

Bilingualism in children born to native Spanish-speaking teachers of English as a Foreign Language. A case study in Ecuador

Bilingüismo en hijos de profesores nativos hispanohablantes de inglés como lengua extranjera. Un estudio de caso en Ecuador

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ABSTRACT

There is insufficient background research on the bilingual acquisition of teachers' children. Our objective was to identify exposure-related factors that determine bilingualism in children born to English teachers. We conducted a correlational study using snowball sampling, collecting data from 49 teachers who have at least one child, through a survey designed specifically for our study. As a result, 70% of participants stated that all their children speak English fluently, while the remaining 30% reported that they do not. The McFadden R^2 value, which assesses the proportion of variability explained by the logistic regression model, was found to be 0.386. We observed an approximate increase of 0.273 points in English fluency for each additional year in the age of the youngest child. Moreover, interaction in English at home is significantly linked to approximately 2.211 times higher odds of children speaking English fluently compared to those without such interaction. On the other hand, acquiring English from birth is associated with approximately 1.653 times higher odds of children achieving fluency in English. These findings hold significant implications for linguistic education and underscore the importance of creating suitable environments that foster consistent exposure to English from an early age, to cultivate higher and lasting mastery of the language.

Keywords: bilingualism, English as a foreign language, teacher-parent, acquisition from birth

RESUMEN

No hay suficientes investigaciones de fondo sobre la adquisición del bilingüismo en los hijos de profesores. Nuestro objetivo era identificar los factores relacionados con la exposición que determinan el bilingüismo en los hijos de profesores de inglés. Realizamos un estudio correlacional mediante muestreo de bola de nieve, recogiendo datos de 49 profesores que tienen al menos un hijo, a través de una encuesta diseñada específicamente para nuestro estudio. Como resultado, el 70% de los participantes afirmaron que todos sus hijos hablan inglés con fluidez, mientras que el 30%

restante declaró que no lo hacen. El valor R^2 de McFadden, que evalúa la proporción de variabilidad explicada por el modelo de regresión logística, resultó ser de 0,386. Se observó un aumento aproximado de 0,273 puntos en la fluidez en inglés por cada año adicional en la edad del hijo menor. Además, la interacción en inglés en casa está significativamente relacionada con una probabilidad aproximadamente 2,211 veces mayor de que los niños hablen inglés con fluidez en comparación con los que no tienen dicha interacción. Por otra parte, la adquisición del inglés desde el nacimiento se asocia con una probabilidad aproximadamente 1,653 veces mayor de que los niños alcancen la fluidez en inglés. Estas conclusiones tienen implicaciones significativas para la educación lingüística y subrayan la importancia de crear entornos adecuados que fomenten una exposición constante al inglés desde una edad temprana, para cultivar un dominio mayor y duradero de la lengua.

Palabras clave: bilingüismo, inglés como lengua extranjera, profesor-padre, adquisición desde el nacimiento

INTRODUCTION

Several myths surround language acquisition—some more common than others among societies—and they often may affect this natural process that we all undergo as a species. One such myth is that any delay in a child's development in a given area is due to excessive affection. For instance, it's believed that a child deeply loved by their parents may take much longer to walk or talk, which sounds nonsensical. However, another common belief is that exposure to two languages in infancy results in delayed language acquisition and utter confusion. Studies have demonstrated otherwise. Therefore, this work aims to understand the relationship between the success of Spanish-speaking teachers of EFL (English as a Foreign Language) in having their children acquire English from birth and their failure to do so.

THEORETICAL FRAMEWORK

The context EFL teachers encounter in raising their children can favor or negatively affect the acquisition of bilingualism in newborns. For instance, the amount of language directed at children plays an important role in this process. A study on this matter introduces another major factor in developing bilingualism in children: exposure to the target languages. According to Oller (2010), children's production of languages correlates with the number of languages used in direct communication and the number of languages used in a non-direct manner. In other words, the greater the exposure to direct interaction with the target languages, the higher the expected production in children. However, if the exposure is non-directed or through overhearing, the production in those languages decreases. These findings demonstrate how using the target languages in straightforward communication with children can result in higher production levels in those languages.

