

Towards Multilingual Education

Basque Educational Research
from an International Perspective



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Chapter 9

The Age Factor in Bilingual and Multilingual Education

Introduction

The effect of age on second language acquisition (SLA) is a controversial area which has received much attention in SLA research (Harley & Wang, 1997; Hyltenstam & Abrahamsson, 2003; De Keyser & Larson-Hall, 2005; Singleton & Ryan, 2004). The idea that children pick up languages more easily than adults is very popular. It is not only based on research studies but also on anecdotal evidence of young children learning languages faster than their parents when a family moves to a country where another language is spoken. These contexts with a lot of exposure to the target language both at school and outside school are considered natural language environments as compared to formal contexts where exposure to the target language takes place only at school. In this chapter, we summarize very briefly the Critical Period Hypothesis and the main findings in natural contexts to focus on the age factor in formal contexts and particularly in Basque schools.

The Age Factor in Language Learning at School

Research studies conducted in natural language environments tend to support the idea that 'earlier the better' (De Keyser, 2000). These studies tend to prove that older learners present initial short-term advantages in morphology and syntax but in the long run, younger learners achieve higher levels of proficiency than younger learners (see Singleton & Ryan, 2004 for a review). Krashen *et al.* (1979) already pointed out long ago that there is the need to distinguish between rate of acquisition and ultimate achievement. The early exposure to the second language has advantages on ultimate achievement, but not on the rate of acquisition in the early stages. For example, Snow and Hoefnagel-Höhle (1978) proved that

younger learners outperformed adolescents and adults after approximately one year of exposure in a natural environment.

The most popular explanation for the effect of age on second language acquisition has biological foundations and it is known as the Critical Period Hypothesis (CPH). Critical periods refer to periods of time in life when human beings or animals are sensitive to external stimuli and can explain some aspects of human and animal behavior. Penfield and Roberts (1959) and Lenneberg (1967) were the first to apply this hypothesis to language acquisition. There is no basic agreement about the necessary conditions for supporting or rejecting the CPH. For some researchers the CPH would exist only if *'there is a discontinuity in the slope of decline in L2 proficiency situated around the terminus of the critical period and no second language learners starting after the terminus period should demonstrate achievement of native-like levels'* (Bongaerts, 2005: 259). Several research studies have found that this is not the case and it has been pointed out that not all learners acquiring the second language before the age of seven acquire native proficiency. However, early starters usually achieve higher levels of proficiency than late starters, at least in natural contexts but the age factor in second language acquisition is still a very controversial issue (Birdsong, 2004; Bialystok, 1997; Bialystok & Miller, 1999; Long, 2005; De Keyser, 2000, 2006).

New psycholinguistic approaches to the study of language processing that can contribute to the study of the CPH are neuroimaging technologies such as functional magnetic resonance imaging (fMRI). Abutalebi *et al.* (2005) consider that the level of proficiency attained in a language can be more important than the age of L2 acquisition when looking at some aspects of language processing but there can be specific differences linked to the age of onset in others. Franceschini *et al.* (2003) point out that a high proficiency in the L2 can mask the differences with respect to the onset time of acquisition. There is a great diversity and individual differences involved in the acquisition of several languages regarding factors such as time of onset, level of proficiency or language use and it is difficult to isolate their effect. At the same time there are many different dimensions in communicative competence and psycholinguistic tests usually focus on the processing of limited stimuli. Although neuroimaging technologies do throw new light on the age factor issue and many other areas of language acquisition, the diversity and complexity of the processes involved make it necessary to conduct a large number of studies so as to provide evidence that can be generalized.

Research supporting the existence of sensitive periods for second language acquisition has important implications for formal contexts, and

particularly for the early introduction of foreign languages, in the school curriculum. If there are sensitive periods for language acquisition, schools should introduce second and third languages earlier so as to provide optimal conditions for language learning.

The distinction between natural and formal contexts of language acquisition is important and most research supporting sensitive periods has taken place in natural contexts where extensive natural exposure to the language is combined with formal learning. This situation is quite different from acquiring a second or foreign language in situations in which exposure to the language is limited to the school context and usually to a very limited number of hours per week. Learners with a minority language as their L1 are exposed to the majority language from an early age outside school and are in a situation which is closer to that of natural contexts. On the other hand learners with a majority language as their L1 are very often exposed to the minority language at school and may find it more difficult to attain a very high level of proficiency in the minority language. In these situations, the amount of exposure and the type of input are very important.

When discussing different types of immersion programs for language-majority students, Genesee (2004: 557) refers to age differences when comparing early and late immersion. He says that early immersion learners can benefit from natural language learning ability, their open attitudes to new languages and cultures, the opportunity for extended exposure and an optimal fit between learning styles of young learners and effective L2 pedagogy. On the other hand, older students can benefit from a more developed knowledge of the L1, particularly literacy skills, and self-selection because those who opt for later immersion are usually highly motivated. Immersion in Basque for Spanish speaking children in the BAC is, with a few exceptions of late arrivals, early immersion with little variation regarding age so in this chapter we will discuss the age factor as related to the teaching of English at different ages.

Taking into account that research conducted in natural settings has found out that older learners progress faster in the first stages of language acquisition it can also be expected to find advantages on part of older learners in school contexts. If young children have advantages after the first stages, it is possible that these advantages are not clearly seen at school because the number of hours of exposure in primary and secondary school is not high enough to get to a stage in which the advantages can be observed. The initial advantages associated with older learners in natural settings are usually in morphology and syntax, but it can be expected that because learners in foreign language contexts tend to have non-native teachers, younger learners will not present better pronunciation skills than older learners.

Most studies conducted in formal settings confirm the advantages presented by older learners (Singleton & Ryan, 2004; Muñoz, 2006b). The good results obtained by older learners have also been confirmed by Canadian immersion programs. Genesee (1987) and Harley (1986) report that learners who experience intensive exposure to the second language in late immersion in the first year(s) of secondary school present similar levels of proficiency in the second language as children who have experienced more exposure to the second language in early immersion programs.

