# A SOCIOLINGUISTIC PERSPECTIVE ON LANGUAGE COMPETENCY OF CHINESE CHILDREN IN SPAIN 

Una perspectiva sociolingüística sobre la competencia lingüística de los niños chinos en España

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## KEYWORDS

Acquisition
Teaching
Second language
Chinese
Spanish


#### Abstract

As second generation immigrants, children of Chinese origin in Spain confront a complicated linguistic setting. The objective of this comparative sociolinguistic research, with the participation of 160 children of Chinese origin, is to analyze their sociolinguistic situation in Malaga (Spain), including both external and internal factors (i.e., socio-economic status, education level, language attitudes, identity, motivations, etc.) that affect their linguistic competency and learning. Our methodology is based on quantitative and qualitative data from questionnaires, observations, tests and interviews to explain the linguistic patterns of immigrant children. Tests were completed also by 40 Spanish children and by 40 native Chinese children.


## PALABRAS CLAVE

## Adquisición

Enseñanza
Segunda lengua
Chino
Español

## RESUMEN

Como inmigrantes de segunda generación, los niños de origen chino en España se enfrentan a un contexto lingüístico complejo. El objetivo de esta investigación comparada, en la que han intervenido 160 niños de origen chino, es analizar su entorno sociolingüístico en Málaga, teniendo en cuenta factores tanto externos como internos (nivel socio-económico y educativo familiar, identidad, comportamientos lingüísticos, motivaciones, etc.) que influyan en su competencia de las lenguas. Hemos extraído de observaciones, tests, cuestionarios y entrevistas tanto datos cuantitativos como cualitativos para averiguar el patrón de conducta lingüística de estos niños. También se realizaron tests a niños chinos y españoles.

## 1. Introduction

The linguistic situation of bilingual children has been an important topic in sociolinguistic research. For most bilingual children, the acquisition of language does not only mean the development of linguistic proficiency, but also an aspect of their identity with regard to culture and social position (Ochs, 1993, p. 287). In this research, the subjects of our study are children of Chinese origin born in Malaga. We will focus on investigating their linguistic ability and the internal and external factors that affect acquisition of their language, including family and social environment, linguistic attitude, motivation, etc.

China, the country with the world's largest population, had about 10,800,000 migrants during 2022 (World Migration Report, 2022, p. 25). In recent decades, Spain has been a country characterized by immigration, especially since 1997, when it recorded unprecedented growth. In 2021, the population of Chinese immigrants with legal registration increased to 230,054 (Romero, 2021). This Chinese population is widely distributed throughout the country and can be found in almost all cities, large and small. Although the Chinese community has a long history of settlement in Spain, the Spaniards still consider it a closed and mysterious community.

Compared to other European countries, Spain does not have a great history of Chinese immigration. The first Chinese immigration into Europe is related to the importation of labour during World War II. The Asia-Pacific Framework Plan 2 was developed by the Spanish government, with which economic and trade cooperation with China developed rapidly. However, while the economic state of Chinese immigrants has been heavily investigated, language studies are scarce.

With the recent increase in the number of Chinese immigrants in Spain, their children's education has become a significant problem for Spanish society. Some research found that children of Chinese origin in Spain had many difficulties acquiring Spanish, which severely affected their school performance (Díaz-Aguado, 2005; Pérez, 2009). These studies noted that, compared to Africans and Arabs, Chinese immigrant children had more difficulties learning Spanish and scored lower in their academic performance. In addition, the low level of Spanish learning among Chinese immigrant children is related to the great difference between the two languages: Chinese and Spanish (Shum et al., 2013, p. 68).

Some linguistic research on Chinese immigrants in Spain refers to the teaching of languages or the comparison between the two languages. The most relevant studies are by Morales (2009), Tapia (2011) and Márquez (2014). Chinese students are one of the most representative groups in the international education market, both now and in the future. Their cultural environment and ways of learning are little known to most teachers in other countries (Cortazzi and Jin, 2006, p. 5). Tapia (2011) considers that, within the aforementioned process, the study of lexicon plays a fundamental role. The Chinese student often faces this learning process by making lists of decontextualised lexical units that, in many cases, do not represent the most appropriate procedure.

Although there has been some research on Spanish learning among Chinese children in Spain, not enough studies have been conducted yet linking their way of life in Spain to language learning. In our research the concept of "children of Chinese origin" refers to children who were born in Spain and whose parents are immigrants from China; that is, the expression encompasses the second generation of Chinese immigrants in Spain. We should know that second-generation language studies are of great importance, as children of Chinese origin make up a group that elaborates a different use of language than their parents or that of their Spanish peers.