The outcome of achieving bilingualism remains the same, whether it is simultaneous or sequential; however, the latter demands higher and more conscious effort on the learner's part. Simultaneous bilinguals are speakers who acquired the two languages as a result of exposure to them from birth; sequential bilinguals, on the other hand, learned

the two languages one after the other. Lai & Wei (2019) evaluated Krashen's¹ Monitor Model and referred to the distinction Krashen makes between language acquisition and learning. They state, "The former, acquisition, is a subconscious and implicit process to develop a feeling towards the language use by focusing on 'real communication' of meanings, similar to the acquisition of a mother tongue for children" (p. 1459). Therefore, this study aims to comprehend what prevented English teachers from ensuring that their children acquired, rather than learned, English.

Furthermore, considering the context of most Latin American countries where Spanish is the official language, the children of English teachers are likely to be exposed to the phenomenon of code-switching. This term refers to using two or more languages within the same conversation. Bilingual speakers, for instance, may use two different codes (languages) even within the same sentence. In the context of families where attaining bilingualism is a goal, code-switching is of paramount importance. Thus, Kremin et al., (2022), reflecting on the work of authors such as Comeau et al., 2003, and Yip & Matthews, 2016, claim that "research on children's early productions of code-switching has found that children code-switch at a similar rate to their parents, suggesting that parental code-switching may serve as a model for developing bilinguals" (p. 10). Contrary to the common belief that such practice causes confusion and limits language proficiency in children, this statement clarifies that exposure to two languages leads to attaining bilingualism.

A common term in the United States and Canada for the children of immigrants, as presented by Paradis and Jia (2017), is ELLs, which stands for English Language Learners. These children often speak a minority language as their L1. As they move with their parents to an English-speaking country, they learn this new language as their L2. In contrast, in Spanish-speaking countries, children born to English teachers who succeed in attaining bilingualism acquire or learn English as a foreign language. Paradis and Jia's study (2017) focuses on individual environmental factors that affect the long-term outcomes in English as a second language for these children and how that determines their ability to catch up with monolingual peers. Such factors include the quantity and quality of exposure to English depending, for example, on the language proficiency level of the main caregivers. This statement means that the children of EFL teachers should be able to become bilingual despite facing multiple constraints, given that Spanish is the L1 within their surroundings and exposure tends to be highly limited.

Additionally, the practices included inside and outside the household by the families become relevant to accomplishing the goal of bilingualism. Following King et al. (2008), Family Language Policy (FLP) studies the interaction between the caretaker and the child regarding language management, learning, negotiation, and the development of bilingualism within families. The roles of families are highlighted in the objective of developing two or more languages in a child, as parents can create and control environments to immerse children in the realistic use of the English language. It is worth considering in the present study

that the fact English is taught as a foreign language, and not as a second language since Spanish is the official language in most Latin American countries, has a direct impact on the feasibility of children born to English teachers, as well as the whole population, of becoming bilingual.

There is similar relevance in understanding what and how long it takes immigrant children in the United States and Canada, as Paradis and Jia (2017) put forth, to reach monolingual native proficiency levels in English and in the use that Spanish language speakers can make of English as a foreign language in both academic and professional fields with opportunities abroad. Therefore, it is proper for EFL teachers to take advantage of being a bilingual parent who already possesses English as a tool and ensure that their children become bilingual from an early age. Additionally, Nguyen and Winsler (2021) present numerous benefits of bilingualism, one of which is that early learning of two languages greatly facilitates the learning of a third language or more.

STATE OF THE ART

An extensive search for similar studies revealed only a few in which English teachers specifically report on their efforts to achieve simultaneous bilingualism in their children. In this context, Alarcón and Nieto (2023) conducted a study in Spain, highlighting the personal and financial efforts of 17 families raising bilingual children for future opportunities. Nowadays, proficiency in more than one language offers significant educational and labor market advantages. These families implemented various bilingual strategies in their daily lives, evolving into a Family Language Policy (FLP) that created immersive environments for children to learn the target language, fostering motivation, self-confidence, and enjoyment of languages and cultures.

In our globalized world, bilingualism, or even multilingualism, is not just impressive but increasingly necessary, offering benefits from social likability to broader academic and professional opportunities. Nieto and Alarcón (2023) found that the families in their study deeply believed in the value of English for their children's future, viewing it as a vital lingua franca and a sign of responsible parenting.