Early Introduction of English in the Basque Educational System

The increasing role of English in Europe has developed a growing interest in learning English which is reflected in demands for more English instruction and better quality English instruction in schools. One of the consequences of this need to acquire higher levels of proficiency in English is the trend to introduce English in kindergarten or primary school in several European countries (Eurydice, 2008).

Pre-primary education in the BAC is divided into two stages: stage for ages 0–3 and stage for ages 3–6. Between the ages of zero and two some children stay at home and others go to a day care centre. Most of these schools have Basque as the language of instruction and some even introduce a few sessions in English. As we have already said in Chapter 2, school starts very early in the BAC and nowadays most children go to school at the age of 2. The classrooms are equipped for the needs of these children and they have a shorter school day. Basque is the main language of instruction and as we have seen in Chapter 3, Basque is the language of instruction for the whole day (model D) or part of the day (model B) for almost 95% of the children aged two to six. Most schools introduce English at the age of four but some even introduce English earlier.

The early introduction of English in kindergarten was initiated on an experimental basis in several *'ikastolak'* in 1991 (see Artigal, 1993). These model D schools, with Basque as the language of instruction, developed a multilingual project that goes from the age of four to the end of compulsory education, at the age of 16 (see Elorza & Muñoa, 2008). English is taught in kindergarten for approximately two hours a week in four 30-minute sessions but the number of hours of English increases in later years. This early introduction of English has spread to most schools in the BAC.

As we saw in Chapter 5, a few years later the Basque Government Department of Education carried out a project in other schools so as to compare the results of the early introduction of English to more intensive

exposure to English in later years. This comparison was not possible because most schools wanted the early introduction of English rather than having the same number of hours at the end of primary or in secondary. Thirteen public schools started to introduce English at the age of four officially in 1996 but many others also did the same without taking part in the project and without specific counseling and economic support. The Basque Government had to extend the counseling to other schools and in the following years English language teachers from more than 150 schools attended specific workshops for teaching English to younger learners. Teachers met every two weeks with their advisors so as to get materials for use in the classroom and discuss teaching practices (Aliaga, 2002). The methodology was basically content-based. The English language teachers participating in this project only use English in the classroom and all the activities are oral. The methodology used is based on story-telling, songs and other oral activities and requires the children's active participation by means of collective dramatization and playing.

Nowadays, 90% of the schools in the BAC teach English from the age of four although it is not compulsory until the age of six. This very early introduction of English has also taken place in some areas in Spain but it is not as common in other parts of Europe. One of the main reasons for this early introduction of English is the pressure from parents who want their children to learn English and think that an early introduction necessarily results in a higher level of competence. Before the early introduction of English was spread to the whole system, individual schools had an interest in offering something 'special' because they needed to attract students in a context in which the birth rate is very low. Introducing English at an early age has some difficulties but can be easier than using English intensively in later years when academic content is more important. According to a survey carried out by Cenoz and Gallardo (2000) English language teachers thought that the early introduction of English was a good idea because it increases the amount of hours of instruction and because more exposure is very necessary in the case of a foreign language. The questionnaires addressed to parents also indicate that they have very positive attitudes towards early instruction in English in primary schools and kindergarten (Cenoz & Lindsay, 1994).

The early introduction of English has spread all over the BAC but it has also been criticized. It is considered that the increasing role of English in the curriculum could be an obstacle for the revitalization of the Basque language (Etxeberria, 2002, 2004; Ruiz Bikandi, 2002). The hours devoted to English are hours that in many schools were previously taught in Basque. English is considered just as a fashion by some people. Another

criticism is that there are not enough qualified teachers and that the money spent in teacher education and material development could be used for other purposes.

The Development of English Competence at Different Ages

In this section, we will discuss in detail a research project conducted at the University of the Basque Country which aims at analyzing the effect of the age of introduction of English as a third language. Apart from the results on general proficiency (see also Cenoz, 2003d), this section will include some results on specific aspects of language proficiency obtained in the same research project (Garc a Mayo, 2003; Garc a Lecumberri & Gallardo, 2003; Ruiz de Zarobe, 2005; Lasagabaster & Doiz, 2003). The next section will discuss data from the same project on attitudes and motivation.

This longitudinal research project started in 1996 and has been conducted in a specific school in which English is taught as a third language to all the students. Traditionally, the English language was introduced in the 6th year of primary school (11 years old) but when the Spanish Educational Reform was implemented in 1993, foreign languages were introduced in the 3rd year of primary school when children are eight years old (Cenoz & Lindsay, 1994). The school collaborating with this study took part in a specific project to introduce the teaching of English in the second year of kindergarten at the age of four. This program started in 1991. Therefore, this school provides the possibility of comparing groups of children who have started their English classes at three different ages within the same bilingual program and school curriculum. All the children in this research study come from the same geographical area and similar social backgrounds. The subjects included in this research study were selected on the condition that they did not receive instruction and were not exposed to English outside school (private classes, academies, summer courses, etc).

Taking into account that third language acquisition is a very complex phenomenon and that the influence of age can be related to other factors such as the amount of exposure, cognitive development or teaching methodology, the study of the age factor has been approached from different perspectives and covered different areas of proficiency.

Comparisons controlling for age of testing

The first perspective we are going to discuss here compares subjects who are the same age but have experienced different amount of exposure. The research question is the following: *Do learners who are the same age but*

have had different amounts of exposure achieve the same level of proficiency in English? In order to answer this research question we are going to present data corresponding to comparisons made in the 6th year of primary school, in the 4th year of secondary school and in the 6th year of secondary school. These comparisons have been carried out with a specific sample from the project.

All the participants in this research study ($N = 184$) were primary and secondary schoolchildren from a school in Gipuzkoa. This school has Basque as the language of instruction (model D). Spanish and English are taught as school subjects but Basque is the main language of communication at school. Some students used only Basque at home, others only Spanish and others both Basque and Spanish. On a scale of three points (1 = only Spanish; 3 = only Basque) the students in this sample obtained 2.28 points when asked about the language they used with their mothers and 2.22 points for the language used with their fathers. These scores indicate that the use of the Basque language is slightly more common than the use of Spanish at home for the students in our sample. The distribution of male and female is quite balanced: 48.6% male and 51.4% female. The other characteristics of the sample are given in Table 9.1.

