL(Geography) | $\begin{aligned} & 127.8 \\ & 39.45 \end{aligned}$ | $\begin{gathered} \hline 7.2 \\ 2.49 \end{gathered}$ | $\begin{gathered} \hline 9.5 \\ 2.85 \end{gathered}$ | $\begin{aligned} & 12.2 \\ & 4.29 \end{aligned}$ | $\begin{gathered} \hline 0.4 \\ 0.70 \end{gathered}$ |
|  | n.s. | $\mathrm{p}=0.0002$ | $\mathrm{P}=0.0001$ | $\mathrm{p}=0.0029$ | $\mathrm{p}=0.0001$ |

Table 8. Levels of general production in non-CLIL and CLIL compositions

It is conspicuous that CLIL learners wrote more sentences, T-units, finite clauses and non-finite clauses in English on a general topic than on a content-based prompt which demanded a similar amount of text. These data resulted in statistical differences through a T-test. In the case of tokens, even though more words were produced in the
non-CLIL paper, no statistical difference was found. As shown in figure 10, BS students performed better in the EFL essay on all the measures.


Figure 10. Levels of general production in non-CLIL and CLIL compositions

In the case of Sentences, the learners produced fewer in the CLIL essay, resulting in more coordination and subordination:
41. We can see that the USA has a higher life expectancy because is a developed country and have developed new medicines.
42. I also think $\phi$ there are more females than males in 2010.
43. The pyramid of USA in 1980 shows that more or less, are the same amount of men and women.
44. We have to compare them we should say that there's a big difference between population.

Instances of NF clauses are limited in the CLIL compositions (e.g. to compare in 44 above); fewer -ing forms were used as there was no necessity to refer to likes as happened in the EFL essay.

These findings might be assigned to the fact that CLIL learners tend to show a better mastery of BICS than CALP, i.e., they find it easier to write down on a general topic related to everyday communication. In fact, we would probably get similar results if we looked at these learners' essays in their L1 (Llinares and Whittaker 2010).

### 4.2.2. Fluency

Owing to the fewer sentences and T-units produced in the CLIL writing papers, the token/sentence and token/T-unit ratios are higher in the same essays:
45. Here we can see a population pyramid of the US and Afghanistan of the 1980s and 2010s. (17 Words, 1 Sentence, 1 T-unit)

On the other hand, the data show lower rates in the non-CLIL written production (table 9 and figure 11), as exemplified in the following sentence produced by the same learner who wrote 45 :
46. In this redaction I'm going to introduce about my self. (10 Words, 1 Sentence, 1 Tunit)

| FLUENCY |  |  |
| :--- | :---: | :---: |
| ESSAY TYPE | W/S | W/T |
|  | Mean and | Mean and |
|  | s. d. | s. d. |
| NON-CLIL | 12.16 | 9.33 |
|  | 2.24 | 1.20 |
| CLIL (Geography) | 17.83 | 13.48 |
|  | 5.78 | 1.32 |

Table 9. Fluency rates in non-CLIL and CLIL essays


Figure 11. Number of words/sentence and words/T-unit in non-CLIL and CLIL essays

These differences are statistically significant according to a T-test (Words/Sentence: $\mathrm{p}=0.0097$, Words/T-unit: 0.0001). A feasible explanation for these findings is that, when it comes to academic writing, Spanish learners usually write longer sentences, in consequence more words. This is typically transferred by students into the L 2 , as might be the case here.

### 4.2.3. Complexity

Table 10 illustrates the finite plus non-finite clauses/T-unit ratios. The complexity mean in the non-CLIL essay is higher than the mean in the CLIL essay (1.54 vs. 1.30 ).

| COMPLEXITY |  |  |
| :--- | :---: | :---: |
| ESSAY TYPE | Mean | s. d. |
| Non-CLIL | 1.54 | 0.22 |
| CLIL (Geography) | 1.30 | 0.19 |

$\mathrm{p}=0.0177$
Table 10. Levels of complexity in non-CLIL and CLIL compositions

According to figure 12, CLIL learners made use of more finite and non-finite clauses in


Figure 12. Frequency of finite and non-finite clauses per T-unit in non-CLIL and CLIL essays
the language essay, as illustrated in the following examples written by the same learner:
47. Non-CLIL essay: When I get older I would like to travel all around the world specially I would like to go to New York. (1 T, 3 F, 2 NF)
48. CLIL essay: Between 1980 and 2010 the population has suffered a great change. (1 T, 1 F, 0 NF )

The CLIL composition accounts for less finiteness, to the extent of showing statistical significance in this measure ( $\mathrm{p}=0.0177$ ). Based on the fluency discussion above, more complexity was expected in CLIL essays due to the length of the sentences. Nevertheless, the data presented here do not support the idea that cognitively demanding tasks provide complex language production by L2 learners (Cummins 1984, in Whittaker, Llinares and McCabe 2011). This might be due to either a syntactic transfer from L1 into L2, or to a lack of the linguistic resources needed to write academically in a FL (Manchón 2009; Manchón et al. 2009, cited in Whittaker, Llinares and McCabe 2011).

### 4.2.4. Lexical Variety

In this case, lexical variation has been analyzed on the first 50 different content words or types as the results are greatly conclusive. Figure 13 displays the level of lexical richness in non-CLIL and CLIL essays.