The study by Nieto and Alarcón (2023) described the efforts of Spanish families, similar to our research, where at least one parent was proficient in English. This language, foreign to their native Spanish and not commonly spoken in Spain, was used to raise their children. The study encompassed 16 families with 31 children aged 4 to 18, raised using either the One-Person-One-Language (OPOL) strategy or the Time and Place strategy. The latter involves using English at specific times and places, such as bedtime stories. Data were collected through interviews employing qualitative and ethnographic methods. The families were questioned about their FLP based on Spolsky's (2009) components: language beliefs, practices, and management. The families expressed a belief that the modern world necessitates English proficiency for their children's academic and professional success.

¹ Krashen's Monitor Model "is one of the first comprehensive theories for the explanation of second language acquisition" (Lai & Wei, 2019) consisting of five hypotheses: a) The Acquisition-

learning Hypothesis, b) The Monitor Hypothesis, c) The Natural Order Hypothesis, d) The Input Hypothesis, and e) The Affective Filter Hypothesis.

Regarding practices, Nieto and Alarcón (2023) discovered the use of both OPOL and Time and Place strategies, which facilitate language immersion in real-life contexts. Another practice involved bilingual siblings, where older siblings raised in English positively influenced the younger ones, fostering a unique bond. Concerning language management, the families reported challenges in maintaining immersion practices as their children aged and their social circles expanded, with the native language gaining prominence. This shift necessitated negotiations regarding the use of English at home. The authors concluded that despite challenges, these families' decision to pursue elective bilingualism was successful.

Furthermore, Nieto and Alarcón (2023) explain that:

Interestingly enough, while the digital world is an ally, the social context becomes a threat, and bilingual practices are usually confined to the home environment. Some families reported that, when speaking in English in public, they have been the focus of criticism by those who consider this child-rearing as an extravagance. Thus, social censure seems to have influenced the abandonment of the practice in some cases, which can be interpreted as an outcome in connection to the so-called "tall poppy syndrome"² phenomenon (p. 147).

The aforementioned circumstance refers to the reaction that others sometimes have when they perceive someone as boasting about their success. In the context of native Spanish-speaking families, it is common for people to react negatively when these families use a language other than their own with their children.

The phenomenon of bilingualism in Slovakia was explored in a study focusing on an English teacher raising her children through intentional bilingualism. Hurajová (2022) conducted a qualitative case study using the One-Person-One-Language (OPOL) strategy, exposing the children to both Slovak and English. The process involved three stages: the mother consistently using English, achieving high interaction levels with her son from ages 3 to 6, and the child's formal education leading to reduced English usage. The mother's inconsistency and lack of persistence resulted in the loss of bilingualism in the first child. The researcher notes that the first child, at age 15, participated in a Slovak-English bilingual program. However, using similar strategies with the second child, a daughter, did not yield the same level of bilingualism due to the influence of the older brother, who spoke mostly Slovak. The study concludes that parental motivation, endurance, the domain of the target language, time, funds, adherence to strategy, and birth order are crucial factors influencing bilingualism success.

In elaborating on our selection of independent variables – the age of the last child, interaction in English, and target language acquisition from birth – it is important to note the lack of studies regarding them. The age of the last child was chosen to explore any potential influence of the child's age on bilingualism attainment, aligning with the Critical Period Hypothesis (Lenneberg & Chomsky, 1967) and its implications for language proficiency. Additionally, the level and frequency of interaction in English within the familial

environment are fundamental in understanding the impact of language exposure on bilingualism development. Lastly, initiating target language acquisition from birth is a crucial factor that aligns with existing research highlighting the significance of early exposure to foster natural language acquisition. The selection of these variables aims to dissect and comprehend the multifaceted elements contributing to the acquisition of bilingualism among children of English language teachers.

Based on the literature reviewed on our topic and the absence of information about the age of the last child, interaction in English, and target language acquisition from birth, we propose the following research questions:

1. What is the percentage of the teachers' children who speak English fluently?
2. How much do age, interaction in English and Spanish, and the interaction only in English from birth contribute to speaking English fluently?
3. What other factors could contribute to explaining English fluency in the teachers' children?