The data were collected at four different times between 1997 and 2005. Before the tests were administered all the students in each of the classes in which data were going to be collected completed a short questionnaire so as to know if they had received additional instruction in English or had been exposed to English outside school. Only students who had not received additional instruction in English were included in the sample. The instruments used are given in Table 9.2.

The background questionnaire was designed to obtain information about sociological and sociolinguistic variables. The listening comprehension test consisted of three parts. In the first part, participants listened to a song and had to put some pictures in order. In the second part participants were asked to listen to a passage and identify eight characters and in the

Table 9.1 Characteristics of the sample

| <i>Model</i> | <i>Hours of English</i> | <i>Starting age</i> | <i>Course when data were collected</i> |
|--------------|-------------------------|--|---|
| D | 400–700 | Pre-school (4–5) Primary 3 (8–9) Primary 6 (11–12) | Primary 6 (11–12) Secondary 4 (15–16) Secondary 6 (17–18) |

Table 9.2 Tests of English proficiency

| | <i>Questionnaire/Test</i> |
|---|--|
| Background | Gender, age, socioeducational background, competence in Basque and Spanish, use of Basque and Spanish. |
| Listening comprehension | 3 parts (max 36 points) |
| Reading comprehension/grammar | 3 parts (max 31 points) (different scales) |
| Oral production | Frog story / another story |
| Writing | Composition 250 words (max 100 points) |
| Cloze | 34 blanks (max 34 points) |
| Placement test (in the 6th year of secondary) | Listening (max 100 points) Grammar / voc (max 100 points) |

third part they had to choose an adverb to describe the eating habits of four characters. The maximum score in this test was 36 points. The reading comprehension/grammar test had three parts. In the first part, participants were asked to look at four pictures and to match the different parts of a dialogue. In the second part, participants were asked to fill in some blanks by using the appropriate word (auxiliaries, pronouns, quantifiers, etc.). The third part is similar to the first and participants were asked to put the different parts of a dialog in order. The maximum score of the grammar test was 31 points.

Oral production was measured individually with each of the students. Students were asked to tell two stories: the Frog story and a story they had already worked with in class. The picture story '*Frog, where are you?*' (Mayer, 1969) consists of 24 pictures with no text and the interviewer asks the learner to describe the pictures. It has been used in a large number of contexts all over the world with different languages both with children and adults (Berman & Slobin, 1994; MacWhinney, 2000). Participants were also asked to tell another story that was related to the learners' class activities. This story was different in the different age levels.

In order to measure students' writing ability, participants were asked to write a composition with a maximum length of 250 words. In the composition, students were asked to write a letter to an English family and they had to tell them about their own family, their school and their hobbies (max = 100 points).

The two other tests of English proficiency were more holistic. In the cloze test participants were asked to fill in 34 blanks by using the appropriate

words in a test. The test is the well-known story 'Little Red Riding Hood'. This test measures lexical, grammatical and discursive aspects of language production (max = 34 points). Participants in the 6th year of secondary also completed a standardized placement test, the Oxford Placement Test. This test had listening and grammar/vocabulary sections (max = 100 points for listening and 100 points for grammar/vocabulary).

The stories were recorded, transcribed and analyzed in order to examine different aspects of oral production. First, the number of tokens, types, utterances and words per utterance produced by the three age groups when re-telling the two stories were obtained. Then an overall evaluation of the oral production including pronunciation, vocabulary, grammar, fluency and content was carried out. The composition was graded according to the holistic approach proposed by Jacobs *et al.* (1981). This system uses scales corresponding to content, organization, vocabulary, language use and mechanics. Once the oral tests were fully transcribed, analyses were conducted by using the Childes Clan program to estimate the number of word tokens, word types, utterances and words per utterance. The different measures of proficiency were used to measure different dimensions of oral and written production and also the different linguistic levels: phonetic, lexical, morphosyntactic, pragmatic and discourse.

In order to find out whether there were differences between the different groups several statistical analyses were carried out in the 6th year of primary and the 4th and the 6th years of secondary.

Sixth year of Primary (11–12 years old)

The first analyses include two different groups of learners who were in the 6th year of primary school but had started learning English at different ages: the 2nd year of kindergarten and the 3rd year of primary school. At the time of testing, subjects who had started learning English at the age of four had received approximately 700 hours of instruction and subjects who had started learning English in the 3rd year of primary had received 400 hours of instruction. The results on the different dimensions of oral proficiency are given in Figure 9.1 (max 10).

The results of the T-tests indicate that there are significant differences in two of the measures of oral proficiency: pronunciation ($T = 5.3$, $S = .00$) and vocabulary ($T = 4$, $S = .00$). The scores obtained by the learners who started in the 3rd year of primary (400 hours of exposure) are significantly higher than the scores obtained by the subjects who started in kindergarten (700 hours of exposure) in these two measures. There are no significant differences between the two groups in grammar, fluency and content.

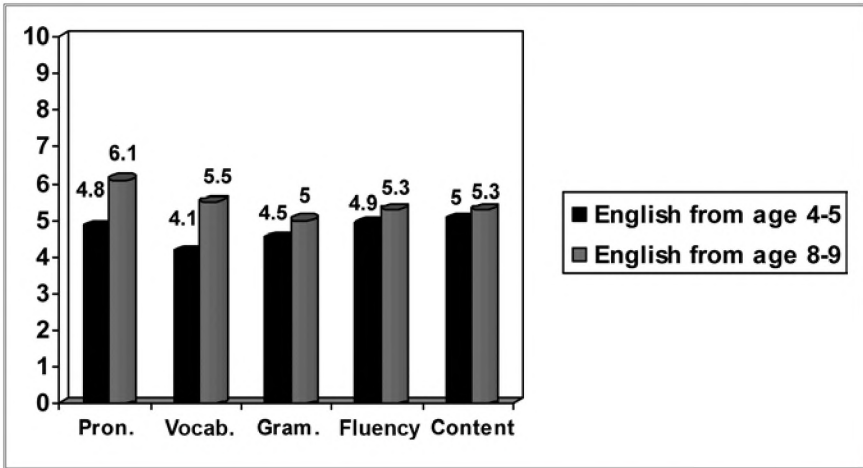


Figure 9.1 Oral proficiency in the 6th year of primary (age 12)¹

Table 9.3 The Frog story and the second story in the 6th year of primary (11–12 years old)