In general, the development of bilingualism in these children is unbalanced. Some researchers believe that children who only learn one language have better outcomes than children who learn more than one language, as an education with many languages can increase children's stress, which can be a limitation in learning their mother tongue. We call this view subtractive bilingualism (Cummins, 1994). According to this theory, it is considered that, for bilingual children, learning more than one language can over-occupy their minds, making it more difficult for them to learn both languages well.

By contrast, there is a view that bilingualism contributes to the development of children's intelligence. It is considered that, compared to monolingual children, bilingual children are better able to learn their mother tongue and have a greater ability to acquire knowledge. We call this opinion additive bilingualism. Cummins (2000) believes that students who have grown up in an additive bilingual environment tend to be more successful at work than monolinguals.

Based on the previous studies, we will attempt to ascertain the real linguistic capacity of Children of Chinese Origin (CCO) in Spain. The assumptions underlying this study relate to the language proficiency of children of Chinese origin. With this in mind, the linguistic research of children of Chinese origin in Spain is obviously of great need. A future project could provide further study on the globalisation of languages and sociolinguistic research in Spain and China. As the study of the language of children of Chinese origin in Spain also reflects different cultures, Spanish and Chinese, the change of language and culture in both countries could likewise be illustrated.

## 2. Objectives

As previously mentioned, the purpose of this work is to determine the linguistic situation of children of Chinese origin in Malaga. The linguistic variation used by Chinese immigrants is identified with an ethnolinguistic group
in the sense that they form a large colony. It is a reality that the language used in public contexts is Spanish, while Chinese is used at home, with relatives or in the Chinese community. What is truly interesting is that the languages used by Chinese children always mix some characteristics of Chinese and Spanish, specifically the Andalusian variant, which makes the language of immigrant children more complex.

The sociolinguistic perspective is essential in order to explain the languages of immigrant children. This work focuses on research into the linguistic proficiency and the language use by children of Chinese origin, including an analysis of the factors influencing their language learning, factors that can be both external and internal (e.g. attitude, identity or family economy). The integrity of the study is based on data drawn from questionnaires, observations, tests and interviews, as the research seeks to explain the pattern of linguistic behaviour of immigrant children with highly reliable quantitative and qualitative data. This study thus aims to answer the following research questions:

1) In what order do CCOs acquire Mandarin, Spanish and the Chinese dialect?
2) Do CCOs have less proficiency than monolingual children in both Spanish and Chinese?
3) What is the language proficiency of children like in each language?
4) Which is the use of languages in CCOs?
5) In a heterogeneous group, which language will children of Chinese origin choose in different situations?
6) What external and internal factors affect learning, language proficiency and linguistic attitude?
7) What are their linguistic attitudes to the two languages?
8) What is the children's motivation for learning the languages?
9) What are their difficulties in learning Spanish and Chinese?

## 3. Theoretical framework

As it is well known, migration movements are the most important reason for language changes. When different languages come into contact, their cultures begin to have an impact on the inhabitants. Therefore, languages and migration are implicitly linked. In order to make a broader study on the language of immigrants' children, sociolinguistic theories on language contact will serve as the basis for this research, providing a systematic methodology.

### 3.1. Languages in contact

Contact between languages causes each one to influence one another. This influence usually takes place when languages are spoken in the same region and when there is a high degree of communication between people who speak both languages. With the increase in contact between two languages, the phenomenon of linguistic substitution occurs more frequently. Usually, after a period of time, the psychological state of the immigrant changes, as he or she goes from being considered as a guest to being integrated by the native culture. Although immigrants regard themselves as guests, their language and culture begin to enter and settle into the native culture. This situation will inevitably take place in some small communities, even if they are relatively isolated.

Most Chinese immigrants in Spain are involved in the retail sale of goods; apart from customers, they haven't got much contact with native Spaniards. They prefer to interact with other Chinese peers. At first, when talking to their peers, Chinese immigrants usually only use a few Spanish words (such as party "fiesta", ham "jamón", mayonnaise "mayonesa", tapa or Euromillón), as these concepts do not exist in Chinese. With increased contact between languages, the use of specific Spanish vocabulary gradually expands in its daily use. For example, Chinese immigrants have become accustomed to saying boss "jefe" instead of laoban, taxi instead of dishi and colleague "compañero" rather than huoban. Obviously, the basic vocabulary of everyday life in their Chinese mother tongue is replaced by the local Spanish language. The most frequent words in their daily basic vocabulary show that their Spanish has not remained in a word loan, but has moved on to a new stage of linguistic assimilation.