Figure 13. Frequency of content words in the first 50 words in nonCLIL and CLIL essays

It is obvious that CLIL learners produced a higher degree of lexical variety in the non-CLIL composition ( $\mathrm{p}=0.0020$ in table 11).

| LEXICAL VARIETY |  |  |
| :--- | :---: | :---: |
| ESSAY TYPE | Mean | s. d. |
| Non-CLIL | 23.5 | 2.72 |
| CLIL (Geography) | 17.70 | 4.30 |

$\mathrm{p}=0.0020$
Table 11. Lexical variety in the first 50 content words in non-CLIL and CLIL essays

Examples 49 and 50 below, produced by the same learner, are evidence of this finding.
49. Non-CLIL essay: In my free time I like to see videos in youtuve, and go to the street with my friends and play football. 11 types / 22 tokens
50. CLIL essay: In the US the population has increase between 1980 and 2010. Also in Afghanistan but no so much than the US. 8 types / 21 tokens
"The unfamiliarity with the language of the disciplines" even in the L1 on behalf of secondary education students (Llinares and Whittaker 2010: 125) might explain this finding. The use of technical terms is essential in any subject (Llinares and Whittaker 2010). In Geography, the language is utilized "to observe the experiential world through the creation of technical vocabulary: a process of dividing up and naming those parts of the world which are significant to geographers" (Wignell et al., 1993: 137, as cited in Llinares and Whittaker 2012: 126). In this research, CLIL learners appear to have the lexis needed for the task, but their lexical variation is similar in the CLIL and the nonCLIL essays. These data support the idea that CLIL learners produce similar pieces of writing regardless of the teaching environment, either in CLIL or in EFL classes.

### 4.2.5. Grammatical Correction

The analysis of the number of errors per T-unit and per finite clause resulted in statistically significant differences ( $\mathrm{p}=0.0083$ and $\mathrm{p}=0.0127$ respectively in table 12 ).

| ESSAY TYPE | E/T |  |
| :--- | :---: | :---: |
|  | Mean and |  |
| s. d. | E/F <br> Mean and <br> s. d. |  |
| Non-CLIL | 0.37 | 0.30 |
|  | 0.27 | 0.20 |
| CLIL (Geography) | 0.77 | 0.63 |
|  | 0.33 | 0.32 |

Table 12. Levels of grammatical correction in non-CLIL and CLIL essays

More grammatical and lexical errors were made by Bilingual Section learners in the CLIL essay (figure 14).


Figure 14. Number and type of errors in non-CLIL and CLIL essays

This is probably due to the difficulty of, first, organizing data according to geographical criteria and giving "sequential and causal explanations", and, second, providing the correct terms of the discipline (Llinares, Morton and Whittaker 2012: 127-9).

The examples below account for different types of errors in the CLIL compositions:
51. Comparation of the population of US and Afghanistan. (Vocabulary transfer)
52. In 2010, as in the US, the population increase. (Grammar mistake)
53. Men have to went to war. (Grammar mistake)
54. There were lower population than in 2010. (Grammar mistake)
55. The population of US is really different of the Afghanistan's one. (Grammar mistake based on L1 transfer)

These mistakes are principally grammatical, although there are some instances of vocabulary errors. There are fewer cases of L1 transfer than in the EFL texts probably due to the repetition of words based on the cognitive demanding task.

### 4.2.6. Connectors

Contrary to the previous measures, in which CLIL learners always performed better in the general topic essay, in this case it is the CLIL essay that shows better results (figure 15).


Figure 15. Use of connectors in non-CLIL and CLIL essays

Table 13 accounts for the greater use of markers in the CLIL composition than in the EFL essay (mean: 1.01 vs. 0.53 respectively).

| CONNECTORS |  |  |
| :--- | :---: | :---: |
| ESSAY TYPE | Mean | s. d. |
| Non-CLIL | 0.53 | 0.22 |
| CLIL (Geography) | 1.01 | 0.44 |

$\mathrm{p}=0.0064$
Table 13. Use of connectors in non-CLIL and CLIL essays

The comparison/contrast topic clearly has influenced the CLIL written production as the organization of information according to similarities and differences
(Loranc-Paszylk 2010) requires the use of linking words, unlike in descriptive texts (EFL composition). This generic demand for markers brings about text sophistication to content-based texts. In the same vein, teenage CLIL students are expected to already provide coherent and cohesive short texts in both L1 and L2 (Whittaker, Llinares and McCabe 2011), for which the employment of transitions is vital.

With reference to the type of transition words utilized in the CLIL composition, they are similar to the connectors used in the non-CLIL essay above; an overuse of and is recurring and indicative of orality, thus showing little register knowledge (Barrio 2004, in Llinares and Whittaker 2010: 139):
56. They have more males and also more females.
57. In 1980 women and men were mostly the same and in 2010 too.

Some other linkers were used, too. Additive words like also, too, as well as were produced to add information (58). BS learners also made good use of the consequence word because to explain geographical facts (58).
58. In the USA women have more because they are healthier than men, so they live more.

## 5. Conclusions

In this study I have studied the written production of three groups of students (Bilingual Section, Bilingual Program and Non Bilingual). In each group a sample of 10 average students were selected. The study focused on writing, as an area unresearched at present, and yet important for the future of students in the educational system. The results have shown that BS students outperformed their BP and NB counterparts in all the measures analyzed, except for lexical variation. Similarly, BP students performed better than NB learners in most of the categories examined. However, the NB group produced a wider lexical variety than the other two cohorts and made a similar number of mistakes per T-unit to the BP learners. Additionally, I have compared the written production of BS learners in an EFL essay and a CLIL essay. The results have shown that they performed better in the EFL essay across all the measures analyzed.

The results of the first analysis answer the initial three research questions of this study. Regarding the first research question:

1. Will there be significant differences between the CLIL (Bilingual Section and Bilingual Program) and non-CLIL students (Non Bilingual) across the different writing measures?

CLIL learners produced a greater general production than their non-CLIL counterparts. However, there were only statistical differences in the number of tokens, favoring the BS group. NB learners produced fewer words in more sentences, thus simpler language, but the difference was not statistical. In the case of fluency, both the BS and BP cohorts performed better than the NB group. BS learners wrote more words and organized them in fewer sentences. No statistical differences were found as measured by complexity (average finite plus non-finite clauses per T-unit) between CLIL and non-CLIL learners. However, non-CLIL students outperformed CLIL (both BS and BP) learners in lexical variation. The reason for this might be the longer texts written by BS students, which can lead to repetition, as the students may develop the topic more. Concerning errors, there are no statistical differences between CLIL and non-CLIL learners. Without a formal analysis, the texts gave an impression of containing similar mistakes, mainly based on L1 transfer. In the use of connectors, all the groups performed in a similar way because content-based instruction does not always affect cohesion. An overuse of and by the three cohorts indicates oral language, thus BICS.