METHODOLOGY

The current observational study employs a correlational research design (Cabrera-Tenecela, 2023; Campbell & Stanley, 2015). The non-probabilistic sample consists of 49 participants, gathered using the snowball sampling method, including both high school teachers and university professors. On average, the participants have 1.94 children (SD = 0.747). These EFL professors have a minimum of 3.21 years of teaching experience (SD = 1.01) at the university level. They were surveyed about their children's fluency in English relative to their chronological age, whether they spoke English from birth, and the age of their children. The statistical analysis was conducted using a binary logistic regression to determine if the child speaks English fluently, with responses categorized as 'Yes' or 'No'.

The data collection process involved a survey comprising 15 questions about the experiences of English language teachers in raising their children and fostering bilingualism. The survey was validated by two colleagues with experience in similar research. They suggested modifications to the terminology of the original questionnaire, which the authors implemented. Google Forms was used for administering the survey, which took approximately 10 minutes to complete. Contact with participants was established through WhatsApp and email, and the information was provided with explicit consent, under the assurance of confidentiality.

A logistic regression analysis, conducted using Jamovi (The jamovi project, 2023), examined the relationship between the categorical dependent variable (children's fluency in English) and independent variables (age of the last child, interaction in English, and acquisition of the target language from birth). To validate the use of this model, we ensured the independence of observations, absence of multicollinearity, and linearity of independent variables with the log odds. The resulting coefficients indicated the strength and direction of the relationships between the independent

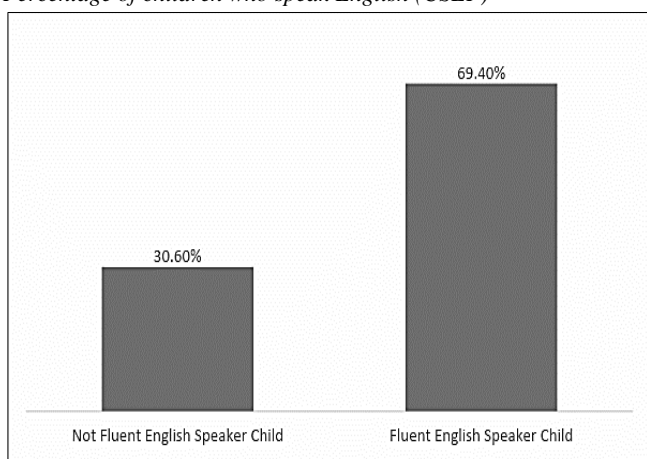
²Tall poppy syndrome is "a person who is conspicuously successful, especially one who attracts envious notice or hostility." (Australian National University, 2017).

variables and the dependent variable. The p-values associated with these coefficients were evaluated to determine the statistical significance of the relationships between the independent variables and the likelihood of speaking English fluently. The McFadden R² was employed as a measure of model fit, indicating the proportion of variability explained by the independent variables in the context of the logistic regression.

RESULTS

The results are presented in two sections; the first describes the percentage of children who speak English (CSEF) (Figure 1), followed by the description of the independent variables such as age (Figure 2), how parents talk to their children (Figure 3), as well as their opinion of where they learned or have learned English so far: from home or school (Figure 4). The second section presents the logistic regression in which the R² and the contribution of each of the variables in question are established (Table 1).

Figure 1.
 Percentage of children who speak English (CSEF)



On average the age of the last non-English speaking child is 6.53 years (SD 3.40 years) and the age of the ones who do speak English is 14.0 years (SD 8.37 years). Figure 2 illustrates these differences.

