To what extent does prior language experience affect students' learning of a foreign language? A comparison of "EAL" and monolingual learners in school classrooms.

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MSc in Applied Linguistics and Second Language Acquisition, 2024

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Abstract

The term EAL (English as an Additional Language) is used in the UK education system to refer to all students who come from home environments where the dominant language spoken is not English. This encompasses students who have newly arrived in the UK and may speak almost no English at all, to students who were born in the UK and are fluent speakers of English. The number of EAL students has been steadily increasing over the past three decades, with a rise from 7.6% of the school population in 1997 to 20.8% in 2024. This research project aims to explore how prior language experience affects EAL students in the Spanish classroom, and how their learning differs to their monolingual peers. Data for this project was collected via a mixed methods approach, with qualitative data gathered from a language background questionnaire and interviews, and quantitative data from a grammaticality judgement task and vocabulary knowledge task. Findings indicated that while there was no statistically significant difference between EAL and monolingual student's Spanish proficiency, there were significant differences within the EAL group. A positive relationship was found between the typological proximity of a student's heritage language to Spanish, and their overall Spanish proficiency. The implications of this finding are discussed on a classroom, school, and national level for teachers and students alike.

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List of abbreviations

CUREC	Central University Research Ethics Committee
EAL	English as an Additional Language
EL1	English as a First Language
GCSE	General Certificate of Secondary Education
L1	First language
L2	Second language
L3	Third language
OFSTED	The Office for Standards in Education
SPSS	Statistical Package for Social Sciences

Chapter 1. Introduction

1.1. Background to the study

The foreign language classroom in the United Kingdom is in somewhat of a crisis, and it has been this way for some time now (Bowler, 2020). In 2004 a change in policy meant the number of students enrolled in language GCSEs [General Certificate of Secondary Education] fell dramatically (Ofsted, 2021). From an all-time high of around 75% of students studying a foreign language in 1997, figures from 2019 report a drop to just 40% (ibid). This is in stark contrast to the rest of Europe, where 91% of students learn at least one foreign language and 61% study two or more (Eurostat, 2023). Scholars have offered a broad range of theories to explain this discrepancy. Some posit that the dominance of English as a global language dissuades students in the UK from studying other languages (Della Chiesa et al., 2012; Taylor & Marsden, 2014), with English being the language of choice for 96.8% of students in Europe (Eurostat, 2023). Others suggest that the perceived difficulty of modern languages in comparison to other subjects (Vidal Rodeiro, 2017) may be a deterrent. Some point to other factors such as socio-economic inequalities (Henderson and Carruthers, 2021) and even gender norms (Parrish, 2021) acting as barriers to certain groups.

While the number of students learning another language in UK schools has been declining, the number of students who already speak another language when they enter UK schools has been on the rise. In 1997 the number of children who were reported to speak English as an additional language (hereafter referred to as EAL) was only 7.6% of the population (Strand et al., 2015). This number has increased significantly, reaching 20.8% of students in 2024. (Department for Education, 2024). While the specific term ‘EAL’ has only been in use since 2006 when it was coined by the National Pupil Database (Szymczyk et al., 2022), educational policy regarding this demographic has been in place since the 1960s. At this time EAL provision was predominantly focused on assimilating students into the monolingual English school environment as quickly as possible, with little support given (Costley, 2013).

Although EAL provision has improved significantly over the years, there are still flaws in the provision and distribution of resources and support. Many of these issues stem from the very definition of EAL, described as any student 'exposed to a language at home that is known or believed to be other than English' (Department for Education, 2020, page 4). The Department for Education seems to acknowledge the vagueness of this term itself, noting that 'it is not a measure of English language proficiency or a good proxy for recent immigration' (ibid). Scholars have also commented on the drawbacks of grouping together such a large group of students under one label. EAL encompasses students who have been born and raised in the UK and use English as their primary language of communication, and students newly arrived in the UK who may not speak any English at all (Strand et al., 2015). With such a wide range of needs, it is almost impossible for all of them to be met.

1.2. Rationale

As a modern languages teacher in the UK secondary education system myself, I have encountered a broad range of measures across different schools regarding provisions for EAL students. Even within the same school, the support available to students may differ according to the language(s) they speak. Some teachers have access to detailed plans outlining the students' English proficiency and how they are expected to progress, others are unaware students even speak another language at all. This is rarely the fault of the individual teacher and instead reflects a broader issue regarding how educators are trained in EAL teaching and learning. The annual survey for newly qualified teachers, last conducted in 2017, noted that teachers felt the two areas in which they were least prepared were in supporting students with special educational needs, and students with EAL (Ginnis et al., 2018).

In my own modern languages classroom, it was a key focus of mine to try and include and acknowledge all of the different languages spoken by my students. In my experience, students were often willing and eager to share their knowledge of other languages when prompted, and I frequently found students contributing who were not listed as EAL in the school system. The hugely varied prior language experience of the students in my classroom

led me to this research topic, hoping that exploring the links between EAL students' prior language experience and their proficiency in the Spanish classroom would enable teachers to better understand and provide support for this steadily growing percentage of the student population. Finally, I hope it might provide opportunities for students with English as their first language (hereafter EL1) to reflect on language learning in new and more nuanced ways.

Previous research is divided on the role that prior language experience has on subsequent language acquisition in an educational environment, with some showing a positive relationship (Crevecoeur et al., 2013; Dolas et al., 2021; Robinson et al., 2020) and others failing to find a clear advantage (Ke, 1998; Kiesier et al., 2022; Serratrice, 2009). Various factors have been shown to influence multilingual students' acquisition in the modern languages classroom, including the age of the students (Cenoz, 2003; Torregrossa et al., 2022), the amount of formal language instruction previously received (Carlise and Beeman, 2000; Park and Starr, 2015), and the degree of proficiency in each language (Cenoz, 2011). Many scholars focus on the specific transfer of linguistic knowledge between two particular languages (Chung et al., 2017; Ramirez et al., 2009) while others focus on more general metalinguistic awareness (Bialystock et al., 2003; Verhoeven, 2007; Woll, 2019). A frequent question that arose in relation to various aspects of language acquisition was the impact of the typological distance between the languages being learned, i.e. how linguistically similar or different they are, (Bardel and Falk, 2007; Flynn et al., 2004; Rothman, 2010; Schepens et al., 2013) and the similarities or differences in their typographies, i.e. how similar or different their writing systems are (Hayashi and Murphy 2012; Koda, 2005; Wang et al., 2003; Wang et al., 2006).

1.3. Dissertation outline

In order to explore the research background to these questions, a more in-depth exploration of the history of EAL policy in the UK, as well as abroad, will follow. The existing research into the impact of prior language experience on subsequent language acquisition will be

discussed and analysed in relation to the present study. I will outline the various instruments used in this study to collect data from participants including a language background questionnaire, a grammar task, and a vocabulary-based task. The findings from these will be evaluated in relation to the research questions above, and this paper will conclude with recommendations for teachers in the modern languages classroom to engage with EAL students' prior language experience in a more meaningful way.

Chapter 2. Literature Review: English as an Additional Language

2.1. Introduction

This chapter will discuss the ways in which various factors, such as regional variation amongst both students and schools, level of fluency, and heritage language spoken, affect the attainment of EAL students in the UK. It will also summarise the findings of several systematic reviews on the topic of EAL teaching and learning which explore how the educational context in the UK differs from the rest of the world.

2.2. Regional Variation

In the introduction to this paper the number of EAL students in the UK was reported as 20.8% of the school population, but it is important to remember that this represents the UK as a whole and numbers vary significantly in different regions. Perhaps unsurprisingly London has the largest percentage of students classified as EAL at 44%, with the smallest percentage of EAL students being found in the Northeast of England at just 8.3% (Clark, 2023).

A report from The Bell Foundation, a charity focused on language education, investigated the attainment of EAL students in the different regions of England. They found that most of

the variation was a result of the various languages and differing socio-economic backgrounds of the students rather than regional discrepancies in the quantity or quality of support provided. (Hutchinson, 2018). The exception to this was in the provision of additional support for students who arrive late to the UK, who typically require more intensive English instruction, with Northern regions 'lagging well behind' those in the South (ibid, page 8).

This is not to say the EAL population in the UK is entirely concentrated in the capital. Another report investigating the distribution of EAL students in the UK found that there were over five hundred schools in the Midlands and Northwest of England with over 50% of their student populations composed of EAL students (Strand et al., 2015). The authors note that it is important that EAL provision and support be tailored on a school-by-school basis as 'concentrations of EAL can be very specific to small local areas and schools, even if the total numbers are low in broader geographic area' (ibid, page 6). This discrepancy can be found in the city where the field work discussed in this study was conducted. While the Southeast of England reports 15.6% of its student population as EAL (Clark, 2023), Oxford itself reports a total of 33% (Oxford City Council, 2021), over double that of the region as a whole.

2.3. Level of English Fluency

In 2017 the Department for Education introduced a framework to measure EAL students' English proficiency across reading, writing, speaking, and listening. There are five stages which range from 'New to English', 'Early Acquisition', 'Developing Competence', 'Competent' and finally 'Fluent' (Demie, 2018). Despite this framework being introduced at a national level, schools throughout the UK use different measures based on research from various educational foundations and agencies which, although all follow the same five stages as outlined above, all use slightly different descriptors for these stages. Therefore, students may fall into different categories based on the assessment framework used in each school. This could be contributing in part to the regional differences discussed in the previous section, but more research into this is needed. Demie (2018) highlights the 'need for

moderation of the stages of EAL proficiency assessment between schools' (page 649) by specialist EAL teachers and professionals.

Across all schools, with 52% of students being monolingual English speakers, 29% of students were classed as 'Fluent' in English, 23.2% were classified as 'Competent', 23.3% as 'Developing Competence', 16.2% as 'Early Acquisition', and only 8.3% as 'New to English' (ibid, page 646). Attainment amongst students varied significantly based on their stage of fluency.

Based on the ages of the students involved in the present study, attainment will be explored in relation to GCSE data. GCSE exams are sat at the end of Year 11 when students are aged 15-16 and determine their subsequent work and study options. Many employers and educational institutions consider 5 GCSEs between grades A* to C as a minimum requirement (Department for Education, 2017). Recent GCSE data reveals that no students classified as 'New to English' received a grade of A*- C in English and Maths, however this jumped to 25% of students at the following stage. Similar jumps were found between 'Developing Competency' and 'Competent' at 47% and 68% respectively. Of those classified as 'Fluent', 76% achieved 5+ A*- C grades at GCSE (ibid, page 648). This was significantly higher than the average for monolingual English-only speakers at the time, which was 56%. Unfortunately, in recent years this has fallen yet further to 44.6% (Department for Education, 2024). Although there has been a slight drop amongst EAL students as well, even taking into account those with lower fluency levels, the overall percentage of EAL students achieving the new equivalent (as per changes made to the GCSE system in 2019 - Ofqual, 2017) of a grade 9-5 in both English and Maths is still 48.9% (Department for Education, 2024). This data indicates that when EAL students are given appropriate support in schools, they can match or even exceed their monolingual peers' grades, without even necessarily being classified as 'Fluent' in English.

It is important to note that age of arrival in the UK has a significant impact on the stage of fluency a student is able to reach by their GCSEs, with those arriving between the ages of 11-14 receiving significantly lower results than those who arrived before this (Strand et al.,

2015). Based on data such as this, Hutchinson (2018) makes the recommendation that as well as the EAL premium currently included in the national funding formula 'a late arrival premium is needed to boost support for children with EAL arriving in English schools late in the primary or secondary phase' (page 10).

2.4. Heritage Language Spoken

EAL status is often wrongly conflated with belonging to an ethnic minority group, and figures show that while 37% of students in the UK are from an ethnic minority background, just under 21% are classified as EAL (Department for Education, 2024). However, it is important to note that certain languages are linked to certain ethnic groups and for a myriad of different reasons this has an impact on EAL students' attainment. Of the nineteen different groups recognised in the census, the groups 'Any Other White Background' (making up 7.2% of the total population) and 'Black African' (making up 4.8% of the population) have the highest percentage of EAL students at nearly 70% each (ibid). The achievement gap for these two groups in comparison to monolingual English-only speakers is also particularly large (Strand et al., 2015).

In their report, Strand and colleagues use the framework of Progress 8 scores as 'an overall summary of achievement' (page 31) for students. Scores are calculated based on the sum of the eight best results of all GCSE exams taken by a student, for example 4Cs and 4Bs would equate to a score of 347 points (ibid). Within the 'Any Other White Background' group, speakers of Spanish, Italian, Albanian, and Russian held similar Best 8 scores to monolingual English-only speakers in English and Maths. For speakers of Polish, Turkish, and Portuguese there is a gap of 20 points, which increases to 50 points for Lithuanian, Romanian, and Latvian speakers, and increases further still to 120 points for Slovakian speakers (ibid, page 72).

It is interesting to note that in regard to scores in language GCSEs, speakers of Spanish, Italian, Russian, Polish, Turkish, and Portuguese all scored higher than both other EAL

students and monolingual English-only students. These languages are all offered at GCSE, whereas Lithuanian, Romanian, Latvian, and Slovakian are not (ibid). This is a clear disadvantage to the second group and may partly explain their lower Best 8 scores overall as the first group are able to benefit from taking their heritage language as a GCSE. Even without taking a GCSE in their heritage language, several of the languages in the first group are much typologically closer to the three main languages offered at GCSE in the UK, Spanish, French, and German. This effect will be explored in more depth later in this paper. There is also a clear link between the heritage language spoken by students and their level of English fluency with 54% of Lithuanian, 61% of Slovak, 77% of Romanian and 80% of Latvian speakers arriving in the UK between the ages of 11-14 (page 73) which as mentioned previously has a severe impact on attainment.

Within the 'Black African' group there were also significant differences among the different languages spoken. Yoruba and Igbo speakers consistently scored above monolingual English-only speakers in English and Maths. French and Swahili speakers scored around 25 points lower, Somali and Lingala speakers around 30 points lower, and Portuguese speakers 44 points below the mean for monolingual English-only speakers belonging to the same ethnic group (page 79). As with the 'White Other Group', those who speak a language offered in the UK at GCSE (French, Portuguese and Arabic in this case) perform better than their monolingual English-only peers in their language exams.

Strand and colleagues note that all of these differences in attainment are robust when controlled for various socio-economic student background variables, suggesting that 'first language can be an important additional piece of information when used in conjunction with ethnicity' in order to identify specific groups 'at risk of low attainment and poor progress' (page 11) and therefore provide better support. The wide variety of languages discussed here however highlight the difficulties in providing effective support to all EAL students.

Many reports on EAL teaching and learning focus on the United States, but UK scholars have argued that 'due to the considerable differences in the demographic, social, and educational infrastructure between the UK and US' it would be 'unwise to assume effective

interventions in the US would be equally effective in the UK' (Murphy and Unthiah, 2015, page 3). Examples of these interventions include using students' heritage language in the classroom, which is far more straightforward in the US where the vast majority of EAL students are Spanish speakers. In the UK 'there is far less consistency with respect to EAL children's L1 [first language] background which makes it more challenging to explicitly use the L1 in targeted interventions aimed at improving children's English language and/or literacy' (ibid, page 44).

2.5. A Comparison of EAL Provision in the UK and Abroad

Despite the significant numbers of EAL students in the UK, until recently research has been focused largely on the North American context. A review of twenty-nine studies on EAL interventions and literacy development analysed by Murphy and Unthiah (2015) found only one study conducted in the UK, with the rest in the US and Canada. Oxley and De Cat conducted a similar review several years later (2019) and again found only one UK based study out of the total twenty-six. Of these studies, fifteen focused on student populations where the majority heritage language was Spanish, with three studies conducted where Spanish was the only heritage language spoken (page 269). This brings to light the difficulty discussed previously of applying research findings from the US to a UK educational context which has a far less homogenous EAL population.

As well as general literacy skills, eleven studies focused on vocabulary development in particular, including the only UK based study which investigated the use of non-verbal cues (Marshall and Hobsbaum, 2015). The study was conducted with 4–5-year-olds, and Oxley and De Cat highlight the fact that the majority of studies included in the review (17 of 26) were focused on this age group. They note that although it is important to work with young learners 'so that EAL children do not fall further behind their monolingual peers, the lack of interventions for older children is problematic, especially for children arriving in the country post primary school' (page 284).

Another facet of EAL provision explored in Oxley and De Cat's review is that of continued professional development. Four studies investigated how educators may benefit from instruction in specific teaching strategies to use with EAL learners, including content specific learning (Cervetti et al., 2015; Maerten-Riveraet al., 2016) and academic writing (Matuchniak et al., 2013; Olson et al., 2017). Small to medium effect sizes were found for all four studies, with student outcomes increasing steadily over a three-year period as teachers implemented the new strategies. Oxley and De Cat note the importance of continued and consistent training for teachers in order to allow them to 'adjust their practice and gain familiarity with the curriculum' (page 283). A report from Hutchinson (2018) echoes the need for more training in this area after finding that continued professional development for teachers of EAL children was inconsistent in the United Kingdom and not accessible on a national scale. The report calls on the government to 'develop new policies to generate and maintain EAL expertise in schools' and makes references to the successful implementation of systems in the US, Canada, and New Zealand which 'provide useful options to consider including the establishment of specialist roles, programmes for staff development and graduate level specialist qualifications (page 10).

Finally, a more recent review (Murphy, 2021) focused on the differences between immersion, bilingual, and withdrawal programmes for EAL students. The review looked at fifteen studies, with six of these being conducted in the UK. This indicates a positive increase in the amount of research being conducted in this area. It is also encouraging to note that seven of the fifteen studies investigated secondary school students, demonstrating an increased focus in this area as well. Overall findings indicated that immersion programmes failed to provide students with adequate levels of support and the most effective approach was a withdrawal programme followed by a transition period into the mainstream classroom (page 48). This was found to be the case both in the UK and abroad.

2.6. Conclusion

The key findings from this overview of English as an Additional Language education in the UK can be summarised as follows. The percentage of EAL students in the UK differs significantly from region to region, with almost half (44%) of the total EAL population concentrated in London. There are often schools with very high EAL populations in otherwise lower populated regions however, often in urban centres.

There is also significant variation in the English proficiency of the EAL population in the UK, however the largest group are those classed as 'Fluent'. This group significantly outperforms EAL students with lower levels of English proficiency, but also outperforms monolingual English students as well. Attainment also varies according to the heritage language spoken by students, often strongly influenced by the availability of said language as a GCSE option.

All UK scholars agree that more research is needed to understand these differences better, with the vast majority of EAL research being conducted in the US and Canada. While some of the findings of this research are applicable in the UK context, studies in the US particularly have far more homogenous EAL populations in terms of heritage language spoken, meaning some approaches are not suitable in the far more diverse UK context.

Chapter 3. Literature Review: Multilingual Language Acquisition

3.1. Introduction

This chapter will provide a review of the literature that has guided the research process and provided the context for the current study. There are several key areas in particular that will be explored; the similarities and differences between L2 [second language] and L3 [third language] acquisition, the role of metalinguistic awareness in language learning, the process of language transfer, and the role of typological and typographic distance in L2 and L3 acquisition.