The loan and word substitution take place in the initial period of language contact. If it continues to develop, it could lead to bilingualism. Bilingualism is a linguistic phenomenon in which there are two or more languages used in a community. In this society people need more than one language to communicate with each other, but each has its own social function, although this phenomenon only occurs when these two languages are very different. It has been shown that, unlike the first generation, children of Chinese origin use at least two linguistic varieties (Mandarin Chinese and Spanish) daily, being bilingual.

### 3.2. Linguistic input and output

The role of input and output has been gradually recognised in learning a language. Krashen (1985) was the linguist who raised the theory of Input Hypothesis in the early 1980s, which claimed that language is achieved by understanding information, that is, by receiving comprehensible information. According to Krashen, input should be slightly above the student's proficiency level, which he represents with the formula " $\mathrm{I}+1$ " ( $\mathrm{I}=$ input). Thus, if the student receives comprehensible information, linguistic capacity will be acquired naturally. In addition,

Krashen argues that students should not be required to produce language, as this would cause a great deal of anxiety and prevent them from acquiring the language naturally (1985, p. 16).

An input source would come from active communication, and the amount of input from children is estimated by the number of conversations they have with their families, neighbours, friends, etc. Another source of language input would be media, such as television, whose language is different from the one used at home (Sun, 2018, p. 386). Many researchers complemented Krashen's theory, paying attention to the role of output in language acquisition (Pearson, 2007; Bohman et al., 2010). For example, Swain's Output Hypothesis (1985) believes that language production (written or spoken) can help students use that language fluently and accurately. As Swain states (1985, p. 148), it is during the process of linguistic production that students realize what they have learned and what they have not. In addition, this hypothesis states that the output process helps students learn the language in four ways (Swain, 1993, p. 160). Firstly, the output process provides opportunities for practice that develops automatic linguistic capability. Secondly, it encourages the student to move from semantic mental processes to expressive syntactic ones. Thirdly, it gives students the opportunity to test what they have learned and finally, during the production process, the student can get answers from other speakers, especially from the natives of that language, to see if they speak the language correctly.

### 3.3. Family socio-economic status

Many researchers consider that the family socio-economic status (SES) is associated with the results of children's language learning (Hoff-Ginsberg, 1998; Rowe and Goldin, 2009; Ginsborg, 2016). The SES is measured according to certain parameters such as the level of parents' education, the financial situation of the family (income), the professions of the parents, etc. (Tizard and Hughes, 1984; Hart and Risley, 1995). It can generally be classified into three categories: high, medium and low.

Children with a low SES have been proven to display lower language proficiency, compared to children with a high SES (Labov, 1966; Berstain, 1973; Hoff, 2003). Family income effectively predicts children's language development. A number of theories have been proposed to explain the inferior language proficiency of children with low SES. Hampton et al. (1995, p. 484) explain this from several perspectives: parents of a low SES are in such poverty that it limits their access to society and prevents them from benefiting from high-quality education. Ginsborg (2016, p. 17) concluded that the development of children's language is indirectly predicted by maternal language proficiency, which in turn is predicted by their SES, verbal intelligence and knowledge of child development. In addition, some academic studies suggest that it is worth studying the relationship between parents' education and the development of children's language, as it is a more reliable measure than the economic situation (Duncan et al., 1994; Entwisle and Astone, 1994). Parks and Smeriglio (1986) consider that parents' education involves knowledge about child-rearing, child development and home psychological stimulation, which influences children's cognitive development, and consequently, their language development.

### 3.4. Linguistic attitudes

The concept of attitude is not only limited to the field of Social Psychology, but also to Linguistics. The study of linguistic attitudes is important for Sociolinguistics, because it can predict a certain chosen linguistic behaviour and linguistic identity in bilingual communities. Giles and Ryan (1982, p. 7) considered linguistic attitude to be any affective, cognitive or behavioural indicator of evaluative reactions to different languages or speakers. According to Moreno (1998, p. 179), linguistic attitude is a manifestation of the social attitude of individuals, which is characterised by focusing and referring specifically to both language and their use in society. In this sense, the subjects of linguistic attitudes refer to linguistic varieties and to their speakers.

The role of linguistic attitudes has become a popular topic in studies of second language acquisition. It is believed that the attitudes of students towards the second language influence their levels of proficiency in this language (Dörnyei and Skehan, 2003, p. 590). In Krashen's opinion (1981, p. 28), apart from motivation, confidence and anxiety, attitude towards a language is considered an important variable which affects its acquisition. Students with low levels of self-confidence and a negative attitude towards the language receive little linguistic information, while students with high levels of confidence and a positive attitude towards the language obtain a great deal of linguistic information. Ellis (1994, p. 199) indicates that students who have positive attitudes towards the second language and their culture are more likely to succeed in acquiring that language than those who have negative attitudes towards it.

