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Development of Reading in Multilingual Environments in 2nd Grade Children

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Abstract

The main objective of this study is to assess the Spanish literacy competence of students enrolled in bilingual and trilingual programs by analyzing the developmental process and evolutionary course of reading during the first cycle of Primary Education. This analysis aims to determine whether the reading skills in Spanish of students in multilingual schools are affected by immersion in a foreign language, in this case, English. To achieve this, a total of 258 second-grade primary students were examined, categorized into groups based on the number of languages they knew (two or three), in comparison to a control group of monolingual students. Two variables were measured: intelligence using the WISC-IV and literacy competence using the TALE. The results of both tests indicate that there are no significant differences in reading competence between bilingual and trilingual students and monolingual students. These results reinforce the idea that learning to read is a process not influenced by the number of languages spoken.

Keywords: multilingual, skills, development, reading, writing

1. Introduction

The teaching of foreign languages in the Spanish educational system has always occupied an important place. Some Autonomous Communities have regulated its start from the age of three. Its study is carried out on a general and mandatory basis from early childhood education to the end of post-compulsory education, that is, until the age of 18. This means that young Spaniards who complete their secondary education study a language for a minimum of 10 years and currently do so for up to 15. This is undoubtedly more than enough time to achieve good levels of linguistic competence (Gisbert, 2011). The study of second and third language acquisition is of current scientific interest, especially in the educational context. In the current European social framework, characterized by linguistic diversity, it appears essential that one of the central objectives of European language policy is the promotion of bilingual and multilingual education, understood as a value and competence (Madrid, 2005; Rumlich, 2020).

Plurilingualism is defined as the ability to use multiple languages for interpersonal communication, including intercultural competence, as communication with other people involves intercultural interaction (García & Otheguy, 2020). In 1999, UNESCO, in its Resolution 30 C/12, advocated multilingual education as the only way to meet the demands of global and national participation, as well as to address the specific needs of different communities concerning their culture and language (UN-UNESCO, 2003). It should also be noted that linguistic diversity is an educational value associated with linguistic tolerance and intercultural education (Beacco & Byram, 2003; Busse et al., 2020; Council of Europe, 2002; Council of Europe, 2005; Cervantes Institute, 2005; Røyneland & Lanza, 2023). Bilingualism and multilingualism should be considered valuable tools for students' personal education and citizenship education. Therefore, it is of particular importance for educational systems to promote the status and development of linguistic repertoires considered as linguistic varieties (languages) available to the community (Beaco & Byram, 2003; Lüdi, 2021). Furthermore, research has shown that bilingualism and multilingualism enhance students' cognitive abilities (Baker, 2000; Boumeester et al., 2019; Cummins, 1989; Krashen, 1996; Mehisto & Marsh, 2018; Tsimpli et al., 2020).

It is clear that the development of languages other than the native language needs to be promoted. Under the premise of plurilingual development, new ways of conceiving foreign language teaching have been developed in

Europe, including Spain, since the 1990s, materializing these ideas in the implementation of bilingual and multilingual programs on a large scale through the CLIL model (Content and Language Integrated Learning). In Spain, CLIL programs are present at all educational levels, although they are more prominent in the Primary and Secondary levels. The organization of these programs may vary between autonomous communities and even sometimes between schools, but, in summary, it could be said that in most schools, the percentage of immersion in the foreign language ranges from 35% to 50% (partial immersion), and the most commonly taught subjects through the foreign language are Science, Physical Education, Arts, and Music. The plurilingual perspective promoted by European institutions implies the diversification of languages offered in educational institutions. A threat to the promotion of plurilingual competence is the overwhelming presence of English bilingual programs, not only in Spain but also in the rest of the European scene. The limited availability of bilingual programs in other languages (German, Spanish, French, Russian, Italian, etc.), along with the clear dominance of English as the first foreign language in European educational curricula, are evidence that the goal of plurilingualism is far from being achieved. Since the introduction of bilingual programs in Spain through the CLIL model, numerous studies have been conducted on the levels of foreign language (English) proficiency achieved by students (Lasagabaster, 2008; Ruiz de Zarobe & Lasagabaster, 2010; Navés & Victori, 2010; Villoria, Hughes, & Madrid, 2011). The academic performance of students in subjects taught through the foreign language (English) has also been studied, albeit to a lesser extent (see Sierra, Gallardo del Puerto, & Zarobe, 2011; Madrid, 2011; Anghel, Cabrales, & Carro, 2013). However, research on the influence of the foreign language on the development of students' L1 (first language), not only in the Spanish context but also in other European contexts, remains scarce (Sierra, Gallardo del Puerto, & Ruiz de Zarobe, 2011).