3.2. Similarities and Differences between Second Language and Third Language Acquisition

The main focus of the research questions for the present study were the differences between how monolingual and multilingual children approach learning a new language in the classroom. Therefore, it was essential to understand the fundamental differences between second language [hereafter L2] and third language [hereafter L3] acquisition. Cenoz (2003) notes that although the acquisition of any additional language is similar to an extent, third language learners are different to second language learners in that they 'have more language experience at their disposal as second language learners, are influenced by the general effects of bilingualism on cognition and have access to two linguistic systems when acquiring a third language' (page 71). Another difference noted by the author is the variety of ways in which the three languages may have been acquired. A bilingual speaker either acquires their two languages consecutively or simultaneously, whereas a multilingual speaker may have acquired their languages in a whole host of different combinations which will have affected the learning process.

A later work by Cenoz (2011) expands further upon these differences and argues that they generally provide an advantage for bilingual speakers over monolingual speakers in subsequent language acquisition. The author credits the 'broader linguistic repertoire at their disposal' (page 76) but also acknowledges that this is mediated both by the speakers' language proficiency, which this paper has discussed briefly already, and typological distance between each of the languages, which will be discussed later in this review. The other factors Cenoz acknowledges are the 'wider range of learning strategies' available (ibid) and 'higher level of metalinguistic awareness' (page 75). The author argues that this metalinguistic awareness can be developed 'based on their knowledge and use of two or more languages' and as such 'what is learned in one language can be reinforced in the other languages' (ibid, page 83). A more in-depth exploration of metalinguistic awareness follows in the next section of this review.

3.3. Metalinguistic Awareness

Metalinguistic awareness is understood to encompass a range of different linguistic skills including morphological, phonological, syntactic, and semantic awareness (Brown et al., 2023; Reder et al., 2013). Others have described it as the ability to see language itself as an 'object' (Tunmer and Herriman, 1984) which therefore allows the speaker to 'play with or manipulate language' (Jessner, 2006, page 42). Smith (2020) notes that this type of linguistic awareness develops after children have acquired the 'essential structural properties' of their mother tongue(s) and that it has 'a separate cognitive status quite distinct from the knowledge that underlies the language ability that is acquired from an early age' (page 185). Many scholars have explored the different ways in which metalinguistic awareness develops in multilingual speakers and how this affects the process of language acquisition.

One such study conducted by Dolas and colleagues (2021) investigated whether metalinguistic awareness differed between monolingual, bilingual, and multilingual students. All students had Turkish as their L1 with both bilingual and multilingual students learning English as their L2 in an immersive educational environment. Multilingual learners studied a variety of L3s including German, Spanish, French, and Latin. The study found that multilingual learners outperformed both bilingual and monolingual learners in regard to their metalinguistic awareness, working memory, and L1 lexicon size. The authors posit this is a result of the 'complex and interrelated structure of two or more linguistic systems' (page 10) they have developed. It is important to note that in this study, all of the multilingual speaker participants had acquired their languages sequentially. An interesting follow-up study could include an additional group of simultaneous bilinguals to explore this dimension as well.

A study by D'Angelo and Sorace (2022) addressed this question, comparing the differences between simultaneous and sequential acquisition among adult language learners. A total of forty-two English-German bilingual participants answered a language background questionnaire, with nineteen participants speaking a total of three languages and twenty-three

participants speaking four languages or more. The authors do not state what these other languages are, meaning it is not possible to take into consideration typological distance as a factor. Half of the participants learned German in a formal setting, either at school or university, and the other half learned in an informal setting, either speaking German at home with family or living in a German speaking country.

While the previous study measured metalinguistic awareness as a whole, the study by D'Angelo and Sorace differentiated between the ability to identify, correct, and explain grammatical errors. The authors found that the group who were able to identify, correct, and then explain the errors found in the texts 'significantly outperformed' the group that was only able to identify errors, indicating 'a certain level of explicitness of the grammatical knowledge of a second language must be reached to record a positive effect on third or additional language learning performance' (page 3560).

Despite highlighting the importance of explicit grammar knowledge which would presumably come from explicit grammar instruction, they did not find a statistically significant difference between the learners who had acquired their language in a formal setting and those who learned in an informal setting. The authors also did not find a difference between those who spoke three languages and those who spoke four or more. They argue that the specifics of the additional languages acquired are not important as 'the content of metalinguistic knowledge must be broader than any that applies to the knowledge of a specific linguistic structure' (ibid). This may explain their decision not to explore the other languages spoken by the participants in more depth as mentioned before.

Other scholars have argued that the specific characteristics of a language do have an impact on learners' ability to develop metalinguistic awareness. A study by Huang (2016) compared the metalinguistic awareness of two simultaneous bilingual groups. One group spoke Mandarin and English, another spoke Mandarin and Southern Min, a local regional dialect. Both groups were learning Japanese as their L3 and were still in the early stages of acquisition. The study found that students performed better when their L2 and L3 had a

similar or shared grammatical feature, but only when said feature is consistently applied in the L2.

The author provides an example by comparing the identification and correction of past tense inflectional suffix errors and present tense inflectional suffix errors. Mandarin-English students outperformed the Mandarin-Southern Min group when it came to past tense inflectional suffix errors as both English and Japanese share this feature (the *-ed* and *-mashita* suffix respectively), whereas it does not exist in either Mandarin or Southern Min. However, the same was not found when it came for students to identify and correct present tense inflectional errors. The authors posit that this may be because the *-s* suffix in English is applied only with a third singular person, whereas the *-masu* suffix in Japanese is applied in all situations. This inconsistency makes it harder to master and therefore harder to apply in additional languages.

Shared linguistic features were also shown to be an important factor for the successful development of metalinguistic awareness in a new language in a study conducted by Woll (2018). In this case, the languages investigated were far more typologically similar (L1 French, L2 English, and L3 German). Participants had been studying their L2 for around ten years, with their L3 being newly acquired. The author investigated not only levels of metalinguistic awareness via a think-aloud translation task, but also whether this metalinguistic awareness had a positive impact on language transfer. A strong correlation between the two was found, with the author noting that while the typological proximity of the languages meant some transfer was guaranteed to occur 'the deeper the analysis of the items themselves or of co-occurring words and structures in the sentences, the better the participants managed to come to the right conclusion' (page 179). While metalinguistic awareness has been shown to play an important role in language acquisition regardless of language, language transfer can play an important role in the development of both, and thus will be explored in more depth subsequently.

3.4. Language Transfer and Typological Distance

This section combines two areas of research because of how closely intertwined they are in the processes of language learning. There has been considerable debate on the role language transfer plays in the acquisition of multiple languages. The process of language transfer itself is described as 'the influence resulting from the similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired' (Odlin, 1989, page 27). While some scholars believe that a learners' L1 has the strongest influence on the acquisition of additional languages (Håkansson et al., 2002; Schwartz and Sprouse, 1996), others believe that in multilingual learners it is the L2 that has the greatest impact on L3 acquisition and beyond (Bardel and Falk, 2007). Others still state that both the L1 and L2 play a role, but this is determined by the typological distances of the various languages (Flynn et al., 2004; Leung, 2005). The ways in which one measures the typological distance between two languages is also highly contested, but scholars have highlighted several key dimensions to take into account including the writing system and script, the degree of shared lexical roots, tonality, orthographic depth, and morphosyntactic structures (Lee, 2022; Ziegler et al., 2023).

A study by Chung and colleagues (2017) investigated how children with English as an L1 acquired French as an L2 or L3 and to what extent the typological similarities of the two languages impacted acquisition. The study included one hundred and fifty-two children who attended a French immersion school in Canada, with ninety-three speaking only English at home and fifty-nine speaking both English and an additional language. These included some which are typologically closer to both English and French such as Spanish and Romanian and some which are more distant such as Korean and Farsi. The potential impacts of these additional languages are not explored in this work and would make for an interesting follow-up study.

The children were tested on a variety of factors including phonological awareness and processing, vocabulary knowledge, word reading, and lexical orthographic processing. A key finding from the study was that French orthographic processing had a significant impact on English orthographic processing, but English did not have a significant impact on French.

They posit that this could be due to the inconsistencies between the two orthographies, with English being more likely to deviate from letter-sound correspondences. This means children 'may need to rely on orthographic processing skills both within and across languages to spell English words' whereas French is more consistent meaning 'it may be sufficient to draw from French orthographic processing skill to spell French words' (page 305). Another key finding from the study is that this transfer occurs on both a metalinguistic level, such as recognising similar letter combinations in the two languages, and some occurs on a more "mechanical" level. This includes the physical process of writing the same letters in the shared Roman alphabet of the two languages. A similar study of older learners with more advanced skills in these areas would be interesting to explore beyond the correlation found in this study and investigate the causality between orthographic processing, word reading, and spelling development.

A study by Ramirez and colleagues (2009) also investigated transfer between two languages with a shared alphabet, but this time compared a language with a deep orthography (English) and a language with a shallow orthography (Spanish). How 'deep' or 'shallow' an orthography is depends on the transparency of grapheme and phoneme correspondence (page 341). Unlike in the previous study, all participants in this research project spoke Spanish and English only. However, all participants in the previous study started acquiring French sequentially as their L2 or L3 at the same time (the start of Grade 1), whereas participants in this study included both simultaneous and sequential bilinguals across Grade 4 and Grade 7. Some participants had been speaking English for only two years, while some had been speaking it for up to fourteen years, i.e. almost all of their lives. This difference in language experience was found to have some degree of impact on the findings, but the authors were unable to state to what extent prior language experience played a role overall. They suggest a follow-up study in the future which could investigate this further.

Despite these differences, the authors found some clear patterns in the L2 acquisition process across all participants. They were tested on morphological awareness, vocabulary knowledge, and word reading in both English and Spanish. The results indicated that 'Spanish morphological awareness remained a significant predictor of English word reading

after controlling for English vocabulary' and also after accounting for cognates and pseudowords included in the tests (page 352). They posit that this is a result of an 'understanding of common morphological principles across the two languages' (ibid) despite their other typological differences.

It could even be argued that these typological differences are an advantage rather than a hindrance in the process of L2 acquisition. The authors explain that because of the deeper orthography of Spanish, i.e. the strong grapheme to phoneme correspondence, participants 'develop a heightened sensitivity to morphemes in Spanish (...) and this sensitivity contributes to English reading over and above English morphological awareness' (ibid). Therefore, they conclude that language knowledge developed in the L1 is just as important for successful L2 acquisition as language knowledge developed in the L2.

Perhaps surprisingly, various studies (Cisero and Royer, 1995; Durgunoglu et al., 2003; Wang et al., 2006) have also found that this type of language transfer can occur even between non-alphabetic and alphabetic languages. One such study was conducted by Gottardo and colleagues (2001) with speakers of L1 Cantonese and L2 English. As with the study conducted by Ramirez and colleagues previously discussed in this paper, the participants varied significantly in both age (between Grade 1 and Grade 8) and language experience (with some having spoken English since birth and some for only a matter of months). Nevertheless, similar patterns were found across participants, although to different extents depending on their overall English proficiency.

The main focus of the study was phonological processing, with participants being tested on rhyme detection, phoneme detection, and phoneme deletion in English, and rhyme detection and tone detection in Cantonese. The authors found a strong correlation between Cantonese rhyme detection and overall English phonological processing, suggesting 'an underlying process that is not specific to the child's L1 phonology but that is related to the child's ability to reflect on all phonology to which he or she has a minimum level of exposure' (page 539). They highlight the importance of developing skills in the learners' L1 in order to successfully acquire these same skills in their L2, even across languages with different orthographies.

Another key difference between participants in the study conducted by Gottardo and colleagues was the amount of formal instruction they had received in both their L1 and L2. This has been found to be an important factor in other studies as well. Park and Starr (2015) investigated the impact of formal instruction on simultaneous bilinguals when acquiring an additional language in a university setting. All participants had English as their L2 with a range of L1s including Cantonese, Malaya, Mandarin, Indonesian, and Tamil. Of the one hundred and eight total participants, seventy-seven spoke only two languages which they had acquired in childhood as simultaneous bilinguals. The remaining thirty-one were also simultaneous bilinguals but had experience of formal language learning at school as well with a variety of L3s including Cantonese, French, German, Indonesian, Japanese, Malay, Mandarin, and Thai. Both groups were given a grammatically judgement task in Korean, they had all attended the same introductory university class for two months at the time of the study.

The results indicated a clear advantage for those who already had experience of language learning in a formal educational setting. This was particularly clear when it came to the learning of novel structures. The group learning Korean as their L4 found sentences including grammatical features which are not present in any of their previously acquired languages easier to analyse than the group with no formal language learning experience. The interesting finding from this study in light of the previous research discussed is that there was no benefit for the students who had studied Japanese, a language very typologically close to Korean, over the students who had studied French or German for example. The authors argue, similarly to Woll (2018), that general non-language specific metalinguistic knowledge is the key to successful language learning.

A particularly interesting study by Hayashi and Murphy (2012) compared the effect of formal instruction on bilingual speakers of the same two languages but in different countries. One group of students lived in Japan and spoke Japanese as their L1 while learning English as their L2 (ESL) in an immersive bilingual educational setting. The other group lived in the United Kingdom and spoke English as their L1 with Japanese spoken as their L2 as a

heritage language (JHL) at home. Students were assessed on their morphological awareness in both languages, with a positive bidirectional transfer found amongst the ESL group but not the JHL group. The scholars note that although previous research may have attributed this solely to the more complex morphological structures found in Japanese, other factors may have played a significant role.

Firstly, the ESL group had a higher proficiency in Japanese than the JHL group as it was their L1, and they encountered it far more frequently. The authors therefore conclude that 'morphological transfer from the more complex morphological system requires certain degrees of proficiency in that language' (page 62). However, there was no evidence of transfer from English to Japanese amongst the JHL group despite their high proficiency in English, indicating competence is not the only factor at play. The authors discuss the different educational approaches the two countries take to language learning, with Japan favouring a far more immersive model for L2 learning. They also highlight the fact that students spend far longer on explicit grammar instruction in their L1 as well which is covered in far less depth in the United Kingdom. The authors conclude therefore that 'the foundation of L1 academic proficiency at the start of schooling in the L2 may help maintain and continue developing L1 word-specific knowledge, while at the same time developing L2 morphological (and other aspects of vocabulary) knowledge' as well (page 64).

3.5. Conclusion

This literature review has sought to provide a summary of some of the existing scholarship which informed the research goals of the present study. The similarities and differences between L2 and L3 acquisition were outlined, with the general consensus being that bilingual learners have an advantage over monolingual learners as they are able to draw on pre-existing language learning knowledge as well as more developed metalinguistic awareness. This type of linguistic awareness was described as being an amalgamation of several different linguistic abilities, allowing learners to analyse and draw links between various different languages. The transfer of linguistic knowledge across languages was further

analysed, in regard to both shared and differing orthographies. Some researchers argued that the typological distance between languages, or how many linguistic features they share, is important for language learning while others argue this distance does not have an impact.

All of these hypotheses were explored with a range of different learners in different educational contexts, although unfortunately no relevant studies were found that matched both the exact age range and educational setting of the current work. Nevertheless, all of the studies provided important context for the variety of different research focuses of the current paper. The following chapter will outline the methodologies used in this paper to build on previous scholarship in the field.

Chapter 4. Research methods

4.1. Research questions

The primary aim of this research project was to investigate the different ways in which monolingual (EL1) and multilingual (EAL) students learn Spanish in the classroom, and if the various heritage languages spoken by EAL students have an impact on their Spanish proficiency. Based on these aims and previous research conducted in the field, the following research questions were devised.

1. To what extent, if at all, do EAL and EL1 students differ in terms of their Spanish proficiency?
2. To what extent, if at all, do EAL students differ amongst themselves in terms of their Spanish proficiency?
3. Can any such differences be accounted for in relation to:
    - the nature and extent of their prior language experience, including literacy?
    - the typological distance between their heritage language(s) and Spanish?

- the typographic distance between their heritage language(s) and Spanish?

4. To what extent, if at all, do EAL students report drawing on their prior language experience during Spanish classes, and how, if at all, does this differ from EL1 students?

The different ways in which answering these research questions were approached are detailed in the following sections.

4.2. Research Design

A mixed methods approach was chosen to provide the quantitative data necessary to compare students' language proficiency, and the qualitative data necessary to analyse this in more depth. This decision was influenced by scholarship such as Andrews (2013) and Oxley and De Cat (2021) who assert that 'qualitative evaluation should complement quantitative evaluation, so that positive impacts (…) that cannot be detected through significance tests are not missed out' (ibid, page 284). Data was collected via four different methods, a language background questionnaire, a grammaticality judgement task, a vocabulary knowledge task, and in-person interviews. All of these will be discussed in more depth later in this section.

4.3. Participant Selection

After approval for the project had been obtained from the CUREC (see Appendix A) a total of five secondary state schools located in Oxfordshire were approached to take part in this study. These schools were chosen as a convenience sample, as they were geographically close to the university department and thus able to be visited for data collection given the various time and resource constraints of the project. After contacting the headteachers of the schools via email (see Appendix B), two schools agreed to participate with the full support of the respective language departments. All phases of data collection were partially constrained by the availability and timetabling of the schools who agreed to take part. This meant that

although the data collection was cross-sectional in design, it was actually spread out over a block of around a month as the half-term holidays fell in the middle of the research period. Non-probability sampling was also adopted due to timetable constraints as only a certain number of students fit the inclusion criteria. This will be discussed further in the 'Participants' section.

A further constraint on sampling was obtaining parental approval. Information on the project was sent to all parents via email through the schools own system (see Appendix C). Once parental permission had been obtained students were given a simplified age-appropriate version of the information sheet in order to give their assent to participate as well (see Appendix D). Separate information sheets were sent to parents to obtain permission for student participation in the follow-up interviews (see Appendix E). Students then received another assent form specific to the interviews to sign as well (see Appendix F). Students were also given the opportunity to withdraw from the study after having previously assented, and this was the case for three participants. Data was collected via paper forms which were then digitised and anonymised, with the paper copies being securely destroyed after a period of three years as per university guidelines.

4.4. Participants

A total of two hundred and four students across two state secondary schools in Oxfordshire were approached to take part in the project. All students were currently in Year 9, aged between 13-14 years old and currently studying Spanish. Students at School A were divided into two streams, those who had been studying Spanish since the beginning of Year 7 (a total of nearly three years at the time of the study) and those who had started studying Spanish at the beginning of that academic year. Students who were new to Spanish were excluded from the present study. This brought the total to one hundred and twenty-nine students. Of these students, a total of five spoke Spanish at home, so they were excluded from the study. Of the remaining one hundred and twenty-four, one hundred and seven students obtained parental approval to participate in the main phase. Twenty-one of these students elected not to take

part, with three students withdrawing from the study part way through as previously mentioned. This brought the total number of participants to eighty-three. There was no detectable systematicity or bias in the non-take up rate with a mix of both male and female and EL1 and EAL students choosing not to take part.

Unfortunately, this number was not distributed equally across the two schools, with fifty-two students from School A and thirty-one students from School B. Although the overall class sizes for Modern Languages at School B were slightly smaller to begin with (between seventeen and nineteen students as opposed to twenty to twenty-five), I believe a larger number of students from School B may have chosen not to take part because they felt less familiar with the research project. Piloting for the project was conducted at School A meaning students may have already heard about the project from their peers or teachers before the information sheets were sent out. This is only speculation however, and other unknown factors may have come into play.