As regards the second research question:
2. Will there be significant differences between the Bilingual Section and the Bilingual Program groups across the different categories?
it has to be stated that the BS and BP groups performed quite similarly across all the categories. Statistically speaking, they only differed in number of tokens produced.

About the third research question:
3. Will there be significant differences between the Bilingual Program and Non Bilingual cohorts across the different categories?
there are significant differences between the BP and NB students in the number of tokens produced and fluency rates favoring the CLIL learners, while non-CLIL students produce a wider lexical variety.

The fourth research question refers to the second analysis of this study, which looks at CLIL and non-CLIL essays written by BS students:
4. Will there be significant differences in writing between the EFL essay and the CLIL essay by Bilingual Section students?

BS learners performed significantly better in the non-CLIL essay across all the categories except for connectors. Nevertheless, the difference in general production is only obvious in the higher number of words written in the EFL composition. The scarce use of Non Finite clauses in the CLIL essay indicates a lack of academic writing. This is supported by the lower lexical variation rate, too. Moreover, more errors were made in the CLIL essay perhaps due to the cognitive demanding task. In the case of cohesion, more connectors were used in the CLIL essay, contradicting the belief that this aspect beyond the sentence level is not much affected by studying content subjects in a FL.

Dutro and Moran (2003: 4) posit that many intermediate and advanced English learners do not receive any formal language instruction (California Department of Education 2000), which leaves them fluent in conversational language (BICS), but "with critical gaps in academic language knowledge and vocabulary" (CALP). The present research shows that the everyday language reached higher levels in the BS learners than was the case for cognitively more demanding academic language. This is shown by the minimal differences encountered between the EFL and CLIL essays. The beneficial effects of CLIL on spoken language is evident in a study by Ruiz de Zarobe (2008) of non-CLIL and CLIL groups in oral and written competence, which indicated that CLIL learners are better at oral production (Ruiz de Zarobe and Lasagabaster 2010b). Similarly, Lose's (2007) secondary students achieved better results in general L2 competence than in academic language (Dalton-Puffer 2011). This reflection of
orality in writing is very common among bilingual learners, even when writing in subject areas like Geography. Owing to the long term success students might achieve through academic language proficiency (Dutro and Moran 2003), teachers should focus on the difference between informal and academic writing in the bilingual classroom, and researchers should investigate this aspect more deeply.

On average, CLIL learners showed a greater writing development than EFL students. However, these results should be considered in the light of the number of exposure hours to the FL in the three groups (Bilingual Section 3780, Bilingual Program 1064, Non Bilingual 672). In this case, "the sooner, the better" idea in foreign language learning should be refuted. In my study, the BP students performed similarly to the BS group although there is a difference of more than 2000 exposure hours. However, the differences in written production between the BP and the NB cohorts are more comprehensible due to a lesser difference of exposure hours.

Considering the minimal differences between the BS and the BP students in the measures studied, an early CLIL start may not be necessary. Educational administrators might wonder, thus, if it is necessary to invest so much money in CLIL instruction in primary education or would it be enough to start at a secondary level. Related to this, we must say that this research only looks at writing, leaving out other language skills in which CLIL learners are supposed to do better. Consequently, further research on how Bilingual Section and Bilingual Program students perform in the different language skills should be carried out.

Regarding CLIL instruction, due to ineffective, time-consuming guidelines on how to teach content subjects, this might be a tough moment for CLIL teachers (Coyle 2011, Ting 2011). Despite all the enthusiasm CLIL teachers tend to show, frustration is around the corner mainly due to a heavy workload resultant from insufficient materials, lack of technology and lack of incentives. In order to avoid this problem, Madrid bilingual teachers are being rewarded with a pay rise and training courses in the target countries.

Frustration might also come from being moved from one school to another every year in spite of having worked hard to implement or improve the bilingual program in
one school (Lasagabaster and Ruiz de Zarobe 2010). A joint effort of educational administrations, parents and teachers is essential to keep the continuity of CLIL teachers (Navés 2009).

CLIL instruction might lead to sacrifices; over-simplification of content to accommodate language or emphasis on content acquisition in detriment of linguistic skills (Dutro and Moran 2003). This is shown in the similar grammatical structures and vocabulary used by the BS students in both the EFL and CLIL essays. Because of this, the gap between what the students know and what they need to know might grow (Stanovich 1986, in Dutro and Moran 2003) as they advance through the grades.

According to Coyle (2010: viii), "without appropriate teacher education programs the full potential of CLIL is unlikely to be realised and the approach unsustainable" (cited in Gutiérrez Almarza, Martínez and Llavador 2012). In this sense, Dutro and Moran (2003) claim that "many mainstream content area teachers teach English Learners and receive little or no support in how to adapt teaching methods to ensure they have meaningful access to the content" (p. 25). In the same vein, Fernández and Halbach (2011) suggest that CLIL teachers should receive both linguistic and methodological training, and self-assess their own teaching practice "rather than subscribe to principles which are transmitted unquestioningly across the teaching profession, then the way is open for teachers to create their own organic practice" (Coyle 2011: 67). The fact that CLIL learners made fewer errors than non-CLIL students supports CLIL in the sense that focus on meaning still has an effect when there is a lot of input. This can be connected with appropriate pedagogic planning of lessons by teachers with the aim of diminishing the learners' language mistakes through both implicit and explicit correction (Dalton-Puffer 2007, 2011).

Thus, teachers should be provided with "information on the role language plays in the creation of disciplinary knowledge in their subjects, and the features of their written and spoken registers" (Llinares and Whittaker 2010: 128), as well as on the different genres relevant to their subject matters (Morton 2010). Dutro and Moran (2003) compare the role of a content teacher with that of an architect in the sense that they both implement a well-designed approach. In this sense, CLIL teachers "must learn to analyze academic language in terms of the functions, forms, and fluency features and
address these in the planning process" (p. 6). The results of the second analysis of the present study, which show that CLIL learners perform better in a general topic than on a Geography genre, are symptomatic of this necessity.