For instance, Cabrelli et al. (2019) concluded that there was a phonotactic influence of L1 on the perception of L2 in Portuguese-English bilingual students. Yamashita (2004) identified the presence of difficulties in the development of verbal inflectional morphology in English-Spanish bilingual students. From observations in various studies, there is a genuine need to conduct field research in bilingual institutions and make the results available to educators (Segovia, 2008).

Moreover, various authors focused on the study of phonetic-phonological implications in the reading development of multilingual individuals have underscored the importance of transparency in both languages (Bellocchi et al., 2012; Niolaki & Masterson, 2012). For instance, Meshyan and Hernández (2005), examining bilingual individuals with Spanish as L1 and English as L2, demonstrated an increased latency in L2, identified as their less proficient language. In this regard, it appears that differences in the consistency of phoneme-grapheme correspondence in transparent and opaque languages may account for this phenomenon (Soares et al., 2023). Additionally, scholars such as Haim (2015) have addressed the extent of academic literacy transfer in trilingual individuals, concluding that literacy proficiency in L1 predicts reading and writing performance in L2 and L3.

Therefore, we believe it is important to conduct an in-depth study on the implementation of bilingual and trilingual programs in Spain through the comparison of reading competence acquired by students during the first cycle of Primary Education. The main objective of this study is to determine the level of Spanish reading competence in students from bilingual and trilingual programs. The secondary objectives are:

- Analyze the development process and evolutionary course of reading in the first cycle of Primary Education (1st and 2nd grade).
- Determine whether the Spanish reading skills of students in bilingual and trilingual schools are affected by immersion in the foreign language (English).

2. Method

Procedure. For the sample selection, contact was made with different national primary schools (non-CLIL schools, schools with bilingual programs in English, and a school with a multilingual program in Spanish-Valencian-English) whose students could be suitable for each of the proposed experimental groups. Initially, a phone call was made to explain the project's objectives and the possible involvement of the schools. Once participation was accepted, written authorization was obtained from parents. Furthermore, researchers visited the schools where data collection was carried out. Children were individually taken from the regular classroom to a designated room, where a team member conducted the tests.

Instruments. For intelligence assessment (for the prior matching of experimental groups), the WISC-IV test (Weschler, 2003) was used. To evaluate reading and writing, the TALE test (Toro & Cervera, 1984) was used. This test is designed to determine general reading and writing levels for children aged 6 to 10. It comprises two parts (Reading and Writing), each of which includes several tests. In the case of reading, it evaluates letter

reading (uppercase and lowercase), time spent on each, syllable readings, time spent on syllable readings, word reading (and pseudowords), corresponding time spent, time spent on automatic text reading, time spent on comprehensive text reading, correct answers in comprehensive reading, and total score (in reading).

Participants. The sample consisted of a total of 258 2nd-grade students. The monolingual group (comprising students from non-CLIL schools in various autonomous communities) and the two experimental groups (bilingual – Aragon, Castilla-La Mancha, and Madrid – and trilingual – Valencian Community) each consisted of 86 students. In the monolingual group, students receive 3 hours of English per week. The schools to which these students belong do not offer extracurricular English classes. Students in Spanish-English bilingual schools study at least one more curricular subject in English, in addition to the English subject. Finally, students in the trilingual school receive 6 weekly sessions of English and 4 weekly sessions of Valencian.