Efforts were made to match the schools in terms of the student populations and overall attainment, however. School A has a total population of 985 with Progress 8 scores [a measurement of attainment that takes into account grades across eight core subjects – Strand et al., 2015] for students at the end of KS4 reported as 40.2. School B has a population of 1239 with Progress 8 scores for students at the end of KS4 reported as 41.2. Both of these are considered 'well below' the UK average of 46.3. (UK Government, 2023).

4.5. Piloting

As mentioned briefly above, piloting for the project was conducted at School A. The language background questionnaire was piloted with a German class, as this part of the data collection was not subject related. The grammar and vocabulary tasks were piloted with one of the six Spanish classes at the school. Ideally it would have been piloted with a larger group of students, but this would have reduced the number of students who were able to take part in the main phase of the project considerably.

The language background questionnaire went through only very minor changes in relation to the wording of several questions, for example the term 'caregiver' was replaced with 'parent or guardian' which students felt more familiar with. The grammar and vocabulary tasks both went through significant changes however, as they were deemed by almost all students to be too difficult. The second round of piloting was conducted with Year 8 Spanish students so as not to reduce the participant pool for the main phase, and with the hopes that if it was accessible to slightly younger learners, it would be possible for most Year 9 students to successfully engage with the material. These changes will be outlined in more detail in the following subchapters.

4.6. Measures

4.6.1. Language Background Questionnaire

The language background questionnaire was deemed to be an important part of the data collection process because of the broad spectrum of linguistic backgrounds and proficiencies covered by the term EAL, as previously discussed in this paper. Several of the studies mentioned in the above literature review cited the use of a language background questionnaire including D'Angelo and Sorace (2022), Hayashi and Murphy (2012), Park and Starr (2015), and Torregrossa et al. (2022). The questionnaire used in the present study was based on the one developed by Hessel and Murphy in their 2018 study, itself based on a similar questionnaire from a previous research project of the authors. This questionnaire was chosen in particular as the study was conducted in UK state schools and it was designed to compare EL1 and EAL students. While the participants were younger than those used in the present study, this was deemed more straightforward than simplifying a questionnaire originally intended for adult learners.

Due to the older age of the participants in the present study, Hessel and Murphy's original questionnaire was expanded from a total of thirteen questions to twenty-three questions. The

original questionnaire asked participants which language they spoke at home with their parents or guardians, brothers or sisters, and any other adults or children that lived at home with them. It also asked if they spoke languages other than English with children at school and in the wider community. Three options were given to answer the questions: 'Always/Mostly English', 'English and L1 equally', 'Mostly L1' (ibid, page 285-286). These questions were adapted slightly to ask participants in what languages they were spoken to by family and friends, and also what languages they used to speak to family and friends. This was changed to reflect the often unbalanced-bilingualism of EAL speakers in the UK, discussed in Hayashi and Murphy (2012), in which children may hear their heritage language more than they speak it themselves. Two more answer options were also added to provide slightly more nuanced feedback; 'Always English', 'Mostly English', 'About equally English and another language', 'Mostly another language', 'Always another language'.

As the original questionnaire was aimed at primary school children, it did not include any questions surrounding literacy. The questionnaire used in the present study asked participants if they could read or write in another language, with an answer scale ranging from 'Yes, fluently', 'Yes, a little bit', to 'No, not at all'. These were included as two separate questions to reflect the often imbalanced receptive and productive language skills of multilingual children, as discussed previously. Finally, students were asked how frequently they consumed media in another language including television and films, books, music, and social media. The answer scale ranged from 'Everyday', 'Sometimes', 'Rarely', to 'Never'. This more in-depth analysis of when and how participants engage with different languages was influenced by Cenoz (2011) who highlighted the importance of situation and context in understanding multilingual language use. The questionnaire can be seen in full in Appendix G.

4.6.2. Grammaticality Judgement Task

Grammaticality judgement tasks are often used by researchers to assess both language proficiency and metalinguistic knowledge, as shown by the variety of different studies

previously referenced in this paper which include a grammaticality judgement task (D'Angelo and Sorrace, 2022; Huang, 2016; Park and Starr, 2015; Reder et al., 2013; Serratrice et al., 2009; Torregrossa et al., 2022). Many of these tasks focused on just one aspect of grammatical awareness, but holistic reviews of the literature indicate that 'results concerning general aspects of [language] proficiency are more consistent than those in which very specific aspects of proficiency have been analysed' (Cenoz, 2003, page 82). This led to a fairly broad range of semantic and syntactic features being included in the first draft of the grammaticality judgement task developed for the present study, largely influenced by Lust and Blume's (2017) writing on the topic. The format was based on a task designed by Serratrice and colleagues (2009) for a study comparing grammaticality awareness in monolingual and bilingual children.

Students were given a list of twenty-five sentences in Spanish and asked to judge which of the following categories they belonged to:

- A sentence that makes sense, and the grammar is right.
- A sentence that makes sense, but the grammar is wrong.
- A sentence that doesn't make sense, but the grammar is right.
- A sentence that doesn't make sense, and the grammar is wrong.

They were also given the option to indicate 'I don't know' on the sheet. Example sentences of each category were provided in English:

- My dad likes baking cakes.
- My dad like baking cakes.
- The chair is climbing the tree.
- The chair is climbed the tree.

Students in the first round of piloting indicated that the Spanish sentences were too complex for them to easily understand, with large amounts of unknown vocabulary further confusing things. Students also gave feedback that the scale used to judge if the sentences were correct or incorrect was too complicated as well.

This led to a far more simplified second version of the task. The scale was changed to include only three options: 'Correct', 'Incorrect', or 'I don't know.' It was also decided that only syntactic awareness should be tested as semantic awareness is often deemed more complex for younger learners (Sepasdar and Rostampour, 2022; Wagovich et al., 2014). Ten key grammatical concepts were chosen for the task, with two examples of each given. This also reduced the overall length of the task to twenty items, as some students had commented that the task took too long. The grammatical concepts chosen were based on the end of chapter reviews from the textbook used by School A in Years 8 and 9, and then cross referenced with the textbook used by School B. They were as follows:

- Conjugating regular verbs in the present tense
- Conjugating regular verbs in the preterit tense
- Negation with regular verbs in the present tense
- Conjugating stem changing verbs in the present tense
- Conjugating reflexive verbs in the present tense
- Using possessive adjectives
- When to use Ser/Estar
- Using Comparatives
- Adjectival agreement (single/plural)
- Adjectival agreement (masculine/feminine)

The vocabulary used in the sentences was also cross referenced with the textbook to ensure it was as familiar as possible to students. Ten grammatically correct and ten grammatically incorrect sentences were then written and arranged at random for the task. A point was given for each correct answer, and an additional point was given for the correction of a grammatical error. A total of 30 points was therefore available, with 20 points for each sentence assigned to 'correct' and 'incorrect' and 10 points for each correction. No point was given for an incorrect answer, or if students had answered 'I don't know'. The second round of piloting indicated that this version of the task was much improved, as indicated by higher rates of completion and increased student scores. This was the version used in the main phase of the study. The first and second versions of the task can be found in Appendix H and I.

4.6.3. Vocabulary Knowledge Task

A vocabulary knowledge task is another often used measurement of language proficiency (Chung et al., 2017; Dolas et al., 2021; Gottardo et al., 2001; Hayashi and Murphy, 2012; Ramirez et al., 2009; Robinson et al., 2020; Wang et al., 2006). Researchers may create their own task or use and adapt existing tests according to their research focus. The LexTALE is a particularly popular test, having been found to be a reliable measure of both vocabulary knowledge and, to a slightly lesser extent, overall language proficiency in a variety of different educational contexts (Ferré and Brysbaert, 2016; Supasiraprapa; 2022; Tatsuya et al., 2020).

First developed by Lemhöfer and Broersma (2011) to test English proficiency, it has since been translated into Dutch, German, French, and Spanish (Izura et al., 2014). The vocabulary knowledge task used in the present study was based on the Spanish version of the LexTale developed by Izura and colleagues in 2014. The original test contained a total of ninety words, sixty real Spanish words and thirty non-words. Participants were instructed to tick all of the words they thought were real words, with a point given for each word correctly identified. A point was deducted however if they ticked one of the non-words. The non-words were based on real Spanish words with small morphological changes made and tested with both native and non-native Spanish speakers. In the first version of the vocabulary knowledge task developed for the present study, fifteen non-words were taken from the above list and thirty real Spanish words were randomly selected from the Pearson GCSE specification and then cross referenced with the equivalent AQA wordlist.

Feedback from the first round of piloting indicated that the majority of the words were unknown to the students, and that the task took too long. The changes made to produce the updated version of the vocabulary knowledge task were similar to those made to the grammaticality judgement task. First, the task was shortened to a total of thirty words, with ten non-words and twenty real words. The real words were chosen from the textbooks used by the students, with four words selected from the wordlists at the end of the five modules. A mix of adjectives (N=5), nouns (N=9) and verbs (N=6) were chosen. The words were then

randomly inserted into a table with the same scoring system and instructions as before. A total of 20 points were therefore available. The only change made based after the second round of piloting was indicating how many of the total words were non-words as students indicated this was still slightly confusing in the initial task instructions. Both versions of the task can be found in Appendix J and K.

4.7. Test battery

Students completed all three of the above tasks during one of their regularly scheduled Spanish lessons. After they had completed a 10-minute silent starter activity as part of their normal class routine, the researcher introduced the project and gave students the opportunity to ask questions. Assent forms were then distributed, and students who chose not to participate in the project were given an alternative task to do by their teachers.

Students completed the language background questionnaire first and were given a total of ten minutes to complete it. Once this had been handed in, they were given the grammaticality judgement task, with five minutes to complete the task. Finally, they were given the vocabulary knowledge task, with five minutes to complete this as well. All tasks were timed with an electronic timer visible on the interactive whiteboard at the front of the class. Although piloting indicated that around three minutes was enough for students to complete each task, the extra time was given in the hope that this would encourage students to take a little longer on the tasks and activate their explicit knowledge without relying solely on their immediate reactions and implicit knowledge. This explicit knowledge would then be discussed in the follow-up interviews.

Tasks were completed in silence with the researcher and class teacher circulating the room. In total the battery took around forty-five minutes with the forms being distributed and collected in. The final five minutes of the sixty-minute lesson were reserved for any final questions from students, and a discussion of the forthcoming interviews.

4.8. Typological Distance Scale

One of the biggest challenges that arose when designing the instruments for the present study was measuring the typological distance between the twenty-two different languages spoken by participants. An initial plan was to classify languages according to the language family they belonged to, explored in works such as Avgustinova (2007), Georgi and Xia (2010), and Olander (2022). However, this resulted in languages as different as French and Farsi being grouped together which did not seem an accurate depiction of similarity. An alternative was classifying the languages according to their writing systems (based in part on scholarship from Daniels, 2020), but this was also deemed too broad.

A study by Lupyan and Dale (2010) used the World Atlas of Language Structures Online, or WALS (Dryer and Haspelmath, 2013) as a tool to analyse linguistic complexity, and this served as the inspiration for the scale designed and used in the current paper. The WALS functions by providing a list of linguistic features present in a language relating to phonology, morphology, syntax, and lexicon. Spanish, for example, lists one hundred and fifty-five entries. After analysing these, ten key features were selected that were deemed central to the linguistic structure of Spanish. They can be found in Table 4.1 below:

Table 4.1 Linguistic features used to create typological distance scale

Language	Linguistic Feature	Explanation	Coding	Explanation
Spanish	Inflectional morphology	The addition of a morpheme at the end of a word to change what the word means in a sentence.	Strongly suffixing	Suffixes used more commonly than prefixes or affixes.
	Number of cases	A grammatical category determined by the syntactic or semantic function of a noun or pronoun.	Zero	This language has zero cases.
	Coding of negation	The grammatical structure indicating a term, phrase, or clause is negative or opposite.	SNegVo	Subject/Negation/Verb/Object
	Coding/Occurrence of plurality	The grammatical structure indicating a term, phrase, or clause is plural.	Plural suffix	A suffix is used to indicate the plural grammatical number of plural nouns.

	Polar question coding	The use of interrogative particles or interrogative verb morphology when forming questions.	No	This language does not use interrogative particles or interrogative verb morphology.
	Future tense	A tense expressing an action that has not yet happened or a state that does not yet exist.	Yes	This language uses a future tense.
	Past tense	A tense expressing an action that has happened or a state that previously existed.	Yes	This language uses a past tense.
	Perfective/Imperfective past tense	Used to refer to ongoing and habitual events in the past/Used to refer to single completed events in the past.	Yes	This language distinguishes between the perfective and imperfective past tense.
	Morphological imperative	A morphological feature indicating the imperative – a grammatical mood that forms a command or request.	Yes	This language uses the morphological imperative.
	Definite/Indefinite articles	Used to refer to identified or specified people or things, both singular and plural/Used to refer to a single, but not specific, person or thing.	Yes/Yes	This language uses both definite and indefinite articles.

In order to assess their typological distance to Spanish, each of the languages spoken by the participants was given 1 point (with 0.5 points given for the presence of definite and indefinite articles respectively) for each feature they shared with Spanish. English was also measured for comparative purposes. A maximum score of 10 points indicated a language with very high typological similarity to Spanish. See Table 4.2 for the scores given:

Table 4.2 Typological distance scores of participants' heritage languages

Language	Score
Albanian	8
Arabic	8.5
Azari	6.5
Bulgarian	7.5
Burmese	2
Cantonese	2.5
English	8
Farsi	6.5
French	9
Georgian	3
German	8
Greek (Modern)	7

Hebrew (Modern)	6
Italian	10
Jamaican Creole	7
Mandarin	4.5
Polish	6
Punjabi	4
Russian	7
Swedish	7
Tagalog	5
Turkish	7.5
Urdu	6

A more in-depth analysis of how the scores are calculated can be found in Appendix L. To test the validity of the scale, six post-graduate students of Applied Linguistics at the University of Oxford were approached. They were asked to rank the above languages from most to least similar to Spanish. For the languages at the top of the scale (languages with a score of 8-10) there was a correlation of 64% between the answers given and their actual rankings. At the middle of the scale (languages with a score of 4.5-7.5) there was a correlation of 65%, and at the bottom of the scale (languages with a score of 2-4) there was a correlation of 50%. I hypothesise that the slightly lower correlation at the bottom of the scale may be due to several languages with non-Roman scripts such as Arabic, Azari, Hebrew, Russian, and Urdu receiving low scores despite other shared grammatical features with Spanish. This is to be expected with the intentionally vague instructions given to the students in order to receive unbiased answers and does not in my opinion affect the validity of the scale.

In order to assess the typographic distance of the languages, Cook and Bassetti's (2005) work on writing systems was analysed. They distinguish between phonologically 'transparent' systems in which 'letter-to-sound and sound-to-letter correspondences are almost always one-to-one' (page 7) and phonologically 'opaque' systems in which 'the correspondences between sounds and letters are far from regular' (ibid). These are themselves distinct from 'meaning based' writing systems such as Cantonese, Mandarin, and Japanese Kanji (page 5). The most important conclusion however is that 'the distinction between phonologically transparent and non-transparent writing systems is not a matter of

either/or but a continuum' (page 8). The languages spoken by students were therefore placed into one of four categories as outlined by the authors: 'Morphemic', 'Consonantal', 'Syllabic', and 'Alphabetic' and then onto a scale from 1 to 4 of least to most transparent (page 9). The ranking was as follows:

Table 4.3 Typographic distances scores of participants' heritage languages

Language	Score
Albanian	4
Arabic	2
Azari	2
Bulgarian	4
Burmese	2
Cantonese	1
English	4
Farsi	4
French	4
Georgian	4
German	4
Greek (Modern)	4
Hebrew (Modern)	2
Italian	4
Jamaican Creole	4
Mandarin	1
Polish	4
Punjabi	3
Russian	4
Swedish	4
Tagalog	4
Turkish	3
Urdu	3

These two scales allowed for a more complete and in-depth understanding of the similarities and differences of the participants' heritage languages to Spanish than I have come across before in EAL studies of this kind.

4.9. Interviews

The final stage of data collection were the in-person interviews conducted with students after the main phase of the study. The interview questions were designed to gain further insight into how students had felt about the language tasks they had completed and into their thoughts on Spanish and language learning in general. At School A, interviews were conducted in two groups of three, with EAL and EL1 students separated. Although more students had been approached, fewer parents agreed for their child to participate in this part of the study, perhaps because of the more personal nature of the data collection.

Before the interview began, students were given a copy of the interview questions (see Appendix M) to look over for themselves, and copies of the language tasks to jog their memory as the interviews took place two weeks after the initial data collection. Due to a timetabling error on the part of School B, the interviews were conducted with all four students present (two EAL and two EL1 participants). In both cases, students were taken out of their normal lesson, and the interviews were conducted in the languages department office with only the researcher and participants present. The interviews were voice recorded but not filmed. The two interviews at School A lasted around eight minutes each, with the mixed group interview at School B lasting around twenty minutes.

After reflecting on the shorter interviews from the students at School A, a warm-up activity was devised in the hopes of making students feel more comfortable with the interview process and provide more in-depth responses. Before recording began, the students at School B were given a sheet of paper and encouraged to write as many greetings in different languages as they could think of. Students spent around five minutes completing this activity and seemed to enjoy it, chatting both with the interviewer and amongst themselves. This led to more in depth and extended answers in the interview. Because of the low number of participants who had agreed to take part in the interviews, it was not possible to repeat this process at School A again without speaking with the same students. The strengths and limitations of the interviews will be discussed further in section 5.7.

4.10. Conclusion

In order to successfully answer the research questions laid out at the beginning of the paper, various data collection methods were devised for the current research project. A language background questionnaire, based on the work of Hessel and Murphy (2018) was designed to gain a better understanding of the various languages spoken by the EAL participants. A grammaticality judgement task and vocabulary knowledge task were devised to assess both EL1 and EAL students' Spanish proficiency, based on previous research from Lust and Bloom (2018) and Izura and colleagues (2014). A typological and typographic distance scale were designed based on the work of Lupyan and Dale (2010) and Cook and Basetti (2005) respectively to analyse the similarities and differences between the heritage languages spoken by EAL participants and Spanish. Finally, a series of interview questions were written to provide a qualitative lens through which to view the quantitative data gathered.

Chapter 5. Findings

5.1. Introduction

The following section of this paper will outline the findings of the four measures in relation to the first three research questions. It will begin with a comparison of EL1 and EAL students' results before comparing the results within the EAL group. This will cover the findings from the grammaticality judgement and vocabulary knowledge tasks and the language background questionnaire. The results from the interviews conducted to address the final research question will be covered in the following discussion chapter.

5.2. Exploring the differences between EAL and EL1 students' Spanish proficiency

In order to compare EAL and EL1 students' Spanish proficiency, a grammaticality judgement task and vocabulary knowledge task were administered. The first task had a maximum score of 30 while the second task had a maximum score of 20. Assumptions were met to run an independent T-test, with normal distribution observed in both of the data sets. Both kurtosis and skewness were found to be between the standard values of -2 and 2 (Field, 2017).