Figure 2.
 Age of the teachers' last child

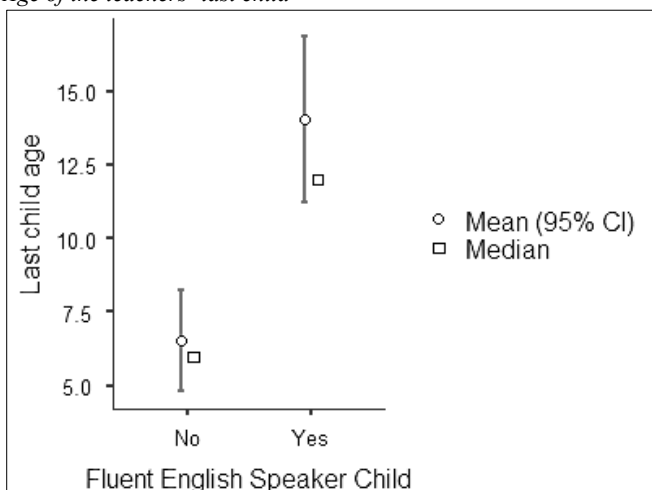
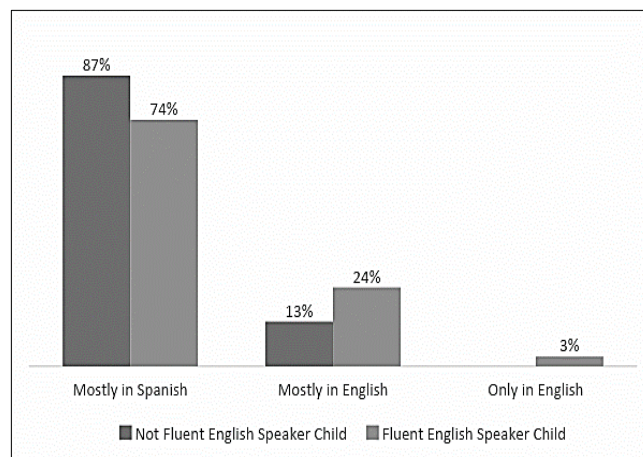


Figure 3 shows the results of the differences between children who speak English and those who do not, based on whether the parent speaks English at home. If they speak mostly Spanish, the children are consequently not fluent in English. A representative group of English-speaking children also received interaction with their parents mostly in English or only in English.

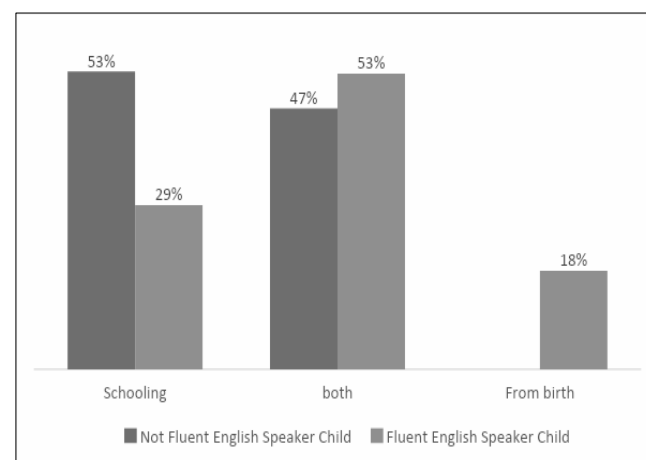
Figure 3.
 How teachers talk to their children at home



Finally, parents were asked whether the children spoke English as a product of schooling, a combination of schooling and acquisition from birth, or only acquisition from birth. Clearly, most of those who speak English did so at home from birth or combined acquisition from birth and schooling (refer to Figure 4).

A binary logistic regression model was performed to expose the explanatory level of each of the three variables studied, taking fluent English speaking as the dependent variable. For this purpose, it was verified that there is no collinearity. Thus, the McFadden R² was found to be 0.386, which suggests that this model explains a moderate proportion of the variability of the data.

Figure 4.
 View of where they learned or have learned English so far: from home or school.



The results from the logistic regression coefficients are summarized in Table 1. Concerning the age of the youngest child, there is an observed increase of approximately 0.273

points in English fluency for each additional year of the child's age. The variable indicating whether English is spoken to them reveals that speaking English to these children increases their odds of speaking English fluently by about 2.211 times compared to not speaking English to them. Moreover, when children acquire the ability to speak English from birth, the likelihood of them speaking English increases approximately 1.653 times. In summary, speaking English at home emerges as the strongest predictor in explaining the fluency level in the target language among these children.

Table 1.

Coefficients model to explain the question Does your child speak English fluently according to his/her age?

Predictor	Estimator	EE	Z	p
Constant	-7.187	2.4580	-2.92	0.003
Last child age	0.273	0.0935	2.92	0.004
Do you speak to them in English?	2.211	1.0153	2.18	0.029
They speak English because of acquisition from birth.	1.653	0.7723	2.14	0.032

Note: The estimators represent the log odds of 'Do/Does your children/child speak English? = Yes' versus 'Do/Does your children/child speak English? = No'

DISCUSSION

The findings of our research suggest that early exposure to two languages in children often leads to natural bilingualism. The quality of the child's language output is linked to the proficiency of the caretaker who speaks the second language (L2) to them. Given that the language used in these interactions is typically basic, it can be expected that an English teacher would be proficient enough to teach English to their children from birth. Therefore, early exposure to both languages from birth is more likely to ensure successful acquisition, as demonstrated in our study.