Studies investigating students' attitudes towards the acquisition of the second language contribute to sociolinguistic theory, because they take into account many important factors such as feelings, stereotypes, prejudices and expectations of the student, as well as linguistic characteristics. In Carranza's opinion (1982, p. 63), linguistic attitudes can help define speech communities, reflect intergroup communication, and help determine perceptions of students' ability.

## 4. Methodology

In order to study the social factors behind linguistic phenomena, it is necessary to collect information from subjects, especially regarding their identity, age, sex, family environment, economic status, etc. The most commonly used sociolinguistic research methods are, among others, the qualitative analysis, quantitative analysis and mixed analysis.

We have used different methods and instruments to collect and analyse the different qualitative and quantitative data. Although the qualitative-quantitative distinction presupposes two research approaches, these two methodologies are not exclusive. Dörnyei presented the mixed method: "Mixed methods research involves different combinations of qualitative and quantitative research either at the data collection or at the analysis levels. Typical example: consecutive and interrelated questionnaire and interview studies" (Dörnyei, 2007, p. 20).

### 4.1. Subjects

Data collection took place between September 2016 and January 2018. The research was divided into two parts: the first consisted in submitting a questionnaire with a series of questions. In the second part, various language tests were conducted, in order to determine knowledge of Spanish and Chinese, and compare the differences between children of Chinese origin, native Spanish children and native Chinese children.

First, we conducted a survey of 160 CCO from Huajiao School (Malaga), an institution where Chinese is taught at the weekend. Most of the children's parents are Chinese who emigrated to Spain more than 10 years ago. From the 160 children, 54 were between 7 and 9 years old and 26 between 10 and 13 years old.

In order to conduct a contrastive study, we tested 40 Spanish children of the same age as the MIT School in Malaga, and 40 native Chinese students from Nanhu Primary School in Wuhan (Hubei), province of China.

### 4.2. Questionnaire

Due to the low level of Chinese in the CCOs evaluated, the questions of the survey for students (see Appendix A) are formulated in Spanish, to facilitate their understanding. The questions take into account the following factors: age, date of birth, sex, address, place of birth of the subject, place of birth of his or her parents, time spent learning Chinese and Spanish, cultural identity (if they feel Chinese or Spanish), parents' education, parents' profession, family members, language of preschool education (Chinese or Spanish), mother tongue, linguistic ability, linguistic proficiency of family members, difficulties in the different languages, interest in languages, frequency of use of each language depending on context, etc.

### 4.3. Language tests

In order to compare the level of Spanish of children of Chinese origin with that of Native Spanish Children (NSC), we evaluated 40 Chinese children and 40 Spaniards in Malaga, whose ages were around 7 and 9 years old. The CCOs were students of the Huajiao School and the NSC were students of MIT, a bilingual private school in Malaga. The 40 children of Chinese origin took a 45 -minute test under the supervision of Ou (one of the author of this research), who taught at the Huajiao School, so as to provide a context similar to that of Spanish students. The test was divided into six exercises. The first exercise was to describe a few pictures; the second was based on vocabulary; the third on conjugations; the fourth was to complete the missing words in a text; the fifth on grammar; and the sixth was to write in Spanish about what each member of their family usually did throughout the days of the week. Likewise, we also tested 40 Spanish children who were in their second year of primary school at MIT, so that we could compare in detail these results with those of the Chinese children.

We then designed a Chinese language test to check the level of Chinese children and native Chinese children in order to assess first-year primary students at Nanhu School in Wuhan City, China. The maximum score was 100 points. To conduct a contrastive study, 40 students from Huajiao School in Malaga and 40 other students from Nanhu School in China were chosen.

The Chinese language test was divided into six parts: the first was about pinyin (phonetic alphabet of Mandarin Chinese that uses Latin script to transcribe Chinese characters); the second was to write the Chinese characters corresponding to each pinyin; the third was about vocabulary, where children had to write words composed of Chinese characters; the fourth was a to practice clauses, where children had to create a complete sentence with words given; the fifth was a comprehension exercise, where children had to answer specific questions after reading a text; the sixth was about written expression, in which children had to describe what was happening in a few photographs.