An independent T-test was run on SPSS to compare the EAL (N=27) and EL1 (N=56) group results. This indicated that there was no statistically significant difference between the results of the EAL (M = 13.1, SD = 4.5) and EL1 groups (M = 13.1, SD = 4.8) on their grammaticality judgement scores, t (81) = 0.01, p = 0.1.

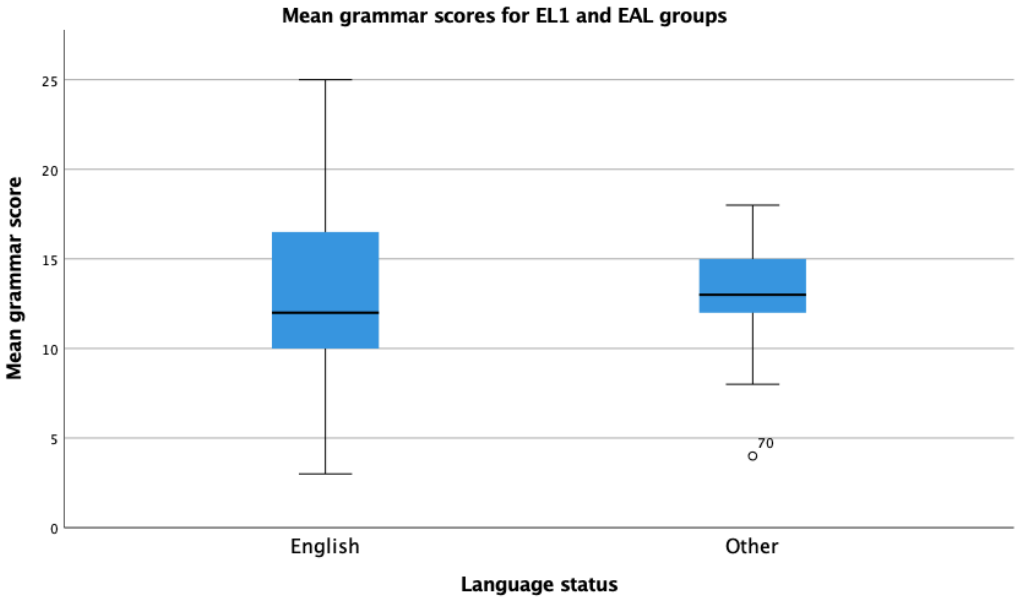


Figure 5.1 Boxplot depicting mean grammar scores for EL1 and EAL groups

There was also no statistically significant difference between the results of the EAL (M = 13.8, SD = 3.1) and EL1 (M = 14.1, SD = 2.7) groups on their vocabulary knowledge scores, t (81) = 0.5, p = 0.6.

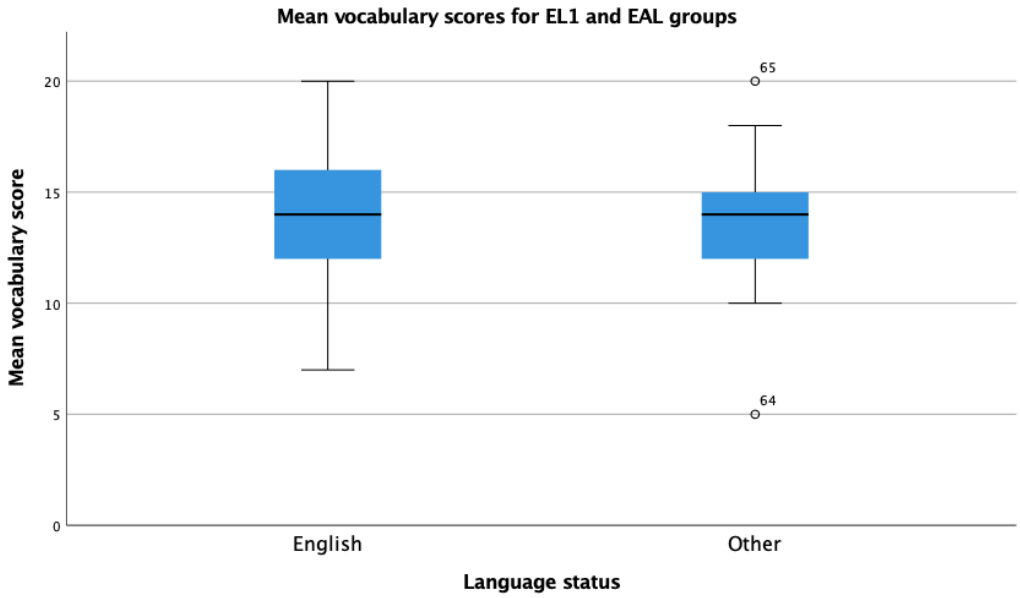


Figure 5.2 Boxplot depicting mean vocabulary scores for EL1 and EAL groups.

As there was no statistically significant difference found across either of the test scores, it can be inferred that EAL and EL1 students have similar Spanish proficiency in these areas.

5.3. Exploring the relationship between heritage language and EAL students' Spanish proficiency

In order to assess the differences within the EAL group, languages were divided amongst the same three categories as discussed in section 4.8, those with high typological proximity to Spanish (languages with a score of 8-10), medium proximity to Spanish (languages with a score of 4.7 to 7.5) and low proximity to Spanish (languages with a score of 2-4). Due to the small and unequal sample sizes of the groups (high N = 8, medium N = 14, low N = 5) a non-parametric test was deemed necessary (Field, 2017).

Table 5.1 Participants according to typological proximity to Spanish of heritage language spoken

Typological Proximity	Languages (with typological distance score)	Total number of participants
High	Italian (10) French (9) Arabic (8.5) Albanian/English/German (8)	8
Medium	Bulgarian/Turkish (7.5) Greek/Jamaican Creole/Russian/Swedish (7) Azari/Farsi (6.5) Hebrew/Polish/Urdu (6) Tagalog (5) Mandarin (4.5)	14
Low	Punjabi (4) Georgian (3) Cantonese (2.5) Burmese (2)	5

A Kruskal-Wallis test was performed on the combined scores from the grammaticality judgement task and vocabulary knowledge task of the three groups (high, medium, and low). The distances between the rank totals of 15.9 (high), 14.4 (medium), and 9.9 (low) were found to be non-significant H (2, n = 27) 1.87, p = .393. Upon further analysis of the data, three participants were identified as potential outliers. Two of these participants scored a total of 40 or above, with participant 1328 (a Tagalog speaker) scoring 41, and participant 1324 (a Cantonese speaker) scoring 40. At the other end of the scale, participant 137 (a Jamaican Creole speaker) scored a total of 11. All other participants scored between 15 and 35 across the two language proficiency tasks.

Having spoken to all three participants' class teachers it became apparent that these scores were in line with their general academic performance not just in Spanish but the rest of their school subjects as well. This could suggest the high scores of participants 1328 and 1324 are not entirely a product of high Spanish proficiency but overall academic ability. While looking through their task sheets it was also noted that participant 137 selected 'I don't know' for almost all of their answers, limiting their score significantly. It is unclear if this

was actually a result of uncertainty or a reluctance to participate fully in the project, although class teachers indicated a reluctance to participate in class generally was a common occurrence for this student. A decision was made therefore to exclude these outliers and run the test a second time, with the high group unchanged and the medium and low groups now at 12 and 4 participants respectively. The distances between the rank totals of 14.9 (high), 13.4 (medium), and 4.9 (low) were still found to be non-significant, but now with a p value of .52, H (2, n = 24) 5.925. Despite the non-significant results, there is a trend in the data that indicates the typological proximity of students' heritage language to Spanish plays a role in students' Spanish proficiency. With a larger sample size, it is possible that a significant result would have been found. It is interesting to note that while there is little difference between the high and medium groups, there is a significant drop for the low proximity group. This will be discussed in further detail subsequently.

5.4. Exploring the relationship between prior language experience and EAL students' Spanish proficiency

To investigate the relationship between prior language experience in relation to EAL students' Spanish proficiency, participants were asked to report the majority language they used at home as part of the language background questionnaire they filled out. Students were given two options, either English or another language. To compare these two groups an independent T-test was selected and, after test assumptions were met, run in order to compare their combined language proficiency scores. There was no statistical difference found between those with a majority language other than English spoken at home (M = 25.9, SD = 5.5) and those whose majority language at home was English (M = 27, SD = 3.4), with a p value of 0.57.

In order to investigate students' literacy in their heritage language they were asked to report in the language background questionnaire if they could read and write in a language other than English. They were given three options, 'No', 'Yes, a little', 'Yes, fluently'. A one-way ANOVA was therefore run to assess the difference between these groups, again using their

combined score from the two language tasks as the measure. No effect was found on Spanish proficiency in relation to their ability to write in their heritage language between the different groups: 'No' (M = 27.50, SD = 3.54), 'Little' (M = 26.46, SD = 3.50), and 'Fluently' (M = 26.22, SD = 6.26), $p = 0.94$.

In regard to reading, there were no students who reported not being able to read in their heritage language. Therefore as there were only two groups (those who could read 'a little' and those who could real 'fluently'), an independent T-test was run to assess the difference between them. As before, no effect on Spanish proficiency was found, between the two groups: 'Yes, a little' = (26.6, SD = 3.4), and 'Yes, fluently' = (26.2, SD = 6.3), $p = 0.85$. Therefore, there does not seem to be a positive effect for heritage language literacy on EAL students' proficiency in the Spanish classroom. However, it is important to note that all of the above measures were self-reported by students, potentially making them less reliable. Students may have interpreted the categories of 'A little' and 'Fluently' quite differently leading to inconsistent categorisation. The various languages spoken by the participants may also have had an impact on how and to what extent they classified themselves as literate. As a result, a more nuanced exploration of the typological and typographic distance between students' heritage language and Spanish will be explored in the following sections.

5.5. Exploring the relationship between typological proximity to Spanish and EAL students' Spanish proficiency

To explore the relationship between the typological distance of a student's heritage language to Spanish and their Spanish proficiency more closely, a Spearman's rank correlation coefficient test was run. The distance between the various languages was measured according to the scale discussed earlier in this paper. Points were given for key linguistic features present in Spanish, with a maximum score of 10 denoting a language with very close proximity to Spanish. The test was first run with the outliers discussed above included, in order to ascertain the impact their scores had on the results. A weak correlation was found ($r = 0.073$), which explained 0.5% of the variation. Upon running the test again with the three

outlying participants excluded, a moderate correlation was found ($r = 0.5$), which explained 24% of the variation. I believe this significant correlation, in contrast to the non-significant finding in the previous section, is a result of the Spearman's rank correlation coefficient test being able to take every language into account, whereas the Kruskal Wallace test is only able to provide less nuanced mean rank scores. Although they were carefully selected, the boundaries are essentially arbitrary with participants with similar scores in different categories, meaning some information is lost. Another Spearman's rank correlation coefficient test was run to assess the impact of typographic distance.

5.6. Exploring the relationship between typographic proximity to Spanish and EAL students' Spanish proficiency

As discussed previously, typographic distance was measured according to each language's writing system using a 4-point scale; Morphemic (1), Consonantal (2), Syllabic (3), Alphabetic (4). A Spearman's rank correlation coefficient test was run as before to investigate the new variable. A similar pattern to that found with typological distance was found with typographic distance as well. When running the test with the three outlying participants, a weak correlation ($r = 0.14$) was found, which explained 2% of the variation. Once the outliers had been excluded, a moderate correlation ($r = 0.5$) was found which explained 24% of the variation. Therefore, the findings provide some indication of a moderately positive relationship between students' Spanish proficiency and the typological and typographic distance of their heritage language with Spanish. The closer the heritage language's writing system to Spanish, the more likely it is that the student will have an increased proficiency in Spanish compared to other EAL students.

5.7. Conclusion

The findings from this research indicate that there is no statistically significant difference in the overall Spanish proficiency, as measured by the language tasks in this study, of EAL and

EL1 students. There was a statistically significant relationship found however between EAL students' heritage language and their Spanish proficiency. A Kruskal-Wallis test revealed a mean rank of 14.9 for languages with a high typological proximity to Spanish, compared to a mean rank of 4.9 for languages with a low typological proximity. The following section explores the implications of these findings and will also be structured according to the four central research questions.

Chapter 6. Discussion

6.1. Exploring the differences between EAL and EL1 students' Spanish proficiency

The findings from this study indicated that there was no statistically significant difference between the overall Spanish proficiency levels of EAL and EL1 students. This is a positive finding in light of previous research which suggested multilingual learners may struggle with certain areas of language acquisition such as vocabulary recognition (Hessel and Murphy, 2018), lexical development (Sheng et al., 2011) and syntactic development (Simard et al., 2011). This finding does not however reflect the data outlined at the beginning of this paper (Strand et al., 2015) which demonstrated that EAL students in the UK significantly outperform their monolingual counterparts in the modern languages classroom. It should be noted however that this data is taken from GCSE exam results meaning the students have an additional two years of language learning in comparison to the students in the present study. This lower language proficiency could explain the lack of a significant difference found between the two groups. If all students have a relatively low proficiency, differences between their abilities may have been too nuanced to be detected by the measures used. However, other studies (Finch et al., 2020) have found that EAL students in primary school, with up to eight years less language learning experience in comparison to the students in the present study, also outperform their monolingual peers in regard to modern languages. Therefore, formal language learning experience may not have been the reason for this finding. A more

in depth understanding of formal language learning experience amongst the EAL group may be able to explain this finding, and this will be discussed subsequently.

Regarding the scores for the individual language tasks, there was also no statistically significant difference between the two groups in regard to their syntactic knowledge as measured by the grammaticality judgement task. The almost identical scores (EAL M = 13.11, EL1 M = 13.13) on the grammaticality judgement task may also indicate that there is little to no difference between the two groups of students in terms of their metalinguistic awareness, as this task was designed to explore this aspect of language proficiency alongside syntactic knowledge. This is in contrast to previous findings (D'Angelo and Sorace, 2022; Dolas et al., 2021; Huang et al., 2016) which indicate that multilingual learners tend to have better metalinguistic awareness than their monolingual peers. As before, this finding may in part be due to the relatively low proficiency level of the students. The participants in the above studies were either adult learners with decades of experience, or fully balanced bilinguals. However, it is important to note that these studies included separate tasks for measuring syntactic and metalinguistic awareness, rather than the combined approach in the present study. The difficulties encountered with explicitly measuring metalinguistic awareness in the present study will be discussed further in the subsequent limitations section and may partially explain this null finding.

Although not statistically significant, there was a small difference (EAL M = 13.81, EL1 M = 14.13) favouring EL1 students in regard to the vocabulary knowledge task. This may be a reflection of the findings from previous studies (Bialystock et al., 2009; Mancilla et al., 2011; Pearson et al., 1993) which show that while multilingual children have a comparable vocabulary size overall to their monolingual peers, their vocabulary knowledge for each induvial language they speak is slightly smaller. Based on these findings, it may benefit EAL students to spend more time on vocabulary building and word recognition tasks to close this small gap with their EL1 peers. The lower scores for both groups in the grammaticality judgement task, although only marginal, highlight the importance of explicit grammar instruction in the modern languages classroom, as found in various other studies (Macaro and Masterman, 2006; Nazari, 2013; Satori, 2024). Error correction tasks such as the one found

in the present study are much more difficult when students lack the syntactic and metalinguistic knowledge necessary, and this is supported by other studies as well (Kieseier et al., 2022; Serratrice et al., 2009; Woll, 2019)

6.2. Exploring the relationship between heritage language and EAL students' Spanish proficiency

Overall Spanish proficiency differed amongst EAL students by a total of 20 points after controlling for outliers, with 15 points being the lowest score and 35 the highest. This variation in score reflects the findings from Strand and colleagues (2015) who noted significant differences in attainment amongst the EAL student population in the UK according to heritage language spoken. Although warning against conflating EAL status with an ethnic minority background in their report, Strand and colleagues acknowledge that several ethnic groups have particularly high numbers of EAL students, notably 'Any Other White Background' and 'Black African' (ibid).

Of the twenty-two languages spoken by students in this study, twelve belonged to nationalities categorised as 'Any White Other' by the UK census (Office for National Statistics, 2023). Speakers of Spanish, Italian, Albanian, and Russian were identified as the highest performing (Strand et al., 2015), which was also found to be the case in the present study with speakers of these languages (excluding Spanish) scoring between 25 and 30 points across the language proficiency tasks. It is interesting to note that Italian and Albanian both belonged to the high typological proximity group (with scores of 10 and 8 respectively) and speakers of these languages scored between 28 and 30 points on their overall language proficiency. Russian was part of the medium typological proximity group (with a score of 7) and the Russian speaker in this study scored slightly lower, with 25 points. Of course due to the extremely small sample size it is not possible to make any definite claims, but this provides some support for the hypothesis that typological distance of heritage language is a beneficial factor in developing students' Spanish proficiency.

Unfortunately there were no speakers of any languages associated with the 'Black African' group in the present study, so it is not possible to make the same comparison. Speakers of two languages, Yoruba and Igbo, were identified as the highest performing within this group, consistently outperforming monolingual English speakers as well (Strand et al., 2015). Using the typological distance scale from the present study, these languages scored 6 and 5 respectively, putting them both in the medium typological proximity group. Based on the data from the present study, these scores would not predict the high levels of attainment actually recorded in the report by Strand and colleagues (ibid). While it is worth noting that these scores are based on overall results rather than language learning specifically as is the case in the present study, it is also important to acknowledge that there are other key sociocultural-economic factors at play that may affect students' attainment in school. These are not measured in the present study and therefore their impact cannot be explored. A follow-up study could include a question related to this in the language background questionnaire, and this will be discussed further in the limitations section of this paper.

6.3. Exploring the relationship between prior language experience and EAL students' Spanish proficiency

Prior language experience was explored in this study via a self-report language background questionnaire which asked participants how often they spoke in their heritage language, who they spoke to in their heritage language, and in what contexts they did so. One of the questions asked about the language predominantly spoken in their home across all household members, either English or their heritage language. This has found to be an important factor in various studies investigating bilingual children's language proficiency (Oller and Eilers, 2002; Paradis 2009; Smithson et al., 2014). Thirteen participants answered that the majority language of their home was their heritage language, with the remaining nine answering English. There was a very slightly advantage found for those whose majority home language was English, although this was not statistically significant (M = 27, as opposed to M = 25.92).

Typological proximity to Spanish does not seem to be an influential factor here, with participants from high, medium, and low proximity languages present in both groups. It is possible that this question served as a proxy for English proficiency level, with students who speak their heritage language more often having a slightly lower proficiency level than their majority English speaking peers. This would be in line with data from Strand and colleagues report (2015) who noted a significant difference in attainment depending on students' fluency in English. It is not possible to be sure of this however without an explicit measure of English proficiency being included in the test battery, and this will be discussed further in the limitations section.