Families intending to adopt bilingualism often apply approaches they fully understand, though some may do so without empirical knowledge. In the study by Nieto and Alarcón (2023), the One-Person-One-Language (OPOL) strategy was effective. It showed that having one parent speak one language and the other parent another was sufficient for the child to become bilingual. Our study is similar, examining English teachers who, knowingly or unknowingly, applied OPOL in teaching bilingualism to their children from birth. However, the success in achieving bilingualism may be influenced by the participants' intentions in each study.

On one hand, the 17 Spanish families in Alarcón and Nieto's (2023) study deliberately applied strategies to facilitate the acquisition of their native language, Spanish, and English as a lingua franca, aiming to provide their children with a valuable academic and professional tool. On the other hand, most participants in our study seemed to rely on schooling to ensure bilingualism in their children, rather than early exposure from birth, despite their high interest in having their children acquire English.

Additionally, our findings indicate that the age factor is the least significant explanation for the dependent variable.

However, according to the Critical Period Hypothesis, the child's age is associated with proficiency in both their first language (L1) and L2. Acquisition from birth typically occurs through unconscious input processing, and imitation and repetition-based output by the child. In contrast, schooling requires conscious effort and often depends on the child's L1 knowledge, which can be a hindrance. Therefore, acquisition from birth is a more effective approach to bilingualism. Whether schooling complements or surpasses early exposure at home in language acquisition remains unclear, as the variables surrounding each child are diverse and numerous.

It is important to note the age factor and its relation to schooling. In our study, formal education (preschool, primary, and secondary instruction) influenced the participants' children, leading to higher fluency. Despite age being a low predictor, it is evident that older age correlates with higher fluency in the target language, influenced by formal schooling. There may have been a bias among participants who perceived older children as more fluent than younger ones, without considering normal developmental processes and the impact of formal schooling that older children have experienced.

Although our research has not proven the following hypothesis, we strongly recommend that future studies investigate it. We hypothesize a positive correlation between a language teacher's professional language and the language they use in parenting. We propose that bilingual individuals, recognizing the value of multilingualism, might be more inclined to communicate with their children in the language they teach. Further research is required to explore this potential relationship. A language teacher, knowledgeable in the pedagogy of language teaching, can potentially accelerate their children's acquisition of a second language (L2). This acceleration can occur not just by speaking to them in the target language, but also through applying teaching techniques. However, we found that most participants in our study did not practice this, possibly due to shyness or fear of criticism from relatives, friends, or bystanders when speaking English to their children in public. They might have preferred to avoid using the foreign language in public, fearing others might mistakenly believe it would confuse their children and hinder their normal first language (L1) acquisition. This phenomenon, known as the 'tall poppy syndrome,' is a likely hindrance that may have affected our study's participants.

One limitation of this study is the sample size. A small number of observations can impact the robustness of the results and the model's generalizability to a larger population. In this case, a small sample size (n=49) may lead to imprecise or biased estimates, affecting the reliability of the conclusions. Therefore, future studies should consider expanding the participant pool. Another limitation is that the model was constructed based on three independent variables and one dependent variable. Future research should develop a psychometric scale to enhance the validity and reliability of these measures and those proposed in prospective studies.

CONCLUSION

Early exposure to English plays a crucial role in the fluent development of a second language, especially when the parents are English teachers. For these children, communication within the family environment, whether in the second language or their native tongue, might be a key

predictor of bilingualism. These children possess an advantage that is not fully utilized by all families: the opportunity to use English for communication at home. To date, the One-Person-One-Language (OPOL) strategy has proven effective in fostering bilingualism from early childhood. Our findings indicate that the intentions and strategies employed by the parent-teachers in our study have a positive impact on successful bilingual development. However, it should be acknowledged that the school also contributes, albeit small, yet significantly, to this process. Therefore, establishing an immersive English-speaking environment from birth can substantially influence a child's language development.

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