### 4.4. Phonological awareness test

Researchers have defined the concept of phonological awareness in different ways. Soprano (2011, p. 7) defines it as "the metalinguistic skill that enables the comprehension that words are made up of syllables and phonemes". In order to assess phonological awareness, different phonetic tasks must be analysed, such as deducting whether
a particular word rhymes (Bryant et al., 1990, p. 430), identifying the number of phonemes and syllables of any word (Wagner and Torgesen, 1987, p. 195), replacing the consonant of one word with another (for example, replacing the " g " of the word "go" with the " n " to change it into the word "no") and pronouncing a new word immediately (Stanovich et al., 1984). All of these tasks require participants to clearly recognise all the sonic elements of the word presented.

We have focused on the development of Spanish phonological awareness of children of Chinese origin from the age of 6 to 14. We designed a test (see Appendix B) for Huajiao School students and sorted children into three groups, based on their age. The test consisted of three exercises. Each exercise contained 12 sections, each of which was worth one point. In Exercise 1, on Rhyme oddity, there were 3 words in each section and students had to choose two words that rhymed with each other, for example: actividad/dificultad/estudiar. In Exercise 2, on Phoneme oddity, they were asked to write, among several words, the one that had been dictated (such as corto and gordo). In Exercise 3, on Calculation of phoneme, they had to count and compare the phonemes. They were asked to recognise which phonemes were similar and distinct between two words of similar pronunciations; for example, in the words tienda and diente -the second, third and fourth phonemes are the same, while the first, fifth and sixth are different.

## 5. Analysis of results and discussion

According to our results, Chinese is the first language for most Chinese children surveyed in Malaga (61.6\%), as it is the language that their parents teach them from birth until around the age of 3. By contrast, for $13.2 \%$ of these children, Spanish is their first language, as one of their parents is not Chinese and the language they use in the family is Spanish. $25.2 \%$ of them claimed that the Chinese dialect was also their first language, because their parents came from the same place in China and spoke that dialect. In this case, parents taught both Mandarin Chinese and Chinese dialect to their children in the early stages of their childhood.

However, regarding the degree of development of the Spanish and Chinese languages, the learning speed of children of Chinese origin differs at each stage. At two or three years old, as they enter a Spanish nursery, they begin to integrate into their environment by acquiring the Spanish language quickly. At the age of six, children enter Primary Education to receive a regulated and compulsory education, using Spanish spontaneously in this new period because of their environment. Meanwhile, their ability to learn Chinese begins to diminish and to develop at a slower rate due to several factors, both social and internal.

### 5.1. Language proficiency in each language

The assumptions underlying this study are based on the language proficiency of children of Chinese origin. According to the results of our research, the development of the Spanish and Chinese languages is not balanced; in other words, children of Chinese origin have better language proficiency in Spanish than in Chinese. After performing several different analyses using the Eviews 10 software, we have found that there are not so many differences in the results of the Spanish test between children of Chinese origin and Spanish native children, while there are differences in the Chinese test.

Besides that, the CCOs of our research do not show a big difference in their Spanish level compared to that of Spanish children, and they obtained a good result in Spanish tests, especially in oral and vocabulary exercises. By contrast, in the results of the Chinese test, they exhibited a considerable difference in level compared to native Chinese children. Although they had abundant Chinese vocabulary thanks to their parents, they had difficulty expressing what they wanted to say. In addition, their level of writing in Chinese was significantly lower than that of children living in China.

Previous studies (Díaz-Aguado, 2005; Pérez, 2009; Shum and Hu, 2013) concluded that Chinese children do not acquire Spanish well and do not achieve a good development in school; our results, however, indicate that children of Chinese origin performed in the Spanish test as well as native children. In fact, most of the Chinese children who we evaluated obtained good marks in the vocabulary and grammar tests. They were also able to distinguish the elements of a sentence (subject, verb, direct object, indirect object, circumstantial, etc.), falling a little behind Spanish native children in reading comprehension and writing. In the exercise of written expression, they tended to write sentences without punctuation and to confuse the use of the letters $b$ and $v, t$ and $d$, as well as to produce errors in the use of prepositions; they also found it difficult to differentiate the silent consonant h . In addition, they tended to repeat the same expressions and connectors, such as the conjunction y or the adverb también, using them in relatively simple and repetitive phrases.

Finally, in the phonology test, we found that the evolution of the sense of rhyme in Spanish can develop with age, but the inability to distinguish phonemes is maintained relatively steadily. By contrast, it is observed that Spanish pronunciation and the sense of rhyming in this language develop progressively.

### 5.2. The use of languages

In our research, the CCOs surveyed tend to use Spanish more often than Mandarin Chinese and the Chinese dialect. In their daily lives, Mandarin Chinese use it in certain situations, such as at home with their parents and in Chinese school; on the other hand, the Chinese dialect is used at home when talking to older family members, such as grandparents. Conversely, when talking to Chinese siblings and peers they prefer to use Spanish. We can note that $87 \%$ of them consider that they speak Spanish better than Chinese, claiming that they do this fluently and confidently, while showing some anxiety when speaking Chinese, especially in class.