Another possible explanation for this slight difference could be linked to students' metalinguistic awareness. Having spoken to the class teachers at both schools, all of the participants were reported to have come from local primary schools before joining their current school, meaning the majority, if not all, of their education has been in English. Unfortunately it is not possible to be certain of this as the language background questionnaire did not include a question regarding place of birth or previous residencies, as this would fall under sensitive personal data (Information Commissioner's Office, 2023). This educational background will have led students to develop their metalinguistic awareness through an English lens, benefitting those whose majority language is English and disadvantaging those for whom it is not. The language in which students receive their formal language instruction has been shown to be an important factor in the development of metalinguistic awareness and in learners' ability to transfer this knowledge to new language contexts (Hayashi and Murphy, 2012). Therefore, I believe that encouraging students to explore their metalinguistic awareness in their heritage language should be an important goal for modern languages teachers. This does not mean that teachers need to be aware of the specific linguistic features of each students' heritage language themselves, but simply prompting students with questions about similarity and difference can encourage positive linguistic transfer and a development of metalinguistic awareness in both languages (Gutiérrez et al. 1999; Qin and Llosa, 2023; Soltero-González, 2009).

In regard to literacy, there was also a slight disadvantage for those who were fully fluent in their heritage language in both reading ('Yes, fluently' M = 26.2 compared to 'Yes, a little' M = 26.6) and writing ('Yes, fluently' M = 26.2 compared to 'Yes, a little' M = 26.5 and 'No' M = 27.5) although again this was not statistically significant. As before, this may be an indication that these students have a slightly lower proficiency in English overall leading to lower attainment as discussed by Strand and colleagues (2015), but this cannot be confirmed without an explicit measurement of English proficiency. The most effective way to integrate this into a possible follow-up study in the future will be discussed in the limitations section.

While the incomplete picture of the participants in this study is partially a result of the limitations of the research design, it is also a reflection of the incomplete picture schools in the UK have of their EAL students. Of the five multilingual participants interviewed for this project, only one was classified as EAL according to their school system despite the fact that all of them fell under the category of EAL as per the Department for Education (2020) definition of a student 'exposed to a language at home that is known or believed to be other than English' (page 4). I believe that this is a good indication of the inutility of this term to describe the hugely heterogenous multilingual student population of the UK. Instead, I propose that schools utilise a similar language background questionnaire to the one used in the present study for all students when they join a new school. I would recommend a form with questions for both parents or carers and the students themselves to provide a full picture of their language background. Teachers would then be able to refer to this, in the same way they can refer to Education, Health and Care Plans in the current system, to provide more nuanced and effective support for students. Removing the label of EAL, which some fully balanced bilinguals may not identify with for example, may encourage more students to discuss and therefore utilise their prior language experience in the modern languages classroom.

6.4. Exploring the relationship between typological proximity to Spanish and EAL students' Spanish proficiency

Although some researchers have argued that language acquisition is a universal process regardless of language specificities and is therefore not affected by typological similarity (Cenoz, 2003; Håkansson et al., 2002), the findings of the present study found a moderate correlation between the typological distance of students' heritage language to Spanish and their Spanish proficiency. This is in line with several other studies from a variety of educational contexts (Bardel and Falk, 2007; Bialystock et al., 2003; Falk and Bardel, 2010; Huang, 2016). In the present study, a particularly large drop in overall scores was noted for students who belonged to the low typological proximity group. As discussed previously however, it may be difficult for teachers to help students in the medium and high proximity groups make the most of this benefit if they are not familiar with the students' heritage language. In addition to the language background questionnaires outlined in the previous section, I believe modern languages teachers would benefit significantly from explicit training in multilingual education and the different teaching strategies this may entail. Data indicates that teachers in the UK feel particularly underprepared in this area, and this is due to a lack of training (Ginnis et al., 2018).

It is important to note however that the findings from professional development programmes such as these highlight the importance of sustained and in-depth work with teachers to truly benefit EAL learners (Cervetti et al., 2015), and this will not be welcomed by many UK schools who lack the necessary time and money to invest in this (Sibieta, 2024).

Another difficulty faced by UK schools in implementing training programmes such as those mentioned above is the hugely heterogenous nature of the student population. Although several studies show clearly positive results from long term interventions (Maerten-Riveraet al., 2016; Matuchniak et al., 2013; Olson et al., 2017), two of these studies had entirely homogenous EAL populations. This made the creation and implementation of resources for students far easier as they only had to be developed in one language. This is not to say however that it is impossible for teachers to engage with students' heritage languages in the classroom without a high proficiency in the languages in question. A study by Quin and Llosa was conducted in a high school in New York where students spoke just over twenty different languages, far closer to the diverse UK student population. They investigated the practises of a science teacher who spoke intermediate Spanish and beginner Mandarin, the

two most widely spoken languages in his class. He did not however speak any Arabic or Bengali, the other two languages represented amongst EAL students, but despite this 'intentionally invited students to share their ideas in their first languages, regardless of the number of students speaking that language as their first language' (page 178). The authors assert that this practice had a hugely positive effect as it 'allows teachers and students to use their full linguistic repertoire to negotiate meaning, to bond, and to create safe spaces' in the classroom (page 729). If such positive results can be found in a science class, I believe the impact teaching practice such as this could have in a modern languages classroom, where the focus is explicitly on the building of linguistic repertoires, may have even more potential.

6.5. Exploring the relationship between typographic proximity and EAL students Spanish proficiency

While the benefits of typological distance in language learning are clearer, research is more divided on the question of typographic distance with some finding an effect for positive language transfer (Chung et al., 2017; Koda, 2005; Rothman 2010; Schepens et al., 2015) and others finding no effect (Gottardo et al., 2001; Ke, 1998; Wang, 2003; Wang 2006). Research by Gottardo and colleagues and Wang actually found a positive language transfer effect for learners of English whose L1s were Cantonese, Mandarin, and Korean respectively. This contradicts the findings of the present study, which found a moderate correlation between the typographic distance of students' heritage language to Spanish and their Spanish proficiency. I believe that a key reason for this discrepancy is the fact that out of the eleven students who were speakers of non-alphabetic languages, only five were literate in said language. The participants in Gottardo and colleagues and Wang's studies were all fully literate in contrast. Therefore, it is likely that students' lack of literacy in the present study would have inhibited the potential for the positive transfer witnessed in these other studies. I believe that this is another important facet of prior language experience that teachers would benefit from knowing more about in order to effectively support EAL students in the modern languages classroom.

6.6. Exploring how EAL students draw on their prior language experience in the Spanish classroom, and how, if at all, this differs from EL1 students

This research question was investigated through three interviews conducted with students at the two schools. A thematic content analysis approach was chosen (Vaismoradi et al., 2019) when analysing the interviews to compare the differing and common themes amongst EAL and EL1 students. This approach was selected in order to first identify the themes relevant to each participant individually, and then to explore how these related to each other within the group as a whole.

The first interview was conducted with three EAL students from School A. Interviewee 1 was a Georgian speaker, Interviewee 2 was a Turkish speaker, and Interviewee 3 was an Albanian speaker. The first interview question was related to unknown vocabulary, with all three interviewees discussing the role of English cognates and context clues to help with understanding, indicating both awareness of positive language transfer and syntactic knowledge. The participants all acknowledged a similar thinking process with cognates in their heritage languages but did not explore this in any depth. Interviewee 1 indicated that the process was harder as Georgian uses a different alphabet to both English and Spanish, but again did not expand on this in any detail. This difficulty with encouraging students to share more detailed responses was a common theme across both interviews conducted at School A and will be discussed further in the limitations section.

Interviewee 2, the only student classified as EAL by the school, mentioned that their teacher occasionally made links between Turkish and Spanish and their shared Arabic influences, but only in the context of encouraging them to sit a Turkish GCSE. This emphasis on exams, amongst both teachers and students, was a recurrent theme throughout the interviews. While interviewee 2 seemed largely positive about these interactions, interviewee 1 expressed embarrassment at the thought of a teacher commenting on their heritage language in class ‘could be kinda embarrassing, if the teacher is like oh *you* speak this language so do you

know *this*?'. The student may have interpreted this action as exclusionary, as opposed to the inclusive environment created by the teacher described in Qin and Llosa's study. Both interviewee 1 and 3 expressed reluctance or uncertainty when discussing the topic further and were not in favour of teachers using or highlighting languages other than Spanish in the classroom. This highlights the delicate nature of engaging with a topic as personal as heritage language with students in the classroom. Language is linked to our national, ethnic, and religious identities (Ronan and Ziegler, 2022) as well as a myriad of other sociocultural-political topics. I believe that this quote reinforces the importance of specific training for teachers in regard to teaching EAL learners, so all students feel accepted and welcomed in the classroom.

The second interview was conducted with three EL1 students from School A. As opposed to the syntactic knowledge discussed by the EAL students in the previous interview, here students focused more on their morphological knowledge when encountering unknown vocabulary. Interviewee 4 noted 'there's certain endings for words in Spanish, so if it ended in a weird letter that they don't really use in Spanish then it's probably not going to be real'. As opposed to the largely negative reactions to other languages being incorporated into the Spanish classroom from the EAL interviewees, the EL1 students were largely positive with interviewee 5 noting 'there are words that like connect with each other, so you can figure more stuff out for yourself' and interviewee 4 adding 'it might help you think differently, like from a different point of view'. Although only a very small snapshot, I believe that this is an important indication that students may be receptive to the inclusion of other languages in the Spanish classroom, even if they are not languages they speak.

Interview three was conducted as a mixed group, with two EL1 and two EAL students from School B. While the EAL students at School A (Interviewees 5 and 7) discussed the ways in which cognates could help them, the two EAL students at school B (one Greek and one Polish speaker) discussed 'false friends', or words that appear to be cognates but in fact have different meanings. The EL1 students also discussed issues with negative language transfer, with interviewee 6 recalling a Spanish assessment they accidentally wrote in French. While all of the participants noted the potentially confusing effect of the use of multiple languages

in the Spanish classroom, both EAL students expressed interest at the thought of their teachers referencing or using their heritage languages. This is a strong contrast to the EAL students from School A, but it is not immediately clear what may have caused this discrepancy. A potential factor could have been that School B has a dedicated EAL coordinator while School A does not, perhaps fostering a more positive reception to a wider variety of languages amongst students. The interviewees also seemed generally more at ease and willing to engage with both the interviewer and each other at School B, perhaps because the students already seemed to be good friends. This was purely coincidental as interviewees were selected at random. Another potential factor is gender, as both EAL interviewees at School B were female while interviewee 1, the strongest opponent to the use of heritage languages in the Spanish classroom, was male. It is difficult to be certain which, if any of these, was the main reason for this difference amongst EAL students. A larger sample size of interviewees would have made it easier to draw strong conclusions, however fewer parents consented to this phase of the study as mentioned previously.

As in the first interview, students discussed teachers encouraging them to sit GCSEs in their heritage language, although at School B this was discussed with much more trepidation. Interviewee 7 recounts a teacher entering them for a Polish GCSE but choosing not to sit the exam, 'I got a little scare when Miss ___ just gave me Polish GCSE instead of actually talking about it to me. And I was like [laughs] I can't do this'. I believe this is another case where a language background questionnaire may have benefitted both student and teacher. Interviewee 2 could read and write fluently in Turkish and identified it as the majority language spoken in their home. In contrast, Interviewee 7 identified English as the majority language of their household and could neither read nor write in Polish. Providing schools with a clear understanding of students' language backgrounds could help avoid anxiety inducing incidents such as this.

The process of choosing their GCSEs was discussed in depth by all four interviewees. Languages were not seen as particularly desirable with few students choosing them as an option, instead most students were assigned a languages "pathway" by the school if their grades were high enough and as explained by interviewee 8 'if you're put in the language

pathway you have to do the language, unless you opt out of it'. The difficulty of language exams was cited as one of the reasons why students were put off the GCSE, reflecting data across the rest of the country (Vidal Rodeiro, 2017). Interviewees 5, 7, and 8 all noted however that if they didn't have to sit an exam in the language, they would be more open to studying languages, including ones not offered as part of the main curriculum. Interviewee 5 expressly cited interest in learning their heritage language at school, although not if they were formally assessed in it. I believe that this reflects a problem with the way language learning is structured in the UK, with a heavy emphasis on assessment. This is too broad and complex an issue to be covered in the current essay but is worth noting in passing. In contrast to the other students, Interviewee 6 did not express an interest in language learning even if the way it was taught was changed, summarising succinctly 'There's just [shrugs] better things.'

Although students had expressed some dissatisfaction with language learning in their school environment, they were largely positive about language learning both at home and online. Interviewees 5 and 7 both discussed engaging with their heritage language when other family members used it and trying to 'decode' what was being said. All of the interviewees discussed using language learning apps such as Duolingo and Memrise, with the former being the favourite as it was deemed to have more variety. I believe these positive reactions to language learning in less formal contexts is an encouraging indicator once more that students may be receptive to other languages being used in the Spanish classroom to build upon students' linguistic repertoires in new and interesting ways. Longer samples from each of the transcripts of the interviews can be found in Appendix O.

Chapter 7. Conclusion

7.1 Limitations

Several limitations have been discussed in regard to the various instruments used in the test battery for the present study, particularly the language background questionnaire. Analysis of the findings would have been improved if a measurement of prior formal language learning experience had been included, as well as some indication of students socioeconomic background such as parent education level. Another important facet that was not explored was participants' English proficiency. This was originally not included as it was thought it would make the overall test battery too long. A potential solution to this issue may be to use students' current grades in English from their school as a proxy for general proficiency. Another aspect of the test battery that was excluded was a separate measure of metalinguistic awareness. The THAM-2 test developed by (Núñez Delgado and Pinto, 2015) was originally considered, but this was deemed too complex for the participants, not only in regard to their Spanish proficiency but also the English proficiency necessary to understand the instructions for the test. Without the time and resource constraints of the current project, a new metalinguistic awareness test better suited to the pupils in the current study could have been devised. Interviews were also affected by time constraints, with a period of two weeks between the main data collection phase and interviews. Ideally these would have been conducted on the same day, but this was not possible with the schools' timetables. I believe that this made it difficult for students to fully engage with the think aloud aspect of the interviews, as they couldn't fully remember their thought processes when completing the tasks from the main phase. More instruction or guidance on the think aloud process itself may have also been beneficial for participants and allowed them to give more detailed answers. The implications of all of these limitations in conjunction with the overall findings will be summarised in full in the following conclusion chapter.

7.2. Recommendations

Based on the above discussion, the following recommendations would be made for future EAL teaching practice in the modern languages classroom and EAL provision in schools in general. On a classroom level, modern languages teachers should consider providing additional support to EAL students in regard to vocabulary acquisition, an area in which they

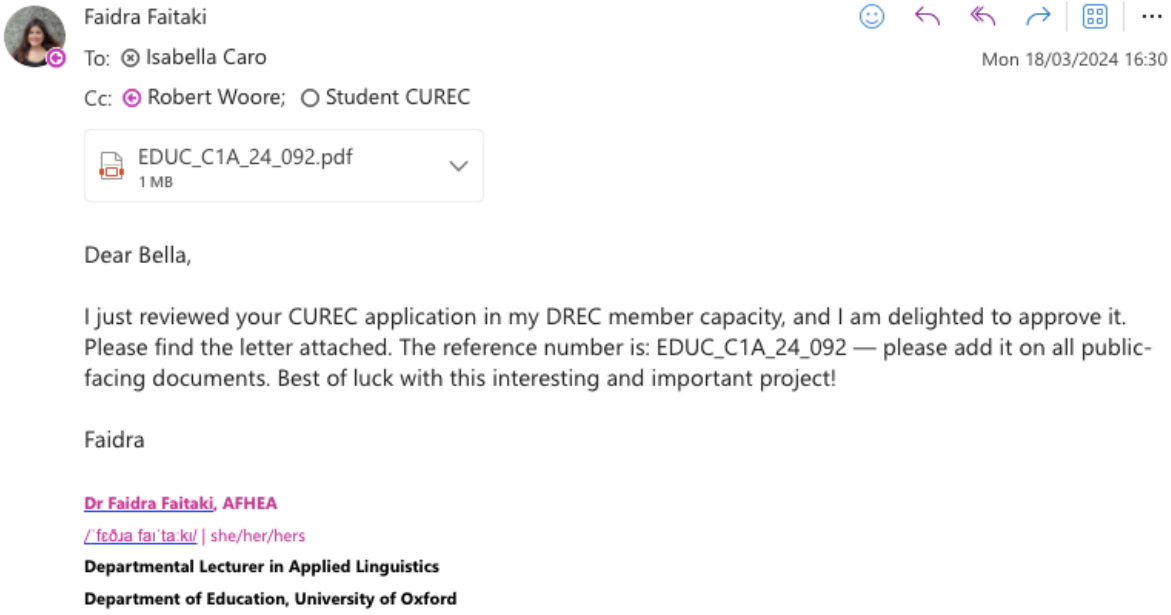
fall slightly behind their monolingual peers as noted in the present study's vocabulary knowledge task. Additional focus on explicit grammar instruction would benefit both EAL and EL1 students alike, as all participants in the current study struggled to identify and name many key grammatical features. Introducing students to the concept of metalinguistics may help to develop this knowledge, for example through the introduction of key linguistic terms. A number of students were able to identify pronouns and explain how these affected sentences in the grammaticality judgement task, which shows there is a potential to expand on existing knowledge of grammatical terms. Finally, EAL students whose heritage language is typologically distant to the language of the classroom may require additional support, as their overall scores in the present test were considerably below other EAL students and often their EL1 peers as well.

On a school level, modern languages teachers would benefit from knowing the language backgrounds of all of their students. Within a sample of just ten students discussed in the present study there were those who spoke exclusively in their heritage language outside of school and were not classified as EAL, and those who could not read or write in their heritage language but were put forward for a GCSE in the subject. Neither of these instances are the fault of individual teachers, but the fault of the EAL label which tells us so little about a student's actual language background. This paper strongly recommends the introduction of a more in-depth analysis of multilingual student's prior language experience, potentially in the form of a questionnaire, to support both teachers and students alike. A better understanding of this language background will in turn enable teachers to draw links between students' heritage languages and the languages they are learning in the classroom. This paper has demonstrated the positive effect of typological distance on language learning, and utilising this in the classroom could be of great help to multilingual learners. Finally on a national level, this paper advocates for all teachers receiving specific training for working with EAL learners. This is an ever-growing subset of the UK school population and as a complex and diverse group of students, they require complex and diverse means of supporting their learning and development.

7.3. Concluding Remarks

This paper aimed to identify the ways in which EL1 and EAL students differed in their learning in the Spanish classroom, and the reasons behind these differences. Based on a quantitative and qualitative analysis of the data gathered, it can be concluded that there is no statistically significant difference between these groups of learners' overall Spanish proficiency. The data did indicate however that there were differences within the EAL group according to their heritage language. A moderate correlation was found between students' overall Spanish proficiency and their heritage language's typological proximity to Spanish. These findings, alongside those gathered from interviews conducted with both EAL and EL1 students, demonstrate the need for teachers and schools to have a better understanding of students' language backgrounds. This paper concludes by urging educators to consider whether a term as broad as "EAL" can truly capture the complexities of so many thousands of children's lived language experiences, and what use this term currently serves us in supporting multilingual children in the classroom.