| | <i>Starting in kindergarten (4–5 years old)</i> | | <i>Starting in primary 3 (8–9 years old)</i> | |
|-----------------|---|---------------------|--|---------------------|
| | <i>Frog</i> | <i>Second story</i> | <i>Frog</i> | <i>Second story</i> |
| Tokens | 260.4 | 388.1 | 179.4 | 129.3 |
| Types | 74.9 | 127.4 | 52.9 | 45.4 |
| Utterances | 33.7 | 49.7 | 26.2 | 18.2 |
| Words/utterance | 7.9 | 7.2 | 6.7 | 6.9 |

The scores in Table 9.3 correspond to the mean number of tokens, types, utterances and words per utterance obtained by the same groups in the Frog story and the story related to the classroom activities.

The results of the T-tests indicate that there are significant differences in the four measures in the case of the Frog story: tokens ($T = -4.5$, $S = .00$), types ($T = -4.6$, $S = .00$), utterances ($T = -3.3$, $S = .00$) and words per utterance ($T = -3.2$, $S = .00$). The subjects who had started in kindergarten (700 hours of exposure) obtained significantly higher scores in these four measures than learners who had started in the 3rd year of primary (400 hours of exposure). When comparing the stories students had practiced in

class the results of the T-tests indicate that the differences between the means obtained by the two groups are significant in three of the four measures: tokens ($T = -10.2$; $S = .00$), types ($T = -12.9$; $S = .00$) and utterances ($T = -12.1$; $S = .00$). Learners who started in kindergarten obtained significantly higher scores than learners who started in the 3rd year of primary in the three measures. There were no significant differences between the two groups in the number of words per utterance. So in all these measures of oral production and for both stories the early starters were better than the late starters. However, learners who started in primary 3 obtained significantly higher results than learners who started in kindergarten in one of the written tests, the cloze test ($T = 3.1$, $S = .00$).

Fourth year of Secondary (15–16 years old)

The second comparison was carried out in the 4th year of secondary. In this case we have data from three groups of learners. They were all in the 4th year of secondary school but had started learning English at different ages: kindergarten, 3rd year of primary school and 6th year of primary school. At the time of testing subjects who had started in kindergarten had received approximately 1100 hours of exposure, those who started in the 3rd year of primary approximately 800 hours of exposure and subjects who started in the 6th year of primary had received 500 hours of exposure. The results of the analyses of variance for oral proficiency in the Frog story are given in Figure 9.2 (max = 10).

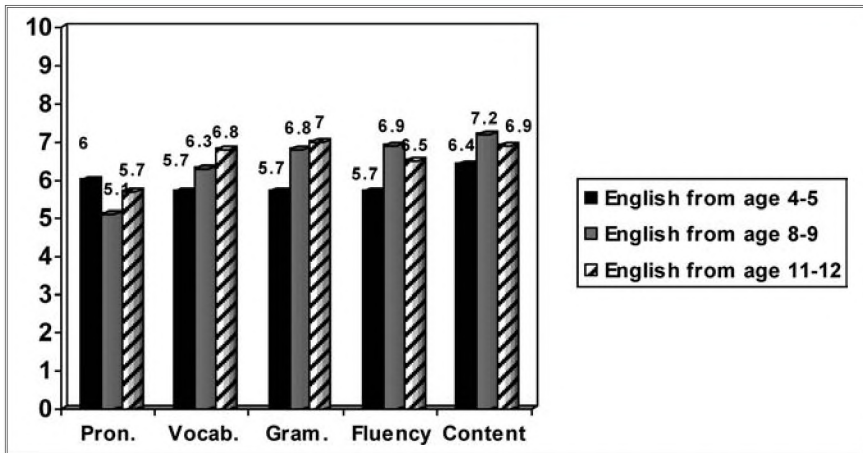


Figure 9.2 Oral proficiency in the 4th year of secondary (15–16 years old)

The results indicate that there were significant differences in all the dimensions of oral proficiency except in content but the results do not always go in the same direction. The students who had started to learn English late, in the 6th year of primary school obtained the best scores in vocabulary ($F = 3.91$; $S = .02$) and grammar ($F = 8.37$; $S = .00$) and the differences were significant when compared to the ones who started in kindergarten but not when compared to the subjects who started in the 3rd year of primary. The group who started in kindergarten obtained the highest scores in pronunciation ($F = 4.31$; $S = .01$) and the differences were significant as compared to the group who had started in the 3rd year of primary but not when compared to the group who started in the 6th year of primary. The intermediate group, those who started in the 3rd of primary obtained the best scores in fluency ($F = 4.31$; $S = .01$) and these scores were significantly higher than the ones of the group who had started learning English in kindergarten.

The results corresponding to the same three groups in tokens, types, utterances and words per utterance in the Frog story and the results of the Oxford Placement test are given in Table 9.4.

Regarding the Frog story, the results indicated that there were no significant differences between the groups. The results of the Oxford Placement Test indicate that there were no significant differences in the case of listening comprehension but the results of the students who started in the 6th year of primary were significantly higher than those of the other two groups in the vocabulary and grammar test ($F = 15.35$; $S = .00$).