Table 1. Context of language use

|  | Spanish | Mandarin | Dialect | Other |
| :---: | :---: | :---: | :---: | :---: |
| Home | 1.9 | 1.7 | 1.3 | 0.2 |
| Leisure | 2.3 | 1.8 | 0.9 | 0.3 |
| Shopping | 2.7 | 1.3 | 0.1 | 0.1 |
| Education | 2.9 | 0.7 | 0.1 | 1.1 |
| Communication with <br> locals | 3.0 | 0.1 | 0 | 0.3 |
| Communication with <br> foreigners | 0.8 | 0.1 | 0 | 2.8 |
| News | 3 | 0.5 | 0 | 0.7 |
| Mail | 2.7 | 1.3 | 0 | 0.5 |
| Chat | 2.8 | 1.3 | 1.3 | 0.4 |

### 5.3. External and internal factors influencing language proficiency of children of Chinese origin

In order to investigate the factors related to each CCO's language, we analysed the data of the two language tests separately. The following tables have attempted to relate the variables to the dependent variable Y (marks in language tests). We have obtained the following results in the Spanish test:

Table 2. Variables in the Spanish test

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| :---: | :---: | :---: | :---: | :---: |
| Sex | -0.160247 | 0.222341 | -0.720725 | 0.4737 |
| Linguistic attitude | 0.340449 | 0.137552 | 2.475054 | $* 0.0160$ |
| Frequency of Spanish use | 0.105080 | 0.315122 | 0.333457 | ${ }^{* * *} 0.0009$ |
| Self-assessment of proficiency in | 1.249965 | 0.324962 | 3.846495 | ${ }^{* * *} 0.0003$ |
| Spanish | 0.749921 | 0.259310 | 2.891981 | ${ }^{* *} 0.0052$ |
| Preschool education | 1.299630 | 1.282777 | 1.013137 | 0.3149 |
| Time studying Spanish | 1.432872 | 1.188112 | 1.706346 | $* * * 0.0004$ |
| Parents' education | 0.188946 | 0.355283 | 0.531819 | 0.5967 |
| Social identity | 0.108882 | 0.718571 | 1.230511 | 0.8192 |
| Parents' profession | 0.132872 | 0.188112 | 0.706346 | 0.4826 |
| Age |  |  |  |  |
| Evaluation of difficulty in the Spanishlanguage | -0.498231 | 0.292448 | -1.703656 | 0.0934 |
| Motivation | 0.113837 | 0.145104 | 0.784521 | 0.4357 |

Table 3. Variables in the Chinese test

| Sex | Coefficient | Std. Error | t-Statistic | Prob. |
| :---: | :---: | :---: | :---: | :---: |
| Frequency of Chinese use | -0.160247 | 0.222341 | -0.720725 | 0.4737 |
| Self-assessment of proficiency in <br> Chinese | 6.096316 | 4.250312 | 1.434322 | $* * 0.0064$ |
| Preschool education | 2.587995 | 3.321640 | 0.779132 | 0.4388 |
| Age | -0.750361 | 3.940646 | -0.190416 | 0.8496 |
| Evaluation of difficulty in the Chinese <br> language | 1.595373 | 2.605565 | 0.612295 | 0.5425 |
| Time studying Chinese | 0.741618 | 4.446428 | 0.166790 | 0.8681 |
| Parents' education | 1.595373 | 2.605565 | 0.612295 | 0.5425 |
| Parents' profession | 14.16779 | 3.779206 | 3.748880 | $* * 0.0007$ |
| Motivation | 7.741618 | 4.446428 | 0.166790 | $* * 0.0293$ |
| Sex | 4.294676 | 1.421624 | 3.020965 | $* * 0.0005$ |
| Frequency of Chinese use | -0.160247 | 0.222341 | -0.720725 | 0.4737 |
| Self-assessment of proficiency in | 6.096316 | 4.250312 | 1.434322 | $* * 0.0064$ |

Our data correlation analysis shows that the language proficiency of CCOs is related to several factors, both external and internal. With regard to proficiency in Chinese, the related external factors include the amount of input and output of Chinese ( $p=0.0064$ ), the education of their parents ( $p=0.0007$ ) and the profession of their parents ( $p=0.0293$ ); internal factors include linguistic attitude ( $p=0.0293$ ), social identity ( $p=0.0135$ ) and motivation ( $\mathrm{p}=0.0005$ ), which we will conclude in the next section. On the other hand, in the aspect of their proficiency in the Spanish language, the related external factors include the amount of input and output of the Spanish language ( $p=0.0009$ ) and the education of their parents ( $p=0.0004$ ); internal factors include linguistic attitude ( $p=0.0160$ ), self-assessment of their fluency in Spanish ( $p=0.0003$ ) and preschool education ( $p=$ 0.0052 ).