Appendix A: CUREC approval email



Faidra Faitaki

To: Isabella Caro

Cc: Robert Woore; Student CUREC

Mon 18/03/2024 16:30

EDUC_C1A_24_092.pdf
1 MB

Dear Bella,

I just reviewed your CUREC application in my DREC member capacity, and I am delighted to approve it. Please find the letter attached. The reference number is: EDUC_C1A_24_092 — please add it on all public-facing documents. Best of luck with this interesting and important project!

Faidra

Dr Faidra Faitaki, AFHEA
/ˈfɛðɹa faɪˈtaːki/ | she/her/hers
Departmental Lecturer in Applied Linguistics
Department of Education, University of Oxford

Appendix B: Headteacher information email

Dear Sir/Madam,

I hope this email finds you well. I am writing to enquire about conducting some research in your school in the Spring/Summer term of this academic year. Last year I completed a PGCE in Modern Languages at the University of Oxford and this year I am continuing my studies at the Department of Education with a Masters specialising in second language acquisition. For my dissertation, I am hoping to explore EAL students' experiences of learning Spanish in UK secondary schools and comparing this to monolingual students' experiences. My research questions are:

1. To what extent, if at all, do EAL and monolingual students differ in terms of their Spanish proficiency?
2. To what extent, if at all, do EAL students differ amongst themselves in terms of their Spanish proficiency?
3. Can these differences be accounted for in relation to the nature and extent of their prior language experience, including literacy?
4. To what extent, if at all, do EAL students report on drawing on their prior language experience during Spanish classes?

The research will take place with all Year 9 students of Spanish who are willing to take part, and who are not native Spanish speakers. The project is not aiming to change what or how the teacher chooses to teach and will not be making any judgements about teaching. My research focus is only on students' experiences of learning Spanish, as an additional language to their heritage language and English.

By participating in the research, your school would be contributing to research that will help to address a gap in the existing research literature around EAL students' experiences in the Modern Languages classroom. I hope that in time this may help MFL teachers to better support EAL students in the Modern Languages classroom, an area in which they are often underrepresented but I believe, if given the chance, could thrive.

The commitment from the school would be:

1. To facilitate the distribution of information letters (via email or in hard copy) and collection of consent forms from the parents of students in Year 9 who are studying Spanish. (*Starting as soon as possible after the Easter Holidays – the parent information letter and consent form are attached for your information*)

2. To allow the school's Spanish teacher(s) to dedicate part of a lesson to invite their Year 9 students to complete questionnaires about their language backgrounds. (*In the first half of the summer term, ideally before the end of April*)
3. To allow the school's Spanish teacher(s) to dedicate part of a lesson to invite their Year 9 students to complete a vocabulary and grammar task.
4. To allow me to visit the school to conduct short, audio-recorded, follow-up interviews with a sample of Year 9 students of Spanish. (*At an agreed date before the end of May*)

Oxford University has strict ethical procedures on conducting ethical research with teachers and students, consistent with current British Educational Research Association guidelines. Before beginning the research, we would inform parents/guardians about the research and seek their written consent to participate. Throughout the research, students and parents/guardians will be able to refuse to participate at any time.

All participants, including students, teachers, and the school, would be made anonymous in all research reports. The data collected would be kept strictly confidential, available only to the research team and not used other than specified without the further consent of all involved being obtained. All recordings would be destroyed at the end of the research period and kept in locked conditions until then. The PIs and the research assistant all hold enhanced DBS checks. I have enclosed copies of the information for parents/guardians and students with this letter.

If your school would like to take part in the study, or you need more information about what is involved, please contact me at isabella.caro@education.ox.ac.uk. Whether or not you feel it would be appropriate for your school to participate, I would be grateful if you would complete the pro-forma below and return it to me via email at your earliest convenience.

Thank you for your time and attention. I look forward to hearing from you.

Yours Sincerely,

Isabella Caro

~

To what extent does prior language experience affect students' learning of a foreign language? A comparison of "EAL" and monolingual learners in school classrooms.

Head teacher name:
School name:
School address:

☐ We do not wish to participate in this project.
☐ We would like to find out more about this project.
☐ We would like to take part in this project.

If you would like further information, or are interested in taking part, please give the name of a contact person for your school, and details of the best way to contact them.

Contact name:
Contact email:
Contact telephone number:

Please return this form via email to isabella.caro@education.ox.ac.uk. Thank you for your help.

Appendix C: Parent information sheet and consent form

Title: To what extent does prior language experience affect students' L2 proficiency? A comparison of "EAL" and monolingual learners in the school foreign language classroom.

Central University Research Ethics Committee Approval
Reference: EDUC_C1A_24_092

Contact: isabella.caro@education.ox.ac.uk

Introduction: In partnership with researchers at the University of Oxford, your child's school has agreed to take part in a research study investigating the differences in language learning between multilingual and monolingual children. We would like to invite your child to be part of this research. We very much hope you would like your child to take part, but before you decide, it is important that you understand why the research is being done and what it will involve.

Why is this research being conducted? Over the past three decades there has been a steady increase in the number of students in the UK who speak English as an Additional Language (EAL). A large body of research has shown that speaking two or more languages has a positive impact on learning additional languages as well, and I have also observed this first hand as a Spanish teacher in UK secondary schools. Through this research project I hope to investigate how the languages students speak, other than English, impact their learning in the Spanish classroom. I also hope to provide teachers with some guidance on helping students to draw links between the language they are learning in school (Spanish) and other languages they know.

We are inviting your child to take part because they are a young person, aged between 13-14 years old, attending XXXXX, and studying Spanish. We are inviting almost 150 young people to take part. Because the focus is on learning Spanish as a foreign language in school, we are only inviting students to participate who do not speak Spanish as a main language at home.

I am completing this study as part of my master's degree in Second Language Acquisition, under the supervision of Dr Robert Woore at Oxford University Department of Education.

Your child does not have to be involved. You can ask questions about the research before deciding whether to allow your child to participate. Your child can also withdraw from the study even if they agree to take part to start with – see below. If your child is not involved in the research, they will do some Spanish tasks as usual in their languages lesson.

What will happen if my child takes part? This study will have two parts. The first part will involve all students completing a questionnaire about any languages they speak other than English. This will take around 10 minutes to complete. Then, students will complete a Spanish vocabulary task and a Spanish grammar task. These are not tests! The results of these will have no impact on their school grade and will only be used for the purpose of this research project. The tasks will take around 10 minutes total to complete.

The second part will involve interviews with a small group of students who have volunteered to take part. Separate consent and assent forms for you and your child will be distributed if they are selected – it is fine to agree to do Part 1 but not Part 2 if you prefer. The interviews will involve questions about students' thought process during the vocabulary and grammar tasks, and their feelings towards Spanish classes in general. Interviews will last around 10 minutes and will be audio recorded. The audio files from the interviews will be stored securely but will be transcribed and anonymised (using pseudonyms) as soon as possible. The audio files will then be securely deleted.

All research will be conducted during students' Spanish lessons. Data collection will take place during one whole lesson to minimise the disruption to their learning, with one additional half hour session for volunteers who are selected to participate in the interview section of this research project.

If you or your child decide that they would no longer like to take part, they can just tell their Spanish teacher at any point without needing to give a reason and without any negative consequence.

Students will be asked to write their names on the questionnaire and tasks they complete. After the forms have been collected, I will replace all of the names with an ID number and shred the original copies. This means that the data will be effectively anonymous. I will have a key linking the ID numbers to names, so that I can conduct analyses and choose interview participants. If your child wishes to withdraw their data, and have given their name, they have until 30th June 2024 to do so. After this, the analysis will be complete and the key linking ID numbers to names will be securely deleted.

What are the advantages and disadvantages of taking part? There are no risks that we can think of in taking part in this research. They will spend some of their Spanish lessons on the research activities, but these are related to Spanish learning and your child's head teacher and languages department are supporting this study.

While there are no immediate benefits to your child in participating, they might enjoy doing

the tasks. Hopefully, the study will also lead to a better understanding of how students learn foreign languages and may be useful for teachers.

What information will be collected? The questionnaires and language tasks will be completed on paper, but I will enter the information into an electronic spreadsheet as soon as possible and shred the paper copies. All electronic data, including consent forms (and, for Part 2 participants, audio recordings) will be securely stored in a password-protected folder on the university's OneDrive for Business account. Only I will be able to access this. Data will be stored for at least three years after submission of my dissertation, as per university guidelines.

School will keep the opt-out forms until my study is completed. They will make sure that no children take part if they don't want to, or if parents have said no.

For Part 2, audio recordings will be transcribed as soon as possible, and the audio files securely deleted. The transcripts will be made anonymous by using ID numbers instead of names.

My supervisor will have access to the research data and assume responsibility for data management and deletion as per university guidelines once I leave the university.

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your child's personal data is protected in the research.

The University will process your child's personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest.

Further information about your rights with respect to your personal data is available from https://compliance.web.ox.ac.uk/individual-rights

The findings from the research will be written up in a dissertation. A summary of the findings will be given to the school and will be available if you'd like to read them. I may also submit the findings to an academic journal for publication. I will not identify the school, teacher or any students in any reports of the research.

This research has received ethics approval from a subcommittee of the University of Oxford Central University Research Ethics Committee. (Ethics reference: EDUC_C1A_24_092).

Who do I contact if I have a question about the research? If you have a concern about any aspect of this research, please contact me, Isabella Caro, at

isabella.caro@education.ox.ac.uk or Robert Woore at robert.woore@education.ox.ac.uk, and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with.

If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Departmental Research Ethics Committee at University of Oxford Department of Education who will seek to resolve the matter as soon as possible: student.curec@education.ox.ac.uk; 15 Norham Gardens, Oxford OX2 6PY.

What do I do next? If you are happy for your child to take part in Part 1 of this study, you do not need to take any other action. If I do not hear back from you by 15/05/2024, then I will assume it is OK for your child to take part. This has been agreed with your school's head teacher. If you do NOT want them to take part, please fill in the following 'opt out' consent form.

I will contact you separately if your child is happy to be interviewed and I select them for this part of the study, to ask for your consent for this.

Opt out form

I, the undersigned, hereby DO NOT give permission for my child to take part in the study titled: To what extent does prior language experience affect students' L2 proficiency? A comparison of "EAL" and monolingual learners in the school foreign language classroom.

Name of child:
Name of parent/guardian:
Date:

Appendix D: Student information sheet and assent form

Title: To what extent does prior language experience affect students' L2 proficiency? A comparison of "EAL" and monolingual learners in the school foreign language classroom.

Central University Research Ethics Committee Approval
Reference: EDUC_C1A_24_092

Contact: isabella.caro@education.ox.ac.uk

Introduction: Hi! You are being invited to join in a research study. My name is Isabella and I work at the University of Oxford in the Department of Education. Before you decide if you would like to join in, it's important to understand what the research is about, why I'm doing it, and what it would involve for you. Please read and think about this leaflet carefully. Please feel free to talk to your family, friends, or teacher about it if you want. If anything isn't clear or you have more questions you can ask your parent/guardian to give me a call and I can discuss it with you and your parent/guardian.

Why am I doing this research? More and more children in UK schools speak a language other than English at home, and as a Spanish teacher who has worked in secondary schools in Oxford, I'm interested in how this affects students' learning. Lots of research has shown that speaking more than one language helps with language learning at school, and I want to find out more about this. I hope that this project will help both teachers and students in the Spanish classroom make the most of their lessons.

Because this project focuses on learning Spanish in the classroom, unfortunately you cannot take part if you already speak Spanish at home.

Do I have to take part? No - It is up to you to decide if you want to take part in this project. You are free to stop taking part at any time during the research without giving a reason. You can tell your teacher, parent/guardian, or me. You do not have to say why, and this will not affect your grades in Spanish in any way. If you decide to stop, no one will be upset with you.

What will happen if I take part in the research? The project will involve two parts. First, you will complete a questionnaire telling me about any languages other than English that you speak at home. Then everyone, even if you don't speak a language other than English, will complete two tasks in Spanish. These are not tests! They will not affect your Spanish grades in any way and will only be used for this research project. There will be one vocabulary task and one grammar task.

The second part will involve interviews with a small group of students. You do not have to do this part if you do not want to! This will be on a volunteer basis only, so if you just want to do part one of the study and then stop, that's okay. The interviews will be about the two tasks you completed, and your Spanish classes in general. The interviews will be completely anonymous in the study, so you can say whatever you like. No one will be able to link the interview responses to you. If you want to know more about how I will store all the relevant data safely and securely, you can look at the information leaflet your parent/guardian has received.

There are no risks that I can think of in taking part in the study. You will spend some of your usual lesson time doing the tasks for the study, but these are still related to Spanish learning.

Although there are no direct benefits to taking part, I hope the tasks and interviews will be interesting and enjoyable! I also hope this project will give teachers a better understanding of how students learn languages, and this will hopefully help your learning as well.

What information will be collected? Results are kept strictly confidential, and only the people doing the research, or helping with the research, can look at the data. Only a number will be used to identify you, and all information and results stored securely. Researchers will change the names of your school, teacher, and all the students when we write about the research. No one will know that you have taken part unless you tell them yourself.

We will keep your information private. This means we will only tell those who have a need or right to know, such as the research team and your parent/guardian. We will only share information that has your name removed.

If we want to use the information for anything else, we will ask your permission. At the end of the research, we will write to your school about what was discovered. You are welcome to read this if you are interested. If you want to know more about how I will store all the relevant data safely and securely, you can look at the information sheet your parent/guardian has received.

What if there is a problem or something goes wrong? Please tell me if you are worried about any part of this research. You can also talk to your teacher/parent/guardian who will let me know. If you are still unhappy or wish to make a complaint, either you or your teacher/parent/guardian can contact someone at the University. More details on this are available in the information leaflet given to your parent/guardian.

If you don't want to take part in the research anymore just tell your teacher, parent/guardian,

or me that you don't want to take part. You don't have to give a reason, and no one will be annoyed with you. It is YOUR choice.

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact me at isabella.caro@education.ox.ac.uk

What do I do next? Fill in the form on the following page. Thanks for reading!

Assent form

Do you understand what this project is about?

☐ Yes
☐ No

Have you asked all the questions you want about the project?

☐ Yes
☐ No
☐ Not applicable

If you did have a question, has it been answered in a way you understand?

☐ Yes
☐ No

Do you understand that it's okay to stop taking part at any time?

☐ Yes
☐ No

If you want to take part, please fill in the details below:

Name:
Date:

Appendix E: Parent information sheet and consent form (interviews)

Title: To what extent does prior language experience affect students' L2 proficiency? A comparison of "EAL" and monolingual learners in the school foreign language classroom.

Central University Research Ethics Committee Approval
Reference: EDUC_C1A_24_092

Contact: isabella.caro@education.ox.ac.uk

Introduction: Thank you for taking part in the first part of this study! The second part of this study involves interviews with students about their experiences learning Spanish. All the information on this part of the study can be found in the previous information sheet sent out by the school. Consent for this part of the study is opt IN rather than opt OUT so your child can only take part if you fill in this form and return it by 03/06/24. We hope your child will enjoy taking part, we have had very positive reviews from students who took part in similar research projects in the past!

Please read through all of the statements and then sign your name and your child's name if you are happy for them to take part.

1. I confirm that I have read and understand the information sheet for the above research. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my child's participation is voluntary and that I am free to withdraw them from the study at any point, until 30/06/24, without giving any reason.

3. I understand who will have access to personal data provided, how the data will be stored and what will happen to the data at the end of the project.

4. I understand that my child will not be identifiable from any publications.

5. I consent to my child being audio recorded during the interview.

6. Use of quotations: Please indicate your preference (select one option):

☐ I do not wish for my child to be quoted.
☐ I agree to the use of quotations in research outputs if my child is not identifiable.

7. I understand how to raise a concern or make a complaint.

8. I agree for my child to take part

Name of child:
Name of parent/guardian:
Date:

Appendix F: Student information sheet and consent form (interviews)

Title: To what extent does prior language experience affect students' L2 proficiency? A comparison of "EAL" and monolingual learners in the school foreign language classroom.

Central University Research Ethics Committee Approval
Reference: EDUC_C1A_24_092

Contact: isabella.caro@education.ox.ac.uk

Introduction: Thank you for taking part in the first part of this study! The second part of this study involves interviews about your experiences learning Spanish. All the information on this part of the study can be found in the previous information sheet sent out by the school to your parents. If you are happy to continue, please fill out the form below.

1. Has somebody explained this project to you?

☐ Yes
☐ No

2. Do you understand what this project is about?

☐ Yes
☐ No

3. Have you asked any questions you want?

☐ Yes
☐ No

4. Have you had any questions answered in a way you understand?

☐ Yes
☐ No
☐ Not applicable

5. Do you understand it’s okay to stop taking part at any time?

☐ Yes
☐ No

6. Do you agree to have your voice recorded?

☐ Yes
☐ No

7. Do you agree to being quoted anonymously?

☐ Yes
☐ No

Name:
Date:

Appendix G: Language Background Questionnaire

Name:	**School:**	**Class:**

1) What languages do you use outside of class?

_____

If you only answered English, or English and Spanish, you can stop the questionnaire here. If not, please go on to question 2.

2) Who else lives with you at home? Tick all that apply.

Parent 1	Parent 2	Other adults	Brother(s)	Sister(s)	Other children
_____	_____	_____	_____	_____	_____

3) Which languages does your Parent 1 use to speak to you at home?	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
4) Which languages do you use to speak to your Parent 1 at home?	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
5) Which languages does your Parent 2 use to speak to you at home?	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	

d. Mostly another language	
e. Always another language	
6) Which languages do you use to speak to your Parent 2 at home?	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
7) If other adults live with you at home, which languages do they use to speak to you? If this does not apply, go on to question 9.	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
8) If other adults live with you at home, which languages do you use to speak to them?	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
9) Which languages do you use to speak to your brothers and sisters at home? If the answer is different for different siblings, please write this in the 'Other' box below. If this does not apply, go on to question 10.	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
f. Other:	

10) If other children live with you at home, which languages do they use to speak to you? If this does not apply, go on to question 12.	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
11) If other children live with you at home, which languages do you use to speak to them?	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
12) Overall, what language do you hear the most spoken at home?	**Tick here**
a. Always English	
b. Mostly English	
c. Mostly another language	
d. Always another language	
13) Do you know any other students who speak the same language(s) as you at school?	**Tick here**
a. Yes	
b. No	
14) If you answered yes, what languages do you use to speak with each other? If not, go on to question 15.	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
15) Do you know any other children who speak the same language(s) as you outside of school *and* outside of your family?	**Tick here**
a. Yes	

b. No	
16) If you answered yes, what languages do you use to speak with each other? If not, go on to question 17.	**Tick here**
a. Always English	
b. Mostly English	
c. About equally English and another language	
d. Mostly another language	
e. Always another language	
17) Can you read in another language/other languages?	**Tick here**
a. Yes, fluently	
b. Yes, a little bit	
c. No, not at all	
18) Can you write in another language/other languages?	**Tick here**
a. Yes, fluently	
b. Yes, a little bit	
c. No, not at all	
19) How often do you read in another language/other languages?	**Tick here**
a. Everyday	
b. Sometimes	
c. Rarely	
d. Never	
20) How often do you write in another language/other languages?	**Tick here**
a. Everyday	
b. Sometimes	
c. Rarely	
d. Never	
21) How often do you watch TV/films in another language/other languages?	**Tick here**
a. Everyday	
b. Sometimes	

c. Rarely	
d. Never	
22) How often do you listen to music in another language/other languages?	**Tick here**
a. Everyday	
b. Sometimes	
c. Rarely	
d. Never	
23) How often do you use social media in another language/other languages?	**Tick here**
a. Everyday	
b. Sometimes	
c. Rarely	
d. Never	
End of Questionnaire Thank you! :)	

Appendix H: Grammaticality judgement task

Name:	School:	Class:

When we speak a language, we can usually tell when a sentence makes sense and when it doesn't, even if we haven't been taught any particular rules about this. The same goes for the grammar of a sentence. Both of these are much harder to tell with a language we are learning! On the next page there is a list of sentences in Spanish. There are four different categories of sentences:

1. A sentence that makes sense, and the grammar is right
2. A sentence that makes sense, but the grammar is wrong
3. A sentence that doesn't make sense, but the grammar is right
4. A sentence that doesn't make sense, and the grammar is wrong

An example of these in English would be:

1. My dad likes baking cakes
2. My dad like baking cakes
3. The chair is climbing the tree
4. The chair is climbed the tree

Read through the list of sentences on the next page and decide if they are a type 1, 2, 3, or 4 sentence. If you cannot decide, put 5 for 'I don't know.'