Hence, CLIL teachers are required to escape from traditional methodologies into new ways of teaching incorporating both content and language, following the cooperative principle, and using scaffolding techniques and assessment procedures based on authentic reflections of meaningful opportunities (O`Malley \& Valdez Pierre, 1996).

In addition, collaboration and carefully planned policies have been implemented differently across different regions. In Lasagabaster and Ruiz de Zarobe's (2010: 292) view, "putting CLIL into practice has to be gradual and carefully monitored; otherwise it will not work out irrespective of the context".

By closely examining written production in bilingual and non-bilingual students, I aimed to shed some light on the issue of success or failure of Madrid's bilingual program. Suffice it to say that this is a small study, which means it is more difficult to achieve statistical significance, but it is still indicative of the need to work on the language of the school subjects. Additionally, further research on how Bilingual Section, Bilingual Program and Non Bilingual students perform in different linguistic skills, not only writing, should be carried out.

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## 7. Appendices

### 7.1. Personal interview for Sample A (Bilingual Section students)

## PERSONAL INTERVIEW ON BILINGUALISM

## Name:

DOB:
Nationality (if foreign, say how many years you have lived in Spain):
Mother's nationality:
Father's nationality:
Mother's profession:
Father's profession:
-Answer the following questions as accurately as possible:

1. At what age did you start learning English?
2. At what age did you start bilingual education? In which grade were you?
3. How many years have you been enrolled in the bilingual program? In which school/s?
4. Which content subjects have you learned in English? For how many years?
5. Do you think having learned content subjects in English has helped you improve your knowledge of the language? Why? Why not?
6. Why are you currently enrolled in the bilingual program?
7. Grade how important bilingual education has been to you from 1 to 10 ( 10 as the highest score):
8. Do you speak / listen to English outside school? How?
9. Have you ever attended private English lessons? If yes, since what age and for how long?
10. Which English-speaking countries have you visited, if any? On how many occasions?

### 7.2. Personal interview for Samples B and C (Bilingual Program and Non Bilingual students)

## INTERVIEW (ENGLISH LEARNING BACKGROUND)

## 1.

Nombre:
Fecha de nacimiento:
País de nacimiento:
Nacionalidad:
Nacionalidad del padre:
Nacionalidad de la madre:
Profesión del padre:
Profesión de la madre:
2. ¿A qúe edad empezaste a estudiar inglés?
3. ¿Has recibido clases particulares de inglés? ¿Durante cuánto tiempo?
4. ¿Dónde has cursado la educación primaria?
5. Aparte del centro actual, ¿has estado en algún otro instituto? ¿Qué cursos?
6. ¿Has estudiado en algún colegio / instituto bilingüe?
7. ¿Has estudiado otras asignaturas en inglés, aparte de inglés (sociales, ciencias, educación física ...)? ¿Durante cuánto tiempo?
8. ¿Te gusta el inglés? (¿Del 1 al 10 qué nota pondrías a tu interés por esta asignatura?)
9. ¿Estudiarías inglés si no fuese una asignatura obligatoria? ¿Por qué?
10. ¿Ves películas o series / escuchas música en inglés? ¿Con qué frecuencia?
11. ¿Has suspendido inglés alguna vez? ¿Qué nota sueles sacar?
12. ¿Te gustaría tener más horas de inglés a la semana? ¿Por qué?
13. ¿Te gustaría estar estudiando en un instituto bilingüe? ¿Por qué?

### 7.3. Cloze test

## Cloze: Let it be



Fill in the gaps with a word from the box. The first one has been done as an example. There are 4 words that you don't need (distracters). $20 \times 0.5=10$ marks Sir Paul McCartney is probably (0) $\qquad$ most famous pop musician of the 20th century. (1) $\qquad$ with John Lennon he formed the Beatles, and since their break-up has had a long solo career. Altogether he has (2) $\qquad$ over 500 songs including Yesterday, the most played song of (3) $\qquad$ time. He has recently also written a classical piece called Standing Stone which was premièred in 1997. His wife Linda died of cancer in 1998. He has four children.
When did you and John Lennon meet? 'In 1957, when I was 15 and he was 16 and we were both still at school. We had a lot in common, we were both (4) $\qquad$ about music and we both lost our mothers when we were teenagers. My mother had died of cancer the year before and John's mum was run over by a (5) $\qquad$ a year after we'd met. So there was always that special bond (6) $\qquad$ us.'
When did you and John begin to write songs together? '(7) $\qquad$ was when I was still at school and John was at art college. We (8) $\qquad$ to write at my house in the afternoon when my dad was working. We had about three hours before my dad (9) $\qquad$ home. John had a second-hand guitar and I played a bit (10) $\qquad$ the piano. We had an old school notebook and I used to write at the top of the page A Lennon and McCartney original. We always said to each other that we'd be the (11) $\qquad$ songwriting team in the world, which is funny (12) $\qquad$ that's exactly what we became. We (13) $\qquad$ the Beatles in 1960.'
Are any of your lyrics about real people and events? 'Usually the Beatles' songs which were my (14) $\qquad$ weren't personal, but there were some (15) $\qquad$ : for instance, I wrote Let it be about my mother, (16) $\qquad$ name was Mary. One night, when the Beatles were breaking up and I was feeling very depressed, I had a (17) $\qquad$ where I saw my mum, who had died when I was fourteen. It was great to see her again and in the dream she said, 'Don't worry. Everything will be (18) $\qquad$ .' It was such a nice dream I woke up and I felt much (19) $\qquad$ and I started to write Let it be. Afterwards, thousands of people wrote to me saying that the song had helped them in (20) $\qquad$ times. Later, after the Beatles had broken up, I formed Wings and I wrote a lot of songs to my wife Linda, like Silly Love songs and The Lovely Linda.'

| all | all right | because | become | better |
| :---: | :---: | :---: | :---: | :---: |
| between | car | difficult | dream | exceptions |
| formed | got | greatest | guitar | happy |
| idea | it | mad | on | other |
| the | together | used | whose | written |


| 放 |  |  |  |  |  | 2. | 3. | 4. | 5. |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| 1. | 7. | 8. | 9. | 10. |  |  |  |  |  |
| 6. | 12. | 13. | 14. | 15. |  |  |  |  |  |
| 11. | 17. | 18. | 19. | 20. |  |  |  |  |  |
| 16. |  |  |  |  |  |  |  |  |  |

## 7. 4. Geography comparison essay

-Analyze the following population pyramids and write down an essay comparing the evolution of population in the USA and Afghanistan.