The results of our research have shown that children who have a positive linguistic attitude, a great motivation and a greater amount of input and language output achieve better language learning. Also, the education and profession of their parents are important factors in language learning. In addition, age is an important factor affecting second language learning in children of Chinese origin.

We can see in the results of our questionnaire that the CCOs had a more positive attitude towards Spanish than to Chinese. $61.8 \%$ of them thought that Spanish sounded prettier and more pleasant than Mandarin Chinese or the Qingtian dialect, $64.37 \%$ said that Spanish was more useful in their daily lives than other languages, $61 \%$ considered Spanish as the most important language as it directly affects their school performance and $63 \%$ had the opinion that Spanish was more prestigious, so they felt more confident when they spoke in Spanish than when they did it in Chinese. In addition, most CCOs considered Spaniards to be more friendly, polite and powerful, while the Chinese considered themselves to be more intelligent than the Spaniards and just as hospitable as them.

Figure 1. Linguistic attitudes of the CCO towards different languages


## 6. Conclusions

This study focuses on three fields of Linguistics: linguistic proficiency, language use and the factors that influence the proficiency of each language. This research examines the linguistic situation of Chinese immigrant children and analyses their use of language, their language proficiency, their language choice and the difficulties of their learning. Some sociolinguistic aspects and the acquisition of the second language have also been taken into account in analysing their context. To do so, our study has been based on data drawn from observations, questionnaires, tests and interviews, in order to explain the pattern of linguistic behaviour of immigrant children with highly reliable quantitative and qualitative data.

In our case, we have examined language learning in Chinese children in Malaga, specifically at Huajiao School, a centre where Chinese is taught exclusively for Chinese children at the weekend. By analysing the proficiency in both Spanish and Chinese of these bilingual children, we have been able to describe their situation and find the learning difficulties of each language, with the aim of trying to solve these difficulties.

The linguistic situation of Chinese children in Malaga is a typical case study of Chinese immigrant children abroad. These children are born and raised in a complicated linguistic environment, as their linguistic ability and language use are strongly affected by their social and family environment. To this end, although their rich vocabulary and level of oral expression are good, their reading and writing proficiency may be poor, as their parents generally cannot offer them academic help due to their lack of knowledge and their professions. Although it is normal for bilingual children to have difficulties in the later stages, they are easier to overcome, because thanks to age and education, they quickly acquire skills in both languages.

Our study has aimed to reveal the linguistic situation of children of Chinese origin in Malaga. Like any research, this study has certain limitations, such as the number of informants (160 surveyed) and the few previously existing studies. In the future, the number of participants could be increased and the study expanded to a greater number of areas so as to generate more accurate conclusions. For this reason, we have in mind to carry out additional empirical tests on the proficiency of bilingual Chinese children, for the purpose of addressing new issues.

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## Appendix A：Spanish questionnaire

Fecha：Sexo：⿴Hombre／⿴囗Mujer Fecha de nacimiento：／／Curso：Colegio：
Calle en la que vives：Nombre de tu pueblo o ciudad：
1．Eres：a）español／a b）chino／a c）de otro país
2．Pueblo o ciudad en que naciste tú：
3．Ciudad y provincia en que nació a）tu padre：b）tu madre：
4．¿En qué año llegaron tus padres a España？
5．Formación de tu padre：a）primaria b）secundaria c）universidad
6．Formación de tu madre：a）primaria b）secundaria c）universidad
7．Profesión de tu padre：a）empleado b）jefe c）profesor d）médico e）otros：
8．Profesión de tu madre：a）empleada b）jefa c）profesora d）médica e）otros：
9．Si tu padre o madre tienen un negocio，¿de qué tipo es？
a）restaurante b）tienda de ropa c）bazar d）alimentación e）otros：
10．¿Con quiénes vives en tu casa？
a）padre b）madre c）hermano d）hermana e）abuelo
f）abuela g）tío h）tía g）otros：
11．¿En qué año nacieron tus hermanos？Tu hermano Tu hermana
12．¿Cuál es tu primera lengua？
a）español b）chino mandarín
c）dialecto chino d）inglés e）otras：