If the sentence is a type 2 or type 4 sentence, circle or underline where you think the grammar is wrong. For example:

- My dad <u>like</u> baking cakes
- The chair is <u>climbed</u> the tree

Even if you can't explain why you think the grammar is wrong, go with what you feel! Turn the paper over to begin.

1. El hombre fue al estadio mañana	**1**	**2**	**3**	**4**	**5**
2. Mis amigos decidieron ir al aeropuerto	**1**	**2**	**3**	**4**	**5**
3. Mi amiga está bebiendo el espejo	**1**	**2**	**3**	**4**	**5**
4. Las niñas perdieron el país	**1**	**2**	**3**	**4**	**5**
5. Mi hermana sigue el jardinero al jardín	**1**	**2**	**3**	**4**	**5**
6. La niña sabiá la basura afuera	**1**	**2**	**3**	**4**	**5**
7. Mi padre necesitaba una cita ayer	**1**	**2**	**3**	**4**	**5**
8. Mi hermano busco una habitación por alquilar	**1**	**2**	**3**	**4**	**5**
9. El niño comen el vuelo	**1**	**2**	**3**	**4**	**5**
10. La empresa fue robada por la mujer	**1**	**2**	**3**	**4**	**5**
11. Mi hermano ayudará la tarjeta ayer	**1**	**2**	**3**	**4**	**5**
12. El texto fue traducido para mi madre	**1**	**2**	**3**	**4**	**5**
13. El hombre está imaginando unas vacaciones en la playa	**1**	**2**	**3**	**4**	**5**
14. La niña es una aula	**1**	**2**	**3**	**4**	**5**
15. Mis amigas ponen la comida en la cocina	**1**	**2**	**3**	**4**	**5**
16. Mi amigo vivió en la fresa	**1**	**2**	**3**	**4**	**5**
17. El niño está leyendo la silla	**1**	**2**	**3**	**4**	**5**
18. La niña correr en el horno	**1**	**2**	**3**	**4**	**5**
19. Mi hermana venderá libros en su nueva tienda	**1**	**2**	**3**	**4**	**5**
20. Las niñas escriben cartas a sus abuelos	**1**	**2**	**3**	**4**	**5**
21. Mi amiga hace la pelota	**1**	**2**	**3**	**4**	**5**
22. Mis amigas empieza los deberes muy tarde	**1**	**2**	**3**	**4**	**5**
23. El hombre recicla el periodista	**1**	**2**	**3**	**4**	**5**
24. El queso le enseña mi padre	**1**	**2**	**3**	**4**	**5**
25. La niña viajó a la iglesia para la boda	**1**	**2**	**3**	**4**	**5**

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Appendix I: Grammaticality judgement task (2nd version)

Name:	**School:**	**Class:**

When we speak a language, we can usually tell when the grammar in a sentence is correct, even if we haven't been taught any rules about it.

For example:

a. The boy is talking to his friend – correct
b. The boy is talked to his friend – incorrect
c. There are five apples on the table – correct
d. There are five apple on the table – incorrect

On the next page there is a list of Spanish sentences. Read through the sentences and decide if they are grammatically correct or incorrect.

If they are correct, just tick the box. If they are incorrect, tick the box and then circle or underline the part of the sentence that is incorrect.

For example:

a. The boy is talked to his friend
b. There are five apple on the table

Please complete the task in silence, without using your book or a dictionary to help you.

Turn over to begin.

	Correct	Incorrect	Don't know
Me llamas Carlos			
El año pasado, ellos visitaban España			
Yo como no carne			
Ella juga tenis			
Yo tengo una camiseta roja			
Yo estoy en casa			
Ayer, yo bebo un café			
Nosotros escuchamos música			
Mi abuelos son viejos			
El chico no estudia inglés			
Mi hermano es feliz			
El gato es menos grande que el perro			
Ellos lees el libro			
La chica es alto			
Yo tengos dos hermanos			
Yo soy triste			
Nosotros jugamos fútbol			
El perro es grandes			
Primero, me ducho			
El libro es más interesante de la película			

Appendix J: Vocabulary knowledge task

Name:	School:	Class:

This is a test of Spanish vocabulary. You will get 45 sequences of letters that look "Spanish". Only some of them are real words!

Please indicate the words you know (or that you think are Spanish words, even if you can't give their exact meaning). You will get one point for each word correctly identified.

Be careful though, choosing non-words will make you lose a point, so don't just tick every box!

So remember, just put a tick next to the words you know, or that you think you know. For example, if you recognise the words "sí", "sacapuntas", "bien", and "casa" here, your sheet should look like this:

Item	Word?
depiste	
sí	✓
coné	
calpar	
joten	
sacapuntas	✓
priba	
pelasula	
bien	✓
casa	✓
lejo	
pretantas	

Please complete the test in silence, without using your book or a dictionary to help you.

Turn over to begin the test.

Item	Word?
Vestirse	
Falta	
Floroso	
Castigo	
Terzo	
Muerto	
Decar	
Andén	
Batillón	
Té	
Lampera	
Escalera	
Pasear	
Gerente	
Aldea	
Contraseña	
Enseñar	
Antar	
Capillo	
Cadeña	
Leche	
Electricista	
Arsa	
Salón	
Cantar	
Abracer	
Egoísta	
Carnicero	
Documental	
Matrimonio	
Campo	
Alardio	
Pauca	
Guardar	
Pensión	
Instituto	
Acutación	
Sacar	
Brecedad	
Bañarse	
Ahorrar	
Hijo	
Informar	
Fatacidad	
Puerta	

Appendix K: Vocabulary knowledge task (2nd version)

Name:	School:	Class:

This task assesses your Spanish vocabulary. You will get 30 sequences of letters that look "Spanish". But only 20 of them are real words!

Please tick the words you know (or that you think are Spanish words, even if you can't give their exact meaning). You will get one point for each word correctly identified.

Be careful though, choosing non-words will make you lose a point, so don't just tick every box!

For example, if you recognise the words "sí", "sacapuntas", "bien", and "casa" here, your sheet should look like this:

Item	Word?
depiste	
sí	✓
coné	
calpar	
joten	
sacapuntas	✓
priba	
pelasula	
bien	✓
casa	✓
lejo	
pretantas	

Please complete the task in silence, without using your book or a dictionary to help you.

Turn over to begin.

Item	Word?
Comer	
Camiseta	
Bailar	
Escuchar	
Gustar	
Capillo	
Dientes	
Yogur	
Batillón	
Emocionante	
Desastre	
Terzo	
Guay	
Día	
Todos	
Cine	
Levarse	
Cadeña	
Brecedad	
Comprar	
Abracer	
Avión	
Flororoso	
Tomar	
Decar	
Enorme	
Rojo	
Comedor	
Lampera	
Antar	

Appendix L: Typological distance scale

	Inflectional morphology	Number of cases	Coding of plurality	Coding of negation	Polar question coding	Future tense	Past tense	Perfective/ Imperfective	Morph-ological imperative	Definite/ Indefinite article	Total Score
Albanian	Strongly suffixing	4	Plural suffix	SNegVo	Yes	Yes	Yes	Yes	Yes	Yes/Yes	**8**
Arabic	Strongly suffixing	0	Mixed plural	SNegVo	No	Yes	Yes	Yes	Yes	Yes/No	**8.5**
Azari	Strongly suffixing	2	Plural suffix	SO [V-Neg]	No	Yes	Yes	Yes	Yes	No/Yes	**6.5**
Bulgarian	Strongly suffixing	0	Plural suffix	SNegVO	Yes	No	Yes	Yes	Yes	Yes/No	**7.5**
Burmese	Strongly suffixing	8-9	Plural word	SO[Neg-V]Neg	No	No	No	No	No	No/No	**2**
Cantonese	Little affixation	0	No plural	SNegVO	Yes	No	No	No	No	No/Yes	**2.5**
English	Strongly suffixing	0	Plural suffix	SNegVO	No	Yes	Yes	No	No	Yes/Yes	**8**
Farsi	Strongly suffixing	2	Plural suffix	SO [V-Neg]	No	Yes	Yes	Yes	Yes	No/Yes	**6.5**
French	Strongly suffixing	0	Plural suffix	SNegVO	Yes	Yes	Yes	Yes	Yes	Yes/Yes	**9**
Georgian	Weakly suffixing	6-7	Plural suffix	SONegV	No	Yes	No	No	No	No/No	**3**
German	Strongly suffixing	4	Plural suffix	SVONeg/ SONegV	No	Yes	Yes	Yes	Yes	Yes/Yes	**8**
Greek	Strongly suffixing	3	Plural suffix	SNegVO/ NegVSO	Yes	Yes	Yes	Yes	Yes	Yes/Yes	**7**
Hebrew	Weakly suffixing	0	Plural suffix	SNegVO	Yes	Yes	Yes	Yes	Yes	Yes/Yes	**6**
Igbo	Weakly suffixing	0	Mixed plural	[Neg]SVO[Neg]	No	Yes	Yes	Yes	No	No/No	**5**
Italian	Strongly suffixing	0	Plural suffix	SNegVO	No	Yes	Yes	Yes	Yes	Yes/Yes	**10**
Jamaican Creole	Weakly suffixing	0	Plural suffix	S[Neg-VO]Neg	No	Yes	Yes	Yes	No	Yes/Yes	**7**
Mandarin	Strongly suffixing	0	Plural suffix	SNegVO	Yes	No	No	No	No	Yes/No	**4**
Polish	Strongly suffixing	6-7	Plural suffix	SNegVO	Yes	Yes	Yes	No	Yes	No/No	**6**
Punjabi	Strongly suffixing	6	Plural suffix	SONegV	Yes	Yes	No	No	Yes	No/No	**4**
Russian	Strongly suffixing	6-7	Plural suffix	SNegVO	Yes	Yes	Yes	Yes	Yes	No/No	**7**
Spanish	Strongly suffixing	0	Plural suffix	SNegVO	No	Yes	Yes	Yes	Yes	Yes/Yes	
Swedish	Strongly suffixing	6-7	Plural suffix	SNegVO	Yes	Yes	Yes	Yes	Yes	Yes/Yes	**8**
Tagalog	Little affixation	0	Plural word	NegVSO	Yes	Yes	Yes	No	Yes	Yes/Yes	**5**
Turkish	Strongly suffixing	6-7	Plural suffix	Morph Neg	Yes	Yes	Yes	Yes	Yes	Yes/No	**6.5**
Urdu	Strongly suffixing	2	Plural suffix	SONegV	Yes	Yes	Yes	Yes	Yes	No/No	**6**
Yoruba	Little affixation	0	Plural word	SNegVO	No	Yes	Yes	Yes	No	No/No	**6**

Appendix M: Interview Questions

Vocabulary Task

- What do you think about when you see an unfamiliar word in Spanish?
- What do you think about when you see a word that looks like or sounds like a word in English?
- What do you think about when you see a word that looks like or sounds like a word in another language you speak?

Grammar Task

- What made you feel like a sentence was correct?
- What made you feel like a sentence was incorrect?
- What made you feel like you didn't know if a sentence was correct or incorrect?
- Did you translate the sentences to English in your head to help you make a decision?
- Did you translate the sentences to another language you speak in your head to help you make a decision?

General

- Does your teacher encourage you to use other languages in the Spanish classroom?
- If so, how does this make you feel?
- If not, how do you think this would make you feel?
- Do you think using other languages you speak would help you in the Spanish classroom?
- Why, or why not?

Appendix N: Codebook for interviews

Theme	Code	Definition	Example from transcripts
Emotions	Anxiety/Confusion	Feelings of unease/worry/or fear.	'They might feel a bit lost.'
	Boredom	Feelings of weariness/restlessness through lack of interest.	'There's just [shrugs] better things.'
	Embarrassment	Feelings of shame or shyness.	'Could be kind of embarrassing, if the teacher is like "oh *you* speak this language so do you know *this*?"'
	Interest	Feelings that accompany or cause special attention to something or someone.	'Coz [sic] if we were learning about Greek then I'd actually be more, like, encouraged in class and that.'
Linguistic transfer	Positive transfer	When the influence of the native language(s) leads to immediate/rapid acquisition/use of the target language.	'It was easier because it, like, linked the two together.'
	Negative transfer	When the influence of the native language(s) leads to errors in the acquisition/use of the target language.	'But it's different when I'm trying to learn both at the same time and like…it's just a bit confusing.'
Metalinguistic knowledge	Syntactic knowledge	The knowledge of how words can be combined in meaningful sentences/phrases/utterances.	'Which order of the words were used as well.'
	Word recognition	The ability to hear/see a word and comprehend its meaning.	'I just went through the words that I already knew, and then just did process of elimination.'
	Morphemic knowledge	The knowledge of word structure/how words are composed of one or more meaningful linguistic units.	'Because there's certain endings for words in Spanish, so if it ended in a weird letter that they don't really use in Spanish then it's probably not going to be real.'
Language learning contexts	At school	The process of language learning in a school environment.	'And if you're put in the language pathway you have to do the language, unless you opt out of it.'
	At home	The process of language learning in a home environment.	'But when my mum's on the phone I try to (…) decode it.'
	Online	The process of language learning in an online environment.	'I'm doing Duolingo, my streak's like 92 (…) so I can't stop at this rate.'

Appendix O: Transcript samples for Interviews 1, 2, and 3

Interview 1 - School A (EAL)

Interviewer: So when you see an unfamiliar word like this in Spanish, what do you usually think about or what do you feel?

Interviewee 1: Like, try and translate it, and if you can't translate it then it's probably, like, something that you might not understand or it might not be a Spanish word.

Interviewer: Ooh great okay, perfect. So translation, anything else?

Interviewee 2: Um, maybe like, nervous? Because if I can't work out one of the words then I might not like, get the meaning of the sentence.

Interviewer: Brilliant, yeah, that's a good point.

Interviewee 3: I guess just a bit confused.

Interviewer: Confused? Yeah, fair enough [laughs]. Okay, uh, what about then, so, in this list there are a couple of words like 'emocionante' or 'yogur' that look like English words. What do you think about when you're reading a sentence or you're looking at a word list like this and you see a word that looks or sounds like a word in English?

Interviewee 3: It's a lot easier to understand the sentence.

Interviewer: Brilliant, okay, so easier to understand.

Interviewee 2: Aren't they called, like, congrates [sic]?

Interviewer: Cognates, yeah! Words that look or sound like words in another language, excellent. Any other thoughts?

Interviewee 1: Um, work out if they are cognates or not. Or whether you recognise them in the context in both languages.

(...)

Interviewer: Do you think it might be helpful if teachers did make links between the other languages you speak?

Interviewee 3: Maybe not, I don't know.

Interviewer: Maybe not?

Interviewee 2: [shrugs]

Interviewer: Okay fair enough [laughs], why would you say not?

Interviewee 3: I'm not too sure, I don't know why but I guess it's just easier if they do it in English.

Interviewer: So just stick to two languages?

Interviewee 1: Adding in a third might just make it more, like, confusing I think.

Interviewer: Would you say the same? [directed at interviewee 2]

Interviewee 2: Yeah.

Interview 2 - School A (EL1)

Interviewer: So, when you were looking at these sentences, what helped you decide if a sentence was 'correct' or 'incorrect'? What did you look for?

Interviewee 1: Um, I looked for the way the grammar is.

Interviewer: Okay, what kind of grammar features did you look at?

Interviewee 1: The word order.

Interviewer: Ooh okay, brilliant. Anything else?

Interviewee 2: Like, if the endings agree.

Interviewee: Great, anything else that you looked for?

Interviewee 3: I just looked for spelling mistakes or if something looks wrong with it.

(...)

Interviewer: The other question I had was have you ever noticed your teacher asking other students about different languages they speak when you're in Spanish classes?

Interviewee 1: [shakes head]

Interviewee 2: On different cultures day.

Interviewer: Ah, okay, what kind of questions?

Interviewee 2: She was just like asking everyone where they were from, cause there's like an Italian person in our class who sometimes helps her with stuff.

Interviewer: Ah okay, so asking about languages that are similar to Spanish.

Interviewee 2: [nods]

Interview 3 - School B (Mixed, EAL interviewees bolded)

Interviewer: If you come across a word that sounds or looks like a word in Polish or in Greek, what is your thought process then?

Interviewee 1: Um [shrugs]

Interviewer: Similar to in English? Or different.

Interviewee 1: Bit similar.

Interviewer: Bit similar? Okay.

Interviewee 1: Well it's like, if you see like 'good morning' it automatically just says in my head oh that's proí *[translation note: morning]* in Greek.

Interviewer: Ah okay, so kind of similar-

Interviewee 1: Yeah.

Interviewer: -to in English then. Making the same links.

Interviewee 1: Little bit.

Interviewer: What about in Polish? I know they're quite far apart, aren't they?

Interviewee 3: Yeah [laughs]. I think sometimes, I think once I saw a word that was the same like, it was one word that was like different meaning but it looked the same.

Interviewer: Ah, confusing [laughs]

Interviewee 3: [laughs] Like I know it doesn't mean the same thing but…

Interviewer: But it throws you off a bit if you see it?

Interviewee 3: [nods]

(...)

Interviewer: so would you be interested in learning other languages even if you weren't gonna do a GCSE in them? But just having a chance to learn about them in class?

[cross talk] **Interviewee 1**: Yeah.

[cross talk] **Interviewee 3:** Absolutely.

[cross talk] Interviewee 2: Probably.

[cross talk] Interviewee 4: Yeah.

Interviewer: Is it kind of, better? To learn a language knowing that you don't have to do an exam in it?

All interviewees: [laugh] Yeah.

Interviewer: [laughs] Okay.

Interviewee 4: The pressure is off.

Interviewee 1: Yeah I was gonna say that.

Interviewer: Do you think if you had the chance to choose a language to learn kind of, alongside Spanish and French as the more official ones, without having to do a GCSE in it, do you think you'd want to do something like that?

[cross talk] Interviewee 4: Mmm, yeah.

[cross talk] **Interviewee 3:** Yeah.