Table 9.4 The Frog story and the Oxford Placement Test in the 4th year of secondary

| | <i>Starting in kindergarten</i> | <i>Starting in 3rd primary</i> | <i>6th primary</i> |
|----------------------------------|---------------------------------|--------------------------------|--------------------|
| <i>The Frog story</i> | | | |
| Tokens | 264.35 | 306.50 | 276.73 |
| Types | 89.53 | 95.22 | 86.86 |
| Utterances | 31.82 | 37.89 | 33.68 |
| Words per utterance | 8.73 | 8.28 | 8.21 |
| <i>Oxford Placement Test</i> | | | |
| Listening (max = 100) | 62.65 | 61.11 | 63.44 |
| Vocabulary / grammar (max = 100) | 52.82 | 37.44 | 56.56 |

Sixth year of Secondary (17–18 years old)

More comparisons were carried out at the end of secondary school. In this case we have data from two groups, those who started in the 3rd year of primary (1000 hours of instruction) and in the 6th year of primary (700 hours of instruction). The results of the comparisons on oral production can be seen in Figure 9.3 (max = 10).

The results indicate that there are no significant differences and that the differences in four of the five dimensions are only marginally significant. In these cases, students who started in the 6th year of primary obtained higher results in vocabulary ($T = -1.78$; $S = .08$), grammar ($T = -1.87$; $S = .06$) and fluency ($T = -1.83$; $S = .07$) and students who started in primary 3 in pronunciation ($T = 1.86$; $S = .06$).

The results corresponding to the same two groups in tokens, types, utterances and words per utterance in the Frog story and the results of the Oxford Placement test are given in Table 9.5.

In the case of the Frog story the differences are significant for three of the measures: tokens ($T = 2.15$; $S = .03$), types ($T = 4.39$; $S = .00$) and utterances ($T = 4.18$; $S = .00$). Subjects who started in the 3rd year of primary obtained better results than those who started in the 6th year of primary. In the case of number of words per utterance the differences are only marginally significant and the subjects who started later obtained better results

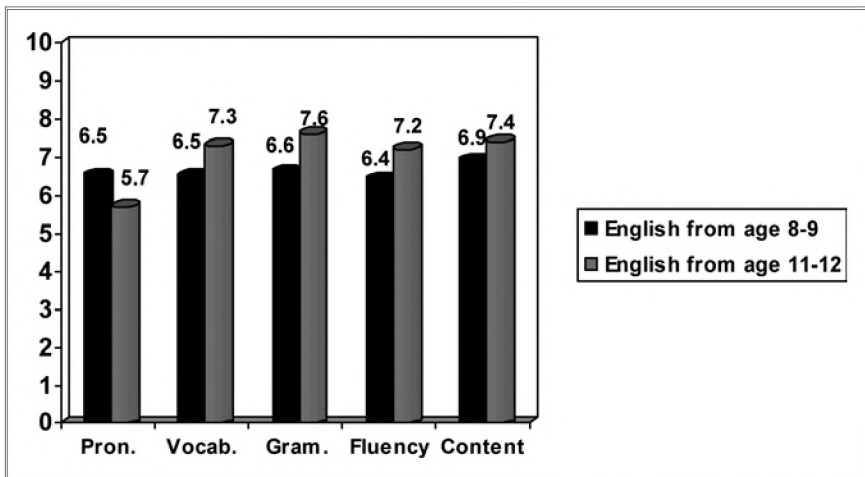


Figure 9.3 Oral proficiency in the 6th year of secondary (17–18 years old)

Table 9.5 The Frog story and the Oxford Placement Test in the 6th year of secondary (17–18 years old)

| | <i>English from 3rd primary (age 8–9)</i> | <i>English from 6th primary (ages 11–12)</i> |
|----------------------------------|---|--|
| <i>The Frog story</i> | | |
| Tokens | 368.72 | 296.47 |
| Types | 114.39 | 85.88 |
| Utterances | 46.17 | 32.82 |
| Words/utterance | 7.94 | 8.99 |
| <i>Oxford Placement Test</i> | | |
| Listening (max = 100) | 65.67 | 67.79 |
| Vocabulary / Grammar (max = 100) | 59.28 | 53.12 |

($T = -1.81$; $S = .07$). The results of the Oxford Placement Test indicate that there were no differences in listening comprehension and that learners who started in the 3rd year of primary obtained better results in vocabulary and grammar ($T = 1.96$; $S = .05$).

The analyses shown compare the results of English tests of students with a different number of hours of instruction that were in the same course. As we have seen in the different tables, the results are quite mixed. Table 9.6 provides a summary:

Table 9.6 Summary of the comparisons

| <i>Level</i> | <i>Groups/hours</i> | <i>Results</i> | <i>Measurement</i> |
|---------------------------------|--|----------------|---|
| 6th primary (11–12 years old) | E 700 hours I 400 hours | I > E | Pronunciation, vocabulary (oral) |
| | | E > I | Tokens, types, utterances in both oral stories, words per utterance in Frog, cloze test |
| 4th secondary (15–16 years old) | E 1100 hours I 800 hours L 500 hours | E best | Pronunciation (oral) |
| | | I best | Fluency (oral) |
| | | L best | Vocabulary and grammar (oral and placement) |
| 6th secondary (17–18 years old) | I 1000 hours L 700 hours | I > L | Tokens, types, utterances (Frog) and vocabulary and grammar (placement test) |

E = early starters, age 4–5; I = intermediate, age 8–9; L = late starters, age 11–12.

These findings do not show a clear positive effect of the early introduction of English. There is no clear pattern showing advantages on part of the learners who have received more hours of instruction. The early starters (from age 4–5) only obtained significantly higher results in vocabulary in the 6th year of primary and in pronunciation in the 6th year of primary and the 4th year of secondary. The late starters obtained better results in vocabulary and grammar both in the oral test and the placement test but the ‘intermediate’ group got the best results in the placement test in the 6th year of secondary. Some of these results may reflect the different methodological approach that highlights oral proficiency in the case of the early starters as compared to the other two groups. The results of the analyses indicate that learners who started later (either in the 3rd year of primary or the 6th year of primary) obtained better results in vocabulary and grammar than learners who started learning English in kindergarten. The differences between starting in the 3rd year of primary and the 6th year of primary are not that clear in the last year of secondary school. Learners who started in kindergarten seem to do quite well in oral skills but the number of hours of exposure is much higher than for other learners. The general conclusion is that learners are better at the skills they have practiced more in class and that the differences between the 3rd and the 6th level are not clear by the end of secondary school. It will be interesting to see how far learners who started in kindergarten get when they finished secondary school.