3. Results

The results of the ANOVA show significant differences in the effect of Group on several variables, which are detailed below. In the total score for lowercase letter reading, the trilingual group displayed the highest number of correct answers ($F (1, 257) = 19.83$; $p < .001$ compared to the monolingual group and $F (1, 257) = 9.93$; $p < .001$ compared to the bilingual group). On the other hand, there are significant differences in favor of the monolingual group in the time spent on the automatic reading test. This group showed a higher reading speed in this task compared to the other two experimental groups ($F (1, 257) = 2.44$; $p < .001$ compared to the bilingual group and $F (1, 257) = 0.30$; $p < .001$ compared to the trilingual group). Lastly, the data indicate that there are also significant differences in the total reading score (reading of…) (correct answers) in favor of the trilingual group ($F (1, 257) = 28.37$; $p < .001$ compared to the monolingual group and $F (1, 257) = 8.64$; $p < .001$ compared to the bilingual group). There are also significant values between the bilingual group and the trilingual group in the time spent on uppercase letter reading, in favor of the trilingual group ($F (1, 257) = 11.74$; $p < .005$). There are no significant differences between the monolingual and bilingual experimental groups in any of the tests. In summary, it can be stated that there is no lower reading competence in Spanish in either the bilingual or trilingual groups compared to the monolingual control group.

4. Discussion

The main objective of this research was to determine whether the reading competence in Spanish of students participating in bilingual and trilingual programs was affected by exposure to English and whether their competence was evolving in line with their age. This study also aimed to shed light on an underexplored area in CLIL research, which is the learning of the mother tongue. The results of our study demonstrate that the reading competence in Spanish of the participants is not affected by the CLIL program. It appears that students are capable of keeping their L1 and L2 (and, in the case of students in the Valencian Community, an L3) separate. These results align with findings from other research in the European (Merisuo-Storm, 2007; Seikkula-Leino, 2007) and national (Egiguren, 2006, cited in Ruiz de Zarobe & Lasagabaster, 2010; Ramos, Ortega, & Madrid, 2011) contexts. The results of this study appear to confirm the correlation between the use of learning strategies and learning effectiveness. Various studies have pointed to the close relationship between the development of the ability to read and write in L1 and the acquisition of second languages, as there is a transfer of competencies developed during the L2 learning process to L1. These competencies refer to the subskills required for lexical decoding, such as phonological awareness and letter-sound correspondence recognition (Erdos, Genesee, Savage, & Haigh, 2010; Genesee & Jared, 2008). Therefore, it could be concluded that learning content through an L2 fosters the development of metalinguistic awareness in L1, which is crucial for acquiring reading and writing competence.

Our results have shown how phonological differentiation between languages does not give rise to a different pattern of reading learning. These results have also been documented in several languages. For example, in the case of English-French bilingual children (Krenca et al., 2020), English and different Asian languages (O'Brien et al., 2019) and English and Dutch (Kwakkel et al., 2021). In this regard, some studies suggest that while phonological awareness develops in multilingual children in response to exposure to different languages, decoding ability develops based on the level of competence and explicit, individualized instruction in each language, without transfers occurring between them (Bialystok et al., 2005; Li et al., 2021). Besides, Lallier and Carreiras (2018) suggest that the impact of bilingualism on early literacy in children depends on the specific combination of languages learned, and it does not manifest similarly across all bilingual populations.

However, our data seems to suggest a higher level of proficiency in trilingual individuals, although with longer latency times compared to monolingual individuals, in line with other studies (Brito et al., 2014; Byers-Heinlein & Werker, 2009; Hsu, 2014; Silverman et al., 2015).

Finally, to confirm that learning curricular subjects in English is not detrimental to students' overall linguistic competence in Spanish, it would be necessary to determine whether the ability to write in Spanish for students in the experimental groups is also unaffected by learning content through English. Similarly, based on the data collected in this study, it would be interesting to explore whether there are significant individual differences among students in the experimental groups based on their L1 (Spanish, immigrant language, or Valencian) or what methodological and program organization aspects may be contributing to the proper development of Spanish for the students participating in the research. The strong commitment of autonomous communities to the CLIL model requires rigorous, comprehensive research on the effect of these programs on students' L1, making more research in this area necessary, especially in the Primary Education stage, which is considered one of the most critical in terms of learning. Therefore, it seems clear that learning several languages can contribute to satisfactory reading development. Now, educational systems must be able to respond to how to implement it correctly within the classrooms.

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No additional data are available.

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