### 7.5. Written compositions by Bilingual Section students

## Student 1

My name is Francisco Gimeno Barrio. I am 14 years old. My parents are Francisco José Gimeno and Maria Isabel Barrio. I was born in the second of July of 1998. I also have a brother, Fernando Gimeno Barrio. I was born in Madrid, Spain.

I'm a boy with brown hair, brown eyes, curly hair. I'm medium size tall, a little bit fat. I'm sympathetic, happy and I don't get angry too much but when I get angry I think I'm dangerous.

I like football, basketball, tennis....Almost all of sports. Also read, listen to music, watching TV, play computer, play PS3 and going out with friends.

I like wearing sports clothes.
I would like to be coach of a football team of teacher but I don't know exactly.
I think I help my friends and they know they can tell me whatever they want because I don't say nothing.

This is my life.
(153 words)

## Student 2

My name is Said Aarón, I'm from Madrid but my mother is from Morocco and my father is from Germany. I'm 14 years old and I was born in the 23 of November of 1998.

My favourite colour is green. I like doing sports such as karate, football, basketball. I enjoy going out with my friends and playing computers games with my friends.

I'm in $3^{\circ}$ E.S.O. and I have been studying english for 9 years and 3 years french. In the future I would like to study sciences technologuies or something about security.

Finally I would like to say that I'm a funny and happy boy, very social and intelligent.

## Student 3

My name is Leyre Gaztelu. I was born in the 1998, the $15^{\text {th }}$ of July. I am 14 years old. I was born in Madrid, Spain. I live with my father, Francisco Javier Gaztelu, my mother, Maria Luisa Cachón, and my brother, Ander Gaztelu.

I am a tall girl, with blue eyes and brown hair. I like listening to music, going out with my friends, doing sports, which I do twice a week. I like football, basket and dancing.

My mother is from Madrid, she has 6 brothers and sister, and she has been a doctor more than 10 years. My father is from Pamplona, Navarra, and he has 1 brother and 1 sister, he works in an office. And my brother is from Madrid, as me. We've been studying since 6 years, in the Alberto Alcocer school, and now I am in third of high school. I also play the piano.

I would like to study psicology or something related for helping people with their problems, and solve them. Or biology, medicine, something similar.

I'm a good friend, nice, I like helping everyone, I'm a good student, sister and daughter.
(191words)

## Student 4

In this redaction I'm going to introduce about my self. My name is J. David González, I'm 14 years old but on July I'm going to have 15, I like every sport, but, my favourite sport is football like a lot of people. Fisically I'am blonde, with a short cut hair, I'm medium sized tall $1,70 \mathrm{~m}$. Psicologically I like animals a lot I have a parrot and two dogs, people describe me such a kind person and very very funny.

I love TV programmes like la que se avecina, two men and a half and CSI Miami Bacle. When I was a child I wanted to be an actor.
I don't like studying although I have good marks. One of my best hobbies is playing computer games of ps3, I have played professionally to some of them. Mi family is the most important thing for me is the people who is going to stay with me in the future, and also my friends that make me laugh.
(168 words)

## Student 5

My name is Patricia, I'am fiveteen years old, I born in Madrid, and I still in Madrid.
I life in a aparmet, with my family, my mother, who's name is Maria Consuelo, my father, Santiago and my brother, Serguio, he is seventeen, so he is older than me, and recently my father bring a dog to our house, who's name is Chula, she only have two years if you count like human years, but if you count by dog years she is fiveteen as I'am.

My hobbies are play the piano, dance and read, my favourite are of adventures and mistery, but now I'm reading the triology of "Songs for Paula" and now other triology of the same author. My favourite author is Blue Jeans, and the books I meancion are written by he. I also like to go to the cinema, but I dont go very often because is very expensive, and none with my friend's we start to go to lightpubs, in the future i want to study psicology, but by the moment I'm not very sure, and I also, if it's posible, to study to an oder country. My favorite band is One direction and my favorite song is Dont you worry chield by the swedish house magic.
(210 words)

## Student 6

My name is Ana. I'm 14 years old. I live in Madrid, Spain. I'm tall, I have black hair and dark brown eyes.
I have one sister younger than me. I live with her and my parents in a flat.
I go to a bilingual highschool called "Gomez Moreno", before going to this highschool I went to a primary school called "Alberto Alcocer" which was also bilingual.

In my free time I like going out with my friends, watching TV and playing with my sister.
I play paddle and I've done karate for 5 years.
When I get older I would like to travel all around the world specially I would like to go to New York.
(117 words)

## Student 7

In this redaction I am going to write about myself, I'm gonna start writting general things about me: My name is Iván García Asorey, I am 14 years old, I am from Madrid (Spain) and a I'm a boy.

Now, I'm gonna talk about specific things about me: I am $1,77 \mathrm{~m}$ tall, I study in a high school called IES Gómez Moreno, in Madrid, And my grades are not very good, I thank I have good capacities, but i am so lazy.