In a comparison of writing skills of a group of ‘intermediate’ starters with a late starters group reported by Doiz and Lasagabaster (2004) some mixed results were also found in the 4th year of secondary education. In general terms, the intermediate group obtained better results in holistic measures of writing (organization, vocabulary and language use), in the total number of words and sentences and in the use of different types of verb tenses. The late starters group obtained significantly better results in the total number of non-finite verbs and also made fewer errors.

Ruiz de Zarobe (2006) compared early starters and intermediate in the 6th year of primary after approximately 700 hours and 400 hours of English. She focused on the use of the negative in oral production by analyzing the Frog story. She found that in general terms the acquisition of the negative was for both groups at a very early stage and that there were no significant differences between the two groups.

Eiguren (2006) carried out a study in a different school which also focused on the comparison of learners who were in the same grade but had started learning English at different ages. Participants were 86 students with a mean age of 9.27 who had Basque as the language of instruction (model D) in three different schools in Gipuzkoa where Basque was

spoken by 36–39% of the population. Egiguren conducted her study in the 4th year of primary and selected students who had no contact with English outside school. Forty-one students (47.7%) had studied English from the second year of kindergarten (four years old) and were in their 6th year of English and 46 (52.3%) had started learning English in the 3rd year of primary (eight years old), that is one year before the data were collected. The early starters had three hours of English per week while the late starters had four hours: two English classes, and two art classes taught through the medium of English.

Egiguren tested listening, reading and writing skills in Basque, Spanish and English. The Basque and Spanish tests (Galbahe E2 and C2) were standardized and used in the EIFE studies (Sierra & Olaziregi, 1989, 1991). The English tests were based on materials used in class. The reading and vocabulary test of English had several parts where students were asked to match pictures and sentences, choose the correct answer or fill in the blanks. The listening tests had three parts and students had to listen to a tape and complete some tasks. In the oral production test children were asked to tell *'The three little pigs story'*. The dimensions of oral production evaluated were pronunciation, vocabulary, grammar accuracy, fluency and content. Other variables measured were age in which participants started learning the foreign language, gender, intelligence, socioeconomic status, attitudes and use of Basque and Spanish.

Egiguren (2006) analyzed whether more hours of instruction in English corresponded to a higher level of competence. The results of this comparison are shown in Table 9.7.

The differences between the two groups were not significant for any of the four areas measured: vocabulary ($T = -1.12$; $S = .26$), reading ($T = 1.21$; $S = .22$), listening ($T = 1.39$; $S = .16$) and speaking ($T = .99$; $S = .32$).

Another comparison of results was carried out by Ikastolen Elkartea, the network of ikastolak that had first introduced English from the age of

Table 9.7 Comparison of early and late starters in the 4th year of Primary

| | <i>English from kindergarten (age 4–5)</i> | <i>English from 3rd year of primary (age 8–9)</i> |
|------------------------|--|---|
| Vocabulary (max = 408) | 352.2 | 367.48 |
| Reading (max = 144) | 88.15 | 80.55 |
| Listening (max = 18) | 16.50 | 15.73 |
| Speaking (max = 50) | 29.61 | 27.75 |

Table 9.8 Comparison of early and later starters in the 2nd year of secondary (13–14 years old) (Garagorri, 2002)

| | <i>English from the kindergarten (age 4–5)</i> | <i>English from 3rd primary (ages 8–9)</i> |
|----------------|--|--|
| Writing | 8.93 | 5.62 |
| Reading | 8.62 | 6.90 |
| Listening | 15.76 | 11.90 |
| Grammar test 1 | 9.47 | 7.10 |
| Grammar test 2 | 4.47 | 2.37 |
| Speaking | 13.10 | 9.48 |

four in 1991 and coordinated the project of the early introduction of English in the ikastolak. The comparison was made when the students were in the second year of secondary school (Garagorri, 2002). The tests taken included writing, reading, listening, speaking and two tests of grammar. The means for the two groups can be seen in table 9.8.

Garagorri (2002) does not refer to statistical differences but students who had started learning English from the age of four obtained higher scores in all the tests. These results are remarkable as compared to the mixed results obtained in other comparisons. One possible explanation is the type of test used that could be closer to the methodology used with younger children while the more external comparisons used standardized tests.

Comparisons controlling for number of hours of instruction

The comparisons reported so far look at different aspects of proficiency by students who are the same age but have received different amounts of instruction and started learning English at different ages. The advantage of making this type of comparison is that learners are at the same stage of cognitive development at the time of testing. Another possibility is to control for the number of hours of exposure and to compare the rate of acquisition at different ages. These comparisons have also been made and the results are given in Table 9.9.

The results controlling for the amount of instruction and comparing students who are not the same age clearly indicate that older learners

Table 9.9 Studies comparing the number of hours of exposure

| | <i>Area</i> | <i>Results</i> |
|---|--|--|
| Cenoz, 2003d | <i>General proficiency:</i> oral proficiency, writing, listening, cloze, reading | E, I, L: After 600–700 hours Late starters significantly better in most measurements |
| Garc a Lecumberri & Gallardo, 2003, 2006 | <i>Pronunciation:</i> vowels, consonants, foreign accent, intelligibility | E, I, L: After 600 hours Late starters significantly better in most tests, less differences between E and I. |
| Garc a Mayo, 2003 | Grammaticality judgement task to test Pro-drop parameter | E, I, L: After 400 hours Late starters better in identifying sentences with missing subjects and subject-verb inversion but not in the 'that' trace |
| Ruiz de Zarobe, 2005 | Subject pronoun omissions, number of words, utterances, language use in oral and written production | E, I, L: After 400 to 800 hours E produce more subjectless sentences and obtain lower results in other measures. In the third measurement I obtained better results than L in some measures but also had about 100 hours more of instruction (800 vs 700). |
| Lasagabaster & Doiz, 2003 | <i>Writing skills:</i> holistic, fluency, complexity, accuracy, errors | E, I, L: After 700–800 hours L best scores in holistic scores and most measures of fluency, complexity, accuracy and the E the lowest. Mixed results in errors. |
| Garc a Mayo <i>et al.</i> , 2005 | Insertion of placeholder 'is' and 'he' before lexical verbs | E, I, L: After 400 hours E use placeholder 'is' more often and I use placeholder 'he'. |
| Perales, 2004 | Negative utterances | E, I, L: 300 to 800 hours The L the best scores, the I is that one that improves more between the two times of measurement |