13．¿Quién habla mejor el español？
a）Tú b）Tu hermano c）Tu hermana d）Tu madre e）Tu padre
14．¿Quién habla mejor el chino？
a）Tú b）Tu hermano c）Tu hermana d）Tu madre e）Tu padre
15．¿Qué lengua te interesa más？
a）español b）chino mandarín c）dialecto chino d）inglés e）otras：
16．¿Qué lengua te parece más difícil？
a）español b）chino mandarín c）dialecto chino d）inglés e）otras：
17．¿Te parece que hablas español igual que tus compañeros españoles？
a）sí，completamente igual b）un poco diferente c）no，completamente diferente
18．¿Cuántos años tenías cuando empezaste a estudiar chino en la escuela？
19．¿Cuántos años tenías cuando empezaste a estudiar español en la escuela？
20．¿Fuiste a una guardería infantil de chino antes de la escuela primaria？a）sí b）no
21．¿Fuiste a una guardería infantil de español antes de la escuela primaria？a）sí b）no
22．Marca con una cruz las lenguas que habláis

|  | Español | Chino <br> Mandarín | Dialecto chino <br> (qingtianhua) | Inglés | Otros: |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tú |  |  |  |  |  |
| Tu padre |  |  |  |  |  |
| Tu madre |  |  |  |  |  |
| Tus hermanos |  |  |  |  |  |
| Tus abuelos |  |  |  |  |  |
| Otros: |  |  |  |  |  |

23. Marca con una cruz la lengua que utilizas cuando tú hablas con estas personas

|  | Español | Chino <br> Mandarín | Dialecto <br> chino | Inglés | Otros: |
| :---: | :---: | :---: | :---: | :---: | :---: |
| con tu padre |  |  |  |  |  |
| con tu madre |  |  |  |  |  |
| con tus hermanos |  |  |  |  |  |
| con tus abuelos |  |  |  |  |  |
| Con tus compañeros <br> chinos |  |  |  |  |  |
| con tus compañeros <br> españoles |  |  |  |  |  |

24. Marca con una cruz la lengua que habla mejor cada persona

|  | Español | Chino <br> Mandarín | Dialecto chino <br> (qingtianhua) | Inglés | Otros: |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tú |  |  |  |  |  |
| Tu padre |  |  |  |  |  |
| Tu madre |  |  |  |  |  |
| Tus hermanos |  |  |  |  |  |
| Tus abuelos |  |  |  |  |  |
| Otros: |  |  |  |  |  |

## Appendix B: Spanish phonological awareness test

1. Elige las dos palabras que riman entre sí.

Por ejemplo: actividad dificultad estudiar
1.1 catalejo pitufo añejo
1.2 pecera cabecera cerca
1.3 abuela sorpresa ciruela
1.4 canción corazón atención
1.5 cadera muñeca mesera
1.6 jugará mañana volverá
1.7 sortija manija ventana

| 1.8 vibro | tranquilo desequilibro | desequilibro |
| :---: | :---: | :---: |
| 1.9 reconocer | empezar permanecer | permanecer |
| 1.10 roció | desapareció sucio | sucio |
| 1.11 lluvia | rubia julio | julio |
| 1.12 medio | sentado escuchado | escuchado |
| 2. Subraya las dos palabras que tienen pronunciaciones más parecidas. |  |  |
| 2.1 corto | gordo busto |  |
| 2.2 arboleda | mensajera humareda | humareda |
| 2.3 fiesta | febrero siesta | siesta |
| 2.4 gótico | cálido código |  |
| 2.5 letra | cuarta entra | entra |
| 2.6 vista | lista pista | pista |
| 2.7 cuadro cuatro | cuarto |  |
| 2.8 compañero | cocinero temprano | temprano |
| 2.9 espera espina | estilo |  |
| 2.10 edificio estudio | beneficio |  |
| 2.11 flores | deberes colores |  |
| 2.12 viniste triste | fiesta |  |
| 3. Cuenta el número de fonemas en cada palabra y subraya los mismos fonemas entre las dos. |  |  |
| Por ejemplo: tienda |  | diente (6) |
| 3.1 flamenco | () tranquilo () | ilo () |
| 3.2 explicar | () explorar () | ar () |
| 3.3 mecánico | () simpático () | ico () |
| 3.4 escalera | () parcela () | () |
| 3.5 presentar | () permitir () | ir () |
| 3.6 nadar () | natal () |  |
| 3.7 trabajar | () tenedor () | r () |
| 3.8 número | () nombre () | e () |
| 3.9 girasol () | ventanal () | () |
| 3.10 zapatería | () cercanía () | ía () |
| 3.11 recuerdo | () concierto () | rto () |
| 3.12 zapato | () sábado () | ( ) |