I have many hobbies, such as friends, videogames, playing airsoft with my friends and Music, Music is my passion, actualy i am starting mixing songs, and creating my own songs, I don't think i have a perfect life, but, it's nice. So, this is how I can introduce myself.
(132 words)

## Student 8

Hi. My name is Carlota and I'm a fourteen years old Spanish girl and in this text I will introduce my self. I live in Spain, madrid, and I study in Gomez Moreno high school. In my free time I like to draw, play videogames, chat through internet and playing the piano.
Im not really sporty, I don't like sports. When I become older I will like to be a graphic designer. The one of agust of this year I will be fitnteen years old, because is my birthday. I have one sister called Paula. I also have a lot of friends, thoug Im really shy, my best friends are Andrea and Noelia. I do a lot of things with them. Im not a very tallented student, Im just a normal one. Im Carlota and this who I am.
(139 words)

## Student 9

Hello, my name is Daniel. I'm fourteen years old, In my free time I like to see videos in youtube, and go to the street with my friends and play football, Also we go to the cinema. My favourite colour is the red. I live in Madrid with my mother and my father. I have a cat called Flypy that is brown. I'm studying in the high school "Gomez Moreno" in the bilingual section, I'm in $3^{\circ} \mathrm{A}$. A big part of my family live in Zamora and on holidays me with my family go to Zamora. We usually go there on summer. I'm in a football team called "Antonio Mata", I play with my friends of the school.
(118 words)

## Student 10

My name is Marina. I'm 14 years old. I was born in Madrid on $28^{\text {th }}$ of May, 1998. I have two sisters and one brother. their names are Rebeka, Deborah and Javier. My brother is the youngest in the family.

In my free times, I usually play tennis or go out with my friends, we always go to the shopping center or we eat at "Macdonals". In the night I usually have parties, so that is not a problem of boring.

I go to Gomez Moreno's School, I go 6 hours a day in the playground I eat with my friends and we talk about boys.

I have very poor califications thats why my parents are angry with me. But im studing.
My teacher at this moment is telling me to finish. So bye people.
(135 words)

### 7.6. Written compositions by Bilingual Program students

## Student 1

My name is Ramona and I am 14 years old. I have one sister, she doesn't live with me and my parents. I am from Romania, but I came here when I was 6 years old.

I like to meet my friends, to read interesting books, to listen to music...I love photography. Last Christmas, my parents gave me a camera and I use it always when I have time. Also, I love to travel. I was in Venecia and I like it very much. I like to go to America, but I don't think that I'm going to go soon.
(100 words)

## Student 2

Hello!! My name is Melani. I am 14 years. I live in Madrid, Spain. I born in Spain. I am medium-height, I have long brown hair and brown eyes. My family is niece.
My family: my father, his name is Walter, my mother, her name is Elizabeth, I haven't brothers or sisters.

My hobbies are listening to music, playing the computer, go with my friends of the street. I like cook and swim.

I like cook dessert, go to travel and the food I like ice-cream, tea of limon, the chocolate and the sweet.
I don't like go the shopping alone and the food I don't like cheese, beans and green beans.
I study in the I.E.S. Gómez Moreno. I am in 3 eso C.

## (125 words)

## Student 3

My name is Victor Manuel and I live in San Blas, Madrid.
I study in I.E.S. Gómez Moreno and I'm 14. I have some friends and different hobbies, some of them are play videogames, go out with my friends and do sport.

My favourite sports are swimming and taekwondo.
I like also ride my bike.
In my family we are 4 persons: my parents and my brother. In the future I want to be an architect.
(76 words)

## Student 4

My name is Luba, I'm 15 years old. I live in Madrid. I have 2 brothers: 1 older sister and 1 younger brother.
My favorite sports are gymnastics. I practice this sports because its funny and I like it. I practice when I have 7 years old.
My birthday is on 18 of March. My favorite color is blue. My hobbies are listen to music, sleep, and go with my friends.
I don't like go to school because I don't like study, but I like then because I stay with my friends.
My favorite subjet is Physical Education.
I have a tortle. His name is Puka.
My favourite food are spaguetti.
In holiday I going to the beach and village.
I like so much going to shopping because I like clothes and my favorites shops are: Bershka, Blanco, Foot Looker, Stradivarius, Inside..
My best friends are Marina y Ana because hers supports me.
(153 words)

## Student 5

Hellow my name is Paula, I'm not very tall, I have a red long, curly hair and I have a piercing in the nose. I haver a brother, he is ten years older than me.
I like listening to music and dancing, I went a dance academy when I was six years old but now I go to a English academy two at week.
My favourite subjet in the school are English and biology. My best friend is Diana. I have very reliance in her.
On holidays I usually go to the beach with my cousin and my ankle in Murcia, and with my parents I go to a differents places of Spain. I like travel.

I have two pets a rabbit and a dog. Their name are Pichi and Cola both are black and white.
I was born on $25^{\text {th }}$ of April in 1998, my character is very strong, very polite, I very stabbord I always want to have the reason.
I want to be psicology or teacher for the children.
I practise swimming once at week and my favourite food are macaroni and paella.
(186 words)

## Student 6

My name is Eva, I'm 14 years old. I have one brother, his name is David. My hobbies are listening music, play with my brother and my cousins. I'd like to meet friends in the park or in the cinema, I'd like watching TV. I haven`t got any pets however my cousin has a dog and it is like it is mine.
I would like to be psicollogy. I like go on holiday to the beach with my family because there I have some friends. I don't like the spider. I hate it.

## Student 7

Hi, I am Celeste and I'm 14 years old.
My family and me come from Perú. I live in Madrid. I study in I.E.S. Gómez Moreno. I have got a sister. Her name is Fiorella and she studies in the same high school that me. She is younger than me. She's 12 years old.
The names of my parents is Carmen and Juan.
I love dancing and listening to music.
My favourite food is pizza and my favourite drink is coca cola.
My favourite animal is dog and I would like to have a Chihuahua.
I like playing football and basketball.
I practice swimming with my sister and my cousins. I had a good time!