E = early starters, English from age 4–5; I = intermediate, English from age 8–9; L = late starters, English from age 11–12.

progress faster. Some possible explanations for these results are related to cognitive maturity and type of input. Cognitive maturity could explain the higher linguistic development of the secondary school-children as well as their higher scores in content and could also be linked

to higher developed test-taking strategies. Another possible explanation of the results is linked to the type of input. The oral-based approach used with younger students could explain the fact that there are fewer differences when the groups are compared in pronunciation, tokens or utterances. The more traditional approaches used with older learners could explain the higher lexical and syntactic complexity of their production and their higher scores on the written tests (composition, cloze test, reading, grammar test). In sum, older learners seem to progress faster than younger learners or at least are able to show their progress in the tests better than younger learners when the amount of instruction is controlled. The differences are more important in those measures related to higher metalinguistic ability than in the quantitative measures of oral production or pronunciation and they could be related to cognitive development and input.

The results of these studies coincide with those obtain in a project on the age factor in a study conducted in Barcelona (Muñoz, 2006a). The Barcelona study has a larger sample and two age groups, those that have been called intermediate starters (starting at age 8–9) and the late starters (starting at 11–12). Late starters obtained significantly higher results in academically oriented tests when the time of exposure was controlled. No differences were found between the two groups in the case of listening comprehension and aural recognition. Muñoz (2006b) provides comparison at three different times, after 200, 416 and 726 hours of instruction. The results indicate that in general the late starters obtain better results than the ‘intermediate’ starters.

What do these results tell us? Is the early introduction of English worth it? The results of these analyses reflect the complexity of measuring the age factor in this context (see also Muñoz, 2008a). When we compare children who are in the same grade we no longer have the problem of comparing different ages and different levels of cognitive development or test taking strategies but other methodological problems are still there. The type of input and instruction that learners have experienced is clearly different for two reasons. In recent years there has been an emphasis on the development of communicative skills and teachers have tried to focus much more on oral skills rather than written language and grammar rules. There has been a change in the whole methodological approach. Learners who started learning English at the age of 11–12 studied grammar rules and vocabulary and applied them by doing exercises while young learners do oral activities. Furthermore, the difference in the type of instruction between older and younger learners does not depend only on the general change of methodological approach but on the stage of development of the children. When

English is introduced at the age of four children have not acquired literacy skills yet and they have not reached the stage in which they can reflect about the metalinguistic aspects of language. They cannot possibly receive instruction based on grammar rules and vocabulary.

Attitudes and the Age Factor

Language planners, advisors and teachers think that children are very happy in the English classes and that the early introduction of English can have a positive effect on attitudes (Cenoz & Gallardo, 2000). Some studies conducted in other contexts have associated the early introduction of foreign languages with more positive attitudes and motivation (Hawkins, 1996; Burstall, 1975) but in others no differences have been observed (Tragant & Muñoz, 2000).

Studies on the effect of age conducted in bilingual settings have reported that attitudes towards the minority language become less favorable when age goes up (see Baker, 1992 for a review). For example, Baker (1992) found that attitudes towards Welsh became less favorable between 11 and 14 years of age and the most significant change took place between 13 and 14 years of age. This trend has also been observed by Nikolov (1999) in the case of learning English as a foreign language in Hungary.

Among the different possibilities of looking at the relationship between attitudes and age in the Basque context, the specific question that we are going to discuss in this section is the following: *Do learners who are the same age but have had different amount of exposure present similar attitudes towards English?* In order to answer this question we compared the means obtained by learners who were in the same course but have started to learn English at different ages. The data available correspond to the 4th (15–16 years old) and the 6th (17–18 years old) of secondary (max = 56). The results can be seen in Figure 9.4.

The results of the analysis of variance indicate that there are no significant differences in attitudes towards the English language in the 4th year of secondary (15–16 years old). The results of the T-tests indicate that in the 6th year of secondary (17–18 years old) the differences between the means are only marginally significant ($T = 1.73$, $S = .09$). It seems that more exposure to English does not necessarily result in better attitudes. In some cases, it could even happen that more exposure to the language has a negative effect unless learners achieve a basic command of English, that is, learners may get bored and tired of English classes because their proficiency is still very limited. It could also be that early starters (and even intermediate ones) had a very communicative approach based on story

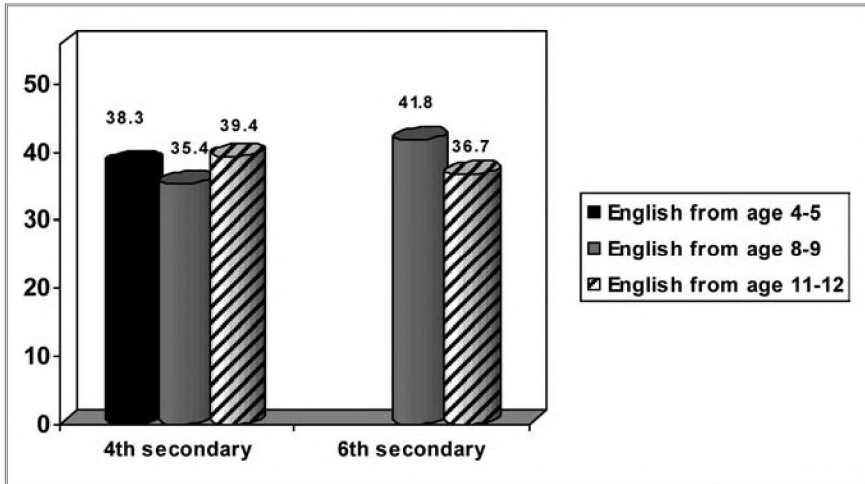


Figure 9.4 Attitudes towards English in the 4th year and the 6th year of secondary school

telling and projects in the first years and there is a contrast with a more grammar-based approach in later grades.