## (115 words)

## Student 8

My name is Aaron and I have fourteen years old. My favourite hobbie is to play videogames, because they can explain good stories and you can decide how to change them.
You can live into a good videogame because if it is, the hours that you pass playing it can pass very quickly easily.
The videogames are for me like wine, they can be very poor and bad, or they can be famous, or the company that made the game become famous...
Talking about me, I'm a poor guy that has a brother, a mom, a dad and nothing else living with him.
I have a good girlfriend, friends and things to do at the day to don't get bored.
I can say that my life is simply and a little bit boring so this is it.
(137 words)

## Student 9

My name is Miguel I'm 15 years old I have brown eyes and brown hair. I love play the guitar and do judo. I practice judo since I'm six and I brown belt, I would like exam for black belt in no much time. I have one brother his name is Enrique he is 14 years old. I have a chinchilu his name is Boliche it is very intelligent and it runs a lot. I love metal music my favorites styles are Viking and Folk Metal. My favorites groups are Enfisenum and Warcry. My friends are David, Victor and Quique, they are strange, we do many crazies in the street, we like to climb walls and we do a little of $\qquad$ all of us minus Quique.
(127 words)

## Student 10

Hi! My name is Iñaki Mora, I live in Madrid and this is my description.
I like playing football, with the PS3 and meet with my friends.
In the school I go well, but I don't like studying. I love my family, too. I am short and thin, friendly. I have some pets: 30 fishes and a little dog, but he is 8 years old. I like doing sport, in my life, I did: ping-pong, badminton, football and padel. In the holidays I like travelling far, know about different places, etc. I have beware with the food, because I'm (celíaco); but I like eating at all. My favourite things is my mobile phone, (113 words)

### 7.7. Written compositions by Non Bilingual Students

## Student 1

My name's Lucía. I'm 15 years old. I have 1 brother, his name is Arturo. I live with my parents and my brother. I have two birds, they are blue and white. I like languages, play clarinet, travel meet with my friends, sweets and listen to music. I don't like the noise.

I'm tall. I've got brown eyes and brown hair. I play athletics because I like run and jump.
In my free time I like write, paint and listen to music. My favourites groups are Extremoduro, sum 41, Rihanna and Michael Jackson.
(93 words)

## Student 2

My name is Nuria, I'm fourteen years old. I have dark brown eyes and curly, dark brown hair. I usually have a ponny tail. I'm short and slim.

I'm funny, clever, friendly and honest.
I live in Madrid with my father, his name is Fernando. He is tall, he has short, black hair and green eyes. He is forty one years old.

I love gymnastics and dance, but I hate playing football. I like watching TV, surfing the net and using the mobile phone, but I don't like reading very much.
(91 words)

## Student 3

My name is Irina Barjollo Magro. I'm 14 years old. My birthday is on $8^{\text {th }}$ of June. I am studying in Vallecas I since 2010/2011. I live with my mothers calls Loli, my father calls Manuel and my brother calls Mauricio. I like read books, listen to music, surf the net, play computer games, go out with my friends and go shopping. I don't like study it's too boring.
I live in Vallecas (Madrid).
I have got brown eyes. My hair is long, dark brown, and wavy. I'm medium-height.
(89 words)

## Student 4

My name is Raquel. I'm fifteen years old. I'm Spanish. I'm clever, hard-working and helpful. I've got brown eyes. I've got long, dark brown and straight hair. I'm medium height and I'm medium built. I've got glasses.

I live in Madrid whit my family. My father's name is Fernando. My mother's name is Elena and my brother's name is Fernando like my father.

I like listening to music and watching TV. I don't like reading books and playing volleyball.
(79 words)

## Student 5

My name is Hasna Mabchour. I'm fifteen years old. I'm live in España (Madrid). I like chocolate cake. My favorite food is Pasta and Pizza. I like jeans and skirt. My favorite colour is blue and red. I prefer yellow colour. I have one brother, he's name Karim. I have mother and father. My parents name Milouda and T.bari. I don't have animal's. I like a dog. I'm honest and loyal. I like listening to music. I don't like read a book. I'm slim. I have long hair. I have black eyes and have big mouse.
(96 words)

## Student 6

My name is Shirley. I'm fourteen year old. My hair is long dark and curly. I'm Shy and quit. I live with my family, mon, dad and my two brothers. My mother name's Sixta she's fourty two year. My father name's Hernán he's fourty three year old. Dario and Cristhian are my brothers. I like playing volleyball, listening music and reading books. I don't like studying, reading mazine.
(68 words)

## Student 7

My name is Iván. I'm 15 years. I live in Vallecas. I am honest and intelligent. I am stronger and tall. I play football. I ride a bike. I like the extreme sport. I like a fruit, chocolate, soup and chicken. I don't like a vegetable. My family is large. They are happy, simpatique etc. I like listening to music. I like car game and football game. I have got green eyes and yellow heard.
(75 words)

## Student 8

My name is Ronny, I am 15 years old, I live in Madrid, and I study in high school "Vallecas 1". I am friendly, polite and lazy, I've got hair short, black and streak. My eyes are dark brown and I am small, and think. I live whit my parents and my sister. I like play the drum and guitar but I don't like do my homework.
(67 words)

## Student 9

My name is Celeste I'am 14 years old. I live in Madrid. I born in Madrid.
I have got a brown, wavy, and medium length hair.
I have got a dark brown eyes.
I'am very honest and loyal.
I look like my mother, I have a dark brown eyes.
I like chocolat, I don't like the bikes.
My mother live in Santiago de Chile, she's name is Verónica, and she like chocolat.
She has got a dark brown eyes. She is tall
My father I live in Madrid wich my and my uncle.
He like chips.
He don't like the footbool.
He has got a brown eyes.
He has got a brown, short hair.
He's tall.
(116 words)

## Student 10

My name is Irene. I'm fourteen years old. I'm Spanish. I am a ordinary looking. I have got brown eyes. I have got brown eyes. I have got long blonde straight hair. I look like slim and tall.
I am like polite, lazy, easy-going, generous, friendly and happy.
I live in Madrid, with my mum, dad and my brother.
Their names are Marga, Carmelo and Javier.
I like playing basketbal, but I don't like playing football.
I like the animals, the children's.
I like the chocolate.
I like watching TV, chatting, listening to music, etc.
(95 words)

### 7.8. CLIL compositions by Bilingual Section students

## Student 1

In the U.S in the 1980's the population was kind of great in compare with Afghanistan.
In 1980 in the US there were more male than in Afghanistan and more female. I think this is because Afghanistan is a developing country.

In 2010 the population in Afghanistan increase a lot in male and female. The U.S.'s population also increase but not as much as Afghanistan.
(65 words)

## Student 2

Comparation of the population of US and Afghanistan between 1980 and 2010
The population of US is really different of the Afghanistan's one. Between 1980 and 2010 the main population changed even more.

In 1980 the main young male population was 11 million and the main female population was 11 million as well in US.
In Afghanistan, the main young male population was less than 0,8 million and the female one even less than that.

In 2010 the main population of US was almost the same than in 1980 but in Afghanistan were more than 1,2 millions of males and females.

The conclusion is, in US the main young population didn't change a lot but in Afghanistan yes.
(118 words)

## Student 3

In the US the population has increase between 1980 and 2010. Also in Afghanistan but no so much than the US.

In the US between the 1980 to the 2010 population has increase. I think there are more females than males in the 1980 's, and in 2010 also.

Also in Afghanistan population has increase a lot. I also think there are more females than males in 2010, but in 1980 I think there are more males than females.

There's a lot of more population in the United States than in Afghanistan. In 1980 and in 2010 the US have more population than Afghanistan, they have more males and also more females.

## Student 4

US and Afghanistan
In 1980 in the US there were lower population than in 2010. In 1980 women and men were mostly the same and in 2010 too.

In 1980 in Afghanistan the population was lower than in 2010, there were more men than women. In 2010, population increased and there were also more men than women.

Comparing US with Afghanistan we realize that the US had many more population in 1980 and in 2010, maybe because it is a large country and very famous and attractive to all people. Afghanistan is not attractive to people because of wars and deaths. Its a poor country.

The highest population in millions of Afghanistan is 2.4 m and in the US is 12 m . There are 10.4 millions of people of difference in 2010 between both (women)

In 1980, the highest population in Afghanistan is $1,4 \mathrm{~m}$ and in the US 10 m . There are $9,6 \mathrm{~m}$ of people of difference, in women.

There are lots of difference population between both countries.
(170 words)

## Student 5

Male population in US in 1980 was a little bit larger than female population in 1980 towards the age of 50-59, after this ages female population was larger than male one. The reason can be the second World War, and also the first one, this is the reason because female population became larger at the age of 50 or 60 .
Male population in Afghanistan in 1980 was larger than female population. We can appreciate that in both graphics, female and male, decrease progresively, and make like a semiarch. This is because in Afghanistan there is hungry and little water, so people's life expectancy is lower.
The population of male and female in the US in 2010 is larger than in 1980. Until the age of 70 , the population between male and female is the same, but after that the population in female became larger because the Second World War.
The population of male and female in Afghanistan in 2010 is larger than in 1980. And also happens the same, the life expectancy is less, so there is less adult people.

## Student 6

## Population Changes

In 1980 population between the US and Afghanistan was very different. In the US there were much more population. More children, more adults, and old people. It isn't much differences between men and women, in both cases. In Afghanistan there was little population, the most abundant were babys, which were at list 1,3 millions then population (adults) start to decrease a lot.

In 2010 population has changed, in the US at that moment were more children, adults, and old people, but still been more women than men. In Afghanistan population have increase, but we cannot see so much difference, although children population have increase to 2,4 millions. And there's not more men or women, they seem the same.

Population in the US have always been higher than in Afghanistan between 1980 and 2010, there is a big difference between both countries.

## Student 7

In 1980, United States had a higher population than Afghanistan, but in Afghanistan there are more childs of $0-4$ years old, we observe a very good example of a developed and non developed countries.

In 2010 we can observe a change in the quantity of population in both cases they grow but there is still a big difference in middle age people in Afghanistan are less than in United States.
(70 words)

## Student 8

Here we can see a population pyramid of the US and Afghanistan of the 1980s and 2010s.

We can see that the USA has a bigger life expectancy because is a developed country and have developed new medicines.
In the 1980s the USA has a bigger life expectancy than Afghanistan because in Afghanistan there is also a lot of war and it's a developing country. In 2010s Afghanistan has improved the data of children and teenagers but it hasn't change a lot. In the case of the USA in the opposite they have improved everything because also they have developed new medicines.

In the 1980s women have the same life expectancy as men but less in 2010s because there women are considered less than men. In the USA women have more because they are heathier than men, so they live more.

## Student 9

## US

Between 1980 and 2010 the population has suffered a great change.
In 1980, there was the same number of people from the age of 0 to 54 , but from the age of 55 to $100+$ there were more women.

In 2010 the population increased, however the female and male population had the same differences as in 1980, there were more females than males, that's because the live expectancy of a woman is higher than the one of a man.

## Afghanistan

In Afghanistan is the opposite of the US. In 1980 male lived longer than women, there were less females than males.

In 2010, as in the US, the population increase, but there were more males than females.

## Student 10

The pyramid of USA in 1980 shows that more or less, are the same amount of men and women, but the women life expectancy is more because men have to went to war. In the second pyramid of 2010 you can see a increase of the population but is still more or less equal the number of women and men, and women still have more life expectancy.

The pyramid of Afghanistan in 1980, shows a little population, and very few adults, it also show that theres more men than women but the women still living more. In the second pyramid you can see a big increase of the population, but theres also more mens and women also have more life expectancy.

If we have to compare them we should say that theres a big difference between population, because there is more population in the USA with a huge difference, and theres a little in Afghanistan, there are also more adults in USA, and high expectancy is also higher.
(168 words)