Egiguren (2006) also reported that there were no significant differences between early and intermediate starters in attitudes in the 4th year of primary school.

The results of the comparisons between learners of different ages who had received the same number of hours of exposure indicates that early starters present significantly more positive attitudes than older learners after 600 and 700 hours of instruction (see Cenoz, 2004). The most positive results correspond to the early starters who were younger than the other groups at the time of testing. Therefore, our results support the trend for younger learners to present more positive attitudes than older learners but this trend is not necessarily maintained in the long run.

The Influence of the Early Introduction of English on Basque and Spanish

As we have already seen in this chapter, one of the main worries related to the early introduction of English has been its influence on the development of Basque and Spanish. The main questions related to this issue are the following: Is the early introduction of English going to affect the development of the other two languages? Is the minority language going to

suffer? Will three languages be too many? The number of research studies in this area is very limited and the spread of the early introduction of English practically to all children makes the comparison impossible in the future.

Cenoz *et al.* (1994) analyzed the linguistic competence in Basque and Spanish of 6–7 year old children who had started learning English at the age of four in the experimental group and had not been learning English in the control group. Children in the experimental group were in their third year of English. They measured listening comprehension and production in Basque and Spanish. They found no differences in Spanish but they found that children learning English were better in production in Basque.

In a follow-up of this study, Garagorri (2002) confirmed that there were no differences in Basque and Spanish related to the early introduction of English. He compared 195 students who started learning English at the age of four with 154 who started at the age of eight. Apart from the results in English that we have already referred to, the tests included reading comprehension in Basque and Spanish and a general intelligence test. The results indicate that there were no differences between the two groups of students. This means that the early introduction of English does not hinder the development of Basque and Spanish or cognitive ability.

Egiguren (2006) also looked at the possible influence of the early introduction of English on Basque and Spanish. She compared the competence in Basque and Spanish of students who had started to learn English at different ages as it can be seen in Table 9.10.

Table 9.10 Proficiency in Basque and Spanish in the 4th year of primary (15–16 years old)

| | <i>English from kindergarten (4–5 years old)</i> | <i>English from 3rd primary (8–9 years old)</i> |
|----------------------|--|---|
| <i>Basque</i> | | |
| Listening (max = 20) | 17.48 | 17.68 |
| Reading (max = 20) | 15.33 | 15.30 |
| Writing (max = 100) | 77.97 | 72.23 |
| <i>Spanish</i> | | |
| Listening (max = 20) | 15.37 | 14.78 |
| Reading (max = 20) | 12.20 | 12.42 |
| Writing (max = 100) | 74.20 | 67.82 |

The only significant differences were found in writing skills both in the case of Basque ($T = 2.30$; $S = .02$) and Spanish ($T = 2.48$; $S = .01$). In both cases, learners who had started learning English at the age of four obtained significantly higher results.

These results are in agreement with those reported by Garagorri (2002) and by Goikoetxea (2007) and indicate that the early introduction of English does not have a negative effect on the development of the other two languages. The results are consistent with the proposal for interaction between languages in multilingual speakers made by some researchers and the results of other research studies (Kecskes & Papp, 2000; Cook et al. 2003; Jessner, 2006).

Conclusion

The early introduction of English as a third language is a relatively new phenomenon that has received a lot of attention in the last years in Basque education. In fact, the third language is introduced from a much earlier age in the Basque Country than in many other countries. One of the main worries parents and teachers had was that Basque and Spanish could be negatively affected by the early introduction of English. The results reported in this chapter indicate that the early introduction of English does not prevent the development of Basque and Spanish.

As we have seen in this chapter research studies have focused mainly on the development of linguistic proficiency in English by comparing students who are in the same grade but have started learning English at different ages or students who are in different grades but have received the same amount of exposure. In general terms, results are quite mixed. Early starters have some advantages in some areas only when they have received more hours of instruction than late starters and testing is carried out in the same grade. More exposure to the language can contribute to a higher level of proficiency but the results do not prove that this exposure has to take place from an earlier age rather than in a more intensive way in later grades (see Muñoz, 2006b, 2008b). The combination of an early start with a more intensive exposure by having English as an additional language of instruction will probably result in a higher level of proficiency. As we have seen in the *Continua of Multilingual Education*, the sociolinguistic context also plays a very important role and more or less intensive exposure will be needed depending on the use of the target language outside the school.

Research conducted so far has been useful to see the effect of the early introduction of English but more research is needed to get to know the way English, Basque, Spanish and other languages are used in the classroom,

both in teacher-student interaction and student-student interaction at different ages. The research on the age factor reported in this chapter does not provide direct evidence for or against the existence of sensitive periods discussed earlier (Long, 2005; De Keyser, 2000, 2006, etc) because it does not measure final attainment in the target language when there is 'massive' exposure to the language. Exposure in the research studies reported in this chapter is minimal and limited to the classroom. In the case of Basque as a second language in the models B and D there is more exposure to the target language although in many cases it is limited to the school. However, as immersion in the models B and D is always early immersion in the BAC there is no possibility of comparing different times of onset for learning Basque.

Key Points

- The early introduction of second and additional languages in the school curriculum is becoming very popular in many parts of the world but it can be very limited when there is no additional exposure to the target language outside the classroom.
- When analyzing the influence of age on the acquisition of a second or additional language, there are important differences between natural and formal contexts.
- Studies in the BAC do not confirm in a consistent way that the early introduction of English with very limited exposure is the most efficient way to learn English.
- The early introduction of English has no negative effects on Basque and Spanish.

Note

1. When children in the BAC are assigned to different grades according to the age, it is done according to the natural year (January to December), that is, all children born in the same year are in the same grade. In this chapter we give the ages the children along the academic year, for example 4–5 for kindergarten but the actual age of onset for English is four years because school starts in September.