[cross talk] Interviewee 2: Depends how long the course is. 'Cause if-

Interviewee 1: Oh, yeah.

Interviewee 2: -'cause it takes quite long to learn Spanish.

(...)

Interviewee 4: I've got Spanish Duolingo.

Interviewee 3: Sometimes I'll do Spanish Duolingo 'cause it's easy and I do it for the XP.

Interviewer: [laughs]

Interviewee 4: [laughs] Yeah I was this close to like being kicked off another league so…

Interviewee 1: I did it when I was younger and then I just gave up because it just kept annoying me.

Interviewer: Yeah they're quite persistent, the Duolingo owl.

Interviewee 4: Oh my god yeah!

Interviewee 1: Yeah because my mum is Welsh so she does it for Greek.

Interviewer: Oh that's nice.

Interviewee 1: But she still doesn't know anything in Greek, bless her.

Interviewer and other interviewees: [laugh]

References

Andrews, Richard. *Developing a Strategy for English as an Additional Language for the Teaching Workforce [IOE Research Briefing N°18]*. Institute of Education, University of London, 2013. Print.

Avgustinova, Tania. *Language Family Oriented Perspective in Multilingual Grammar Design*. 2007. 1st ed., Lausanne, Switzerland, Peter Lang Pub Incorporated, 2007, pp. 1–234.

Bardel, Camilla, and Ylva Falk. "The Role of the Second Language in Third Language Acquisition: The Case of Germanic Syntax." *Second Language Research*, vol. 23, no. 4, Oct. 2007, pp. 459–484, www-jstor-org.ezproxy-prd.bodleian.ox.ac.uk/stable/43103748, https://doi.org/10.1177/0267658307080557.

Bialystock, Ellen, et al. "Receptive Vocabulary Differences in Monolingual and Bilingual Children." *Bilingualism: Language and Cognition*, vol. 13, no. 4, 25 Nov. 2009, pp. 525–531, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/bilingualism-language-and-cognition/article/receptive-vocabulary-differences-in-monolingual-and-bilingual-children/862BDFDE7430A910B539A47D996CC35E, https://doi.org/10.1017/s1366728909990423.

Bialystok, Ellen, et al. "Developing Phonological Awareness: Is There a Bilingual Advantage?" *Applied Psycholinguistics*, vol. 24, no. 01, 21 Jan. 2003, pp. 27–44, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/applied-psycholinguistics/article/developing-phonological-awareness-is-there-a-bilingual-advantage/5030D1B995BB1DDA04398E070E6987FE, https://doi.org/10.1017/s014271640300002x.

Bowler, Megan. "A Languages Crisis?" Higher Education Policy Institute, 2020.

Carlisle, Joanne F., and Margaret M. Beeman. "The Effects of Language of Instruction on the Reading and Writing Achievement of First-Grade Hispanic Children." *Scientific Studies of Reading*, vol. 4, no. 4, Oct. 2000, pp. 331–353, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/abs/10.1207/S1532799XSSR0404_5, https://doi.org/10.1207/s1532799xssr0404_5.

Cenoz, Jasone. "The Additive Effect of Bilingualism on Third Language Acquisition: A Review." *International Journal of Bilingualism*, vol. 7, no. 1, 14 Mar. 2003, pp. 71–87, journals-sagepub-com.ezproxy-

prd.bodleian.ox.ac.uk/doi/epdf/10.1177/13670069030070010501, https://doi.org/10.1177/13670069030070010501.

Cenoz, Jasone. "The Influence of Bilingualism on Third Language Acquisition: Focus on Multilingualism." *Language Teaching*, vol. 46, no. 1, 15 June 2011, pp. 71–86, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/language-teaching/article/influence-of-bilingualism-on-third-language-acquisition-focus-on-multilingualism/EF22C832FD4EFEFD835DB6B11DB5CDD4, https://doi.org/10.1017/s0261444811000218.

Cervetti, Gina N., et al. "The Effects of Educative Curriculum Materials on Teachers' Use of Instructional Strategies for English Language Learners in Science and on Student Learning." *Contemporary Educational Psychology*, vol. 40, no. 1, Jan. 2015, pp. 86–98, www-sciencedirect-com.ezproxy-prd.bodleian.ox.ac.uk/science/article/pii/S0361476X14000605?via%3Dihub, https://doi.org/10.1016/j.cedpsych.2014.10.005.

Chung, Sheila Cira, et al. "The Relation between Orthographic Processing and Spelling in Grade 1 French Immersion Children." *Journal of Research in Reading*, vol. 41, no. 2, 24 Feb. 2017, pp. 290–311, onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/10.1111/1467-9817.12104, https://doi.org/10.1111/1467-9817.12104.

Cisero, Cheryl A., and James M. Royer. "The Development and Cross-Language Transfer of Phonological Awareness." *Contemporary Educational Psychology*, vol. 20, no. 3, July 1995, pp. 275–303, www-sciencedirect-com.ezproxy-prd.bodleian.ox.ac.uk/science/article/pii/S0361476X85710181, https://doi.org/10.1006/ceps.1995.1018.

Clark, D. "Percentage of Pupils Whose First Language Is Known or Believed to Be Other than English in England in 2022/23, by Region." *Statista*, Oct. 2023, www.statista.com/statistics/331675/england-region-english-additional-language/.

Cook, Vivian, and Benedetta Bassetti. *Second Language Writing Systems*. Bristol, United Kingdom, Multilingual Matters, 2005, www-degruyter-com.ezproxy-prd.bodleian.ox.ac.uk/document/doi/10.21832/9781853597954/html.

Costley, Tracey. "English as an Additional Language, Policy and the Teaching and Learning of English in England." *Language and Education*, vol. 28, no. 3, 20 Sept. 2013, pp. 276–292,

www.tandfonline.com/doi/abs/10.1080/09500782.2013.836215, https://doi.org/10.1080/09500782.2013.836215.

Crevecoeur, Yvel C., et al. "English Language Learners and English-Only Learners' Response to Direct Vocabulary Instruction." *Reading & Writing Quarterly*, vol. 30, no. 1, 15 Nov. 2013, pp. 51–78, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/10573569.2013.758943, https://doi.org/10.1080/10573569.2013.758943.

D'Angelo, Francesca, and Antonella Sorace. "The Additive Effect of Metalinguistic Awareness in Third or Additional Language Acquisition." *International Journal of Bilingual Education and Bilingualism*, vol. 25, no. 10, 2022, pp. 1–17, www.tandfonline.com/doi/full/10.1080/13670050.2022.2064710, https://doi.org/10.1080/13670050.2022.2064710.

Daniels, Peter T. "Writing and Writing Systems: Classification of Scripts." *The International Encyclopedia of Linguistic Anthropology*, 9 Nov. 2020, pp. 1–11, onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/epdf/10.1002/9781118786093.iela0409, https://doi.org/10.1002/9781118786093.iela0409.

Della Chiesa, Bruno, et al. *Languages in a Global World. Educational Research and Innovation*, Paris, OECD Publishing, 24 Apr. 2012, www-oecd-ilibrary-org.ezproxy-prd.bodleian.ox.ac.uk/education/languages-in-a-global-world_9789264123557-en.

Demie, Feyisa. "English Language Proficiency and Attainment of EAL (English as Second Language) Pupils in England." *Journal of Multilingual and Multicultural Development*, vol. 39, no. 7, Jan. 2018, pp. 641–653, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/01434632.2017.1420658, https://doi.org/10.1080/01434632.2017.1420658.

Department for Education. "GCSE New Grading Scale: Factsheets." *GOV.uk*, 20 June 2017, www.gov.uk/government/publications/gcse-new-grading-scale-factsheets.

Department for Education. "Schools, Pupils and Their Characteristics, Academic Year 2022/23." *GOV.uk*, Department for Education, 6 June 2024, explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics.

Dolas, Ferhat, et al. "Cognitive Advantages of Multilingual Learning on Metalinguistic Awareness, Working Memory and L1 Lexicon Size: Reconceptualization of Linguistic

Giftedness from a DMM Perspective." *Journal of Cognition*, vol. 5, no. 1, 2021, journalofcognition.org/articles/10.5334/joc.201#discussion, https://doi.org/10.5334/joc.201.

Durgunoğlu, Aydin Y., et al. "Cross-Language Transfer of Phonological Awareness." *Journal of Educational Psychology*, vol. 85, no. 3, 1993, pp. 453–465, oce-ovid-com.ezproxy-prd.bodleian.ox.ac.uk/article/00004760-199309000-00007/HTML, https://doi.org/10.1037/0022-0663.85.3.453.

Eurostat. "Foreign Language Learning Increases among EU Students." *Ec.europa.eu*, European Union, 26 Sept. 2023, ec.europa.eu/eurostat/web/products-eurostat-news/w/edn-20230926-1#:~:text=The%20majority%20of%20pupils%20in.

Falk, Ylva, and Camilla Bardel. "Object Pronouns in German L3 Syntax: Evidence for the L2 Status Factor." *Second Language Research*, vol. 27, no. 1, 22 Dec. 2010, pp. 59–82, journals-sagepub-com.ezproxy-prd.bodleian.ox.ac.uk/doi/10.1177%2F0267658310386647, https://doi.org/10.1177/0267658310386647.

Ferré, Pilar, and Marc Brysbaert. "Can Lextale-Esp Discriminate between Groups of Highly Proficient Catalan–Spanish Bilinguals with Different Language Dominances?" *Behavior Research Methods*, vol. 49, no. 2, 22 Mar. 2016, pp. 717–723, link-springer-com.ezproxy-prd.bodleian.ox.ac.uk/article/10.3758/s13428-016-0728-y, https://doi.org/10.3758/s13428-016-0728-y.

Finch, Katy, et al. "Teaching Modern Foreign Languages in Multilingual Classrooms: An Examination of Key Stage 2 Teachers' Experiences." *The Language Learning Journal*, vol. 48, no. 5, 25 Mar. 2018, pp. 1–15, doi.org/10.1080/09571736.2018.1448432, https://doi.org/10.1080/09571736.2018.1448432.

Flynn, Suzanne, et al. "The Cumulative-Enhancement Model for Language Acquisition: Comparing Adults' and Children's Patterns of Development in First, Second and Third Language Acquisition of Relative Clauses." *International Journal of Multilingualism*, vol. 1, no. 1, Jan. 2004, pp. 3–16, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/abs/10.1080/14790710408668175, https://doi.org/10.1080/14790710408668175.

Georgi, Ryan, and Fei Xia. "Comparing Language Similarity across Genetic and Typologically-Based Groupings." *Proceedings of the 23rd International Conference on Computational Linguistics*, Coling, 2010, pp. 385–393, www.researchgate.net/publication/221102963_Comparing_Language_Similarity_across_Genetic_and_Typologically-Based_Groupings.

Ginnis, Steven, et al. “Newly Qualified Teachers: Annual Survey 2017.” Department for Education, Sept. 2018.

Gottardo, Alexandra, et al. “Factors Related to English Reading Performance in Children with Chinese as a First Language: More Evidence of Cross-Language Transfer of Phonological Processing.” *Journal of Educational Psychology*, vol. 93, no. 3, 2001, pp. 530–542, oce-ovid-com.ezproxy-prd.bodleian.ox.ac.uk/article/00004760-200109000-00008/HTML, https://doi.org/10.1037/0022-0663.93.3.530.

Gutiérrez, Kris D., et al. “Rethinking Diversity: Hybridity and Hybrid Language Practices in the Third Space.” *Mind, Culture, and Activity*, vol. 6, no. 4, Jan. 1999, pp. 286–303, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/abs/10.1080/10749039909524733, https://doi.org/10.1080/10749039909524733.

Håkansson, G, et al. “Transfer and Typological Proximity in the Context of Second Language Processing.” *Second Language Research*, vol. 18, no. 1, 2002, pp. 250–73, www-jstor-org.ezproxy-prd.bodleian.ox.ac.uk/stable/43103628, https://doi.org/10.1191/0267658302sr206oa.

Hayashi, Yuko, and Victoria Murphy. “On the Nature of Morphological Awareness in Japanese–English Bilingual Children: A Cross-Linguistic Perspective.” *Bilingualism: Language and Cognition*, vol. 16, no. 1, 31 July 2012, pp. 49–67, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/bilingualism-language-and-cognition/article/on-the-nature-of-morphological-awareness-in-japaneseenglish-bilingual-children-a-crosslinguistic-perspective/8E491720B7A92C5D1C2576C95F5B2FA4, https://doi.org/10.1017/s1366728912000181.

Henderson, Leanne, and Janice Carruthers. “Socio-Economic Factors, School Type and the Uptake of Languages: Northern Ireland in the Wider UK Context.” *The Language Learning Journal*, vol. 50, no. 6, 10 Mar. 2021, pp. 1–20, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/epdf/10.1080/09571736.2021.1888151?needAccess=true, https://doi.org/10.1080/09571736.2021.1888151.

Hessel, Annina, and Victoria Murphy . “Understanding How Time Flies and What It Means to Be on Cloud Nine: English as an Additional Language (EAL) Learners’ Metaphor Comprehension.” *Journal of Child Language*, vol. 46, no. 2, 31 Oct. 2018, pp. 265–291, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/services/aop-cambridge-core/content/view/94D281477B29C4B484C0E8EC8AC388EA/S0305000918000399a.pdf/understanding-how-time-flies-and-what-it-means-to-be-on-cloud-nine-english-as-an-

additional-language-eal-learners-metaphor-comprehension.pdf, https://doi.org/10.1017/s0305000918000399.

Huang, Kuan-Jung. “On Bilinguals’ Development of Metalinguistic Awareness and Its Transfer to L3 Learning: The Role of Language Characteristics.” *International Journal of Bilingualism*, vol. 22, no. 3, 29 Nov. 2016, pp. 330–349, journals-sagepub-com.ezproxy-prd.bodleian.ox.ac.uk/doi/10.1177%2F1367006916681081#sec-6, https://doi.org/10.1177/1367006916681081.

Hutchinson, Jo. “Educational Outcomes of Children with English as an Additional Language.” The Bell Foundation, 2018.

Information Commissioner's Office. “Special Category Data.” *Ico.org.uk*, Information Commissioner’s Office, 19 May 2023, ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/lawful-basis/a-guide-to-lawful-basis/lawful-basis-for-processing/special-category-data/.

Izura, Cristina, et al. “Lextale-Esp: A Test to Rapidly and Efficiently Assess the Spanish Vocabulary Size.” *Psicológica*, vol. 35, no. 1, 2014, pp. 49–66, files.eric.ed.gov/fulltext/EJ1021970.pdf.

Jessner, Ulrike. *Linguistic Awareness in Multilinguals : English as a Third Language*. Edinburgh, Edinburgh University Press, 2006.

Ke, Chuanren. “Effects of Language Background on the Learning of Chinese Characters among Foreign Language Students.” *Foreign Language Annals*, vol. 31, no. 1, Mar. 1998, pp. 91–102, www.proquest.com/docview/1311687574?parentSessionId=Hu5coaL2%2Fvw2tCuhHLQ%2FXUUL26pXeaSGzm%2FXnafztDg%3D&pq-origsite=primo&accountid=13042&sourcetype=Scholarly%20Journals&imgSeq=1, https://doi.org/10.1111/j.1944-9720.1998.tb01335.x.

Kieseier, Teresa, et al. “Differential Effects of Metalinguistic Awareness Components in Early Foreign Language Acquisition of English Vocabulary and Grammar.” *Language Awareness*, vol. 31, no. 4, 18 July 2022, pp. 1–18, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/09658416.2022.2093888, https://doi.org/10.1080/09658416.2022.2093888.

Koda, Keiko. “Learning to Read across Writing Systems: Transfer, Metalinguistic Awareness, and Second-Language Reading Development.” *Second Language Writing*

Systems, by Vivian Cook and Benedetta Bassetti , Bristol, United Kingdom, Multilingual Matters, 2005, pp. 311–334, www-degruyter-com.ezproxy-prd.bodleian.ox.ac.uk/document/doi/10.21832/9781853597954/html.

Lee, Yan-Yi. "A Conceptual Analysis of Typological Distance and Its Potential Consequences on the Bilingual Brain." *International Journal of Bilingual Education and Bilingualism*, vol. 25, no. 9, 23 Mar. 2022, pp. 1–14, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/13670050.2022.2052790, https://doi.org/10.1080/13670050.2022.2052790.

Lemhöfer, Kristin, and Mirjam Broersma. "Introducing LexTALE: A Quick and Valid Lexical Test for Advanced Learners of English." *Behavior Research Methods*, vol. 44, no. 2, 5 Sept. 2011, pp. 325–343, www.lextale.com/pdf/Lemhofer_Broersma_2012.pdf, https://doi.org/10.3758/s13428-011-0146-0.

Lesaux, Nonie K., and Linda S. Siegel. "The Development of Reading in Children Who Speak English as a Second Language." *Developmental Psychology*, vol. 39, no. 6, 2003, pp. 1005–1019, oce-ovid-com.ezproxy-prd.bodleian.ox.ac.uk/article/00063061-200311000-00006/HTML, https://doi.org/10.1037/0012-1649.39.6.1005.

Lupyan, Gary, and Rick Dale. "Language Structure Is Partly Determined by Social Structure." *PLoS ONE*, vol. 5, no. 1, 20 Jan. 2010, p. e8559, journals.plos.org/plosone/article?id=10.1371/journal.pone.0008559#s4, https://doi.org/10.1371/journal.pone.0008559.

Lust, Barbara, and Maria Blume. "The Grammaticality Judgment Task." *Research Methods in Language Acquisition*, by Barbara Lust and Maria Blume, edited by Yuchin Chien et al., De Gruyter Mouton, 2017, pp. 155–166, www-degruyter-com.ezproxy-prd.bodleian.ox.ac.uk/document/doi/10.1515/9783110415339/html#contents.

Macaro, Ernesto, and Liz Masterman. "Does Intensive Explicit Grammar Instruction Make All the Difference?" *Language Teaching Research*, vol. 10, no. 3, July 2006, pp. 297–327, ora.ox.ac.uk/objects/uuid:c023b6e3-830d-4468-9733-079b2e78a7d6, https://doi.org/10.1191/1362168806lr197oa.

Maerten-Rivera, Jaime, et al. "Effect of a Multiyear Intervention on Science Achievement of All Students Including English Language Learners." *The Elementary School Journal*, vol. 116, no. 4, June 2016, pp. 600–624, www.journals.uchicago.edu/doi/10.1086/686250, https://doi.org/10.1086/686250.

Mancilla-Martinez, Jeannette , et al. “Assessing the Productive Vocabulary of Spanish–English Bilingual Toddlers from Low-Income Families.” *Applied Psycholinguistics*, vol. 32, no. 2, 25 Mar. 2011, pp. 333–357, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/applied-psycholinguistics/article/assessing-the-productive-vocabulary-of-spanishenglish-bilingual-toddlers-from-lowincome-families/331C0C9ADE699D9E0AAC7216A7A93A0C, https://doi.org/10.1017/s0142716410000433.

Marshall, Chloë R., and Angela Hobsbaum. “Sign-Supported English: Is It Effective at Teaching Vocabulary to Young Children with English as an Additional Language?” *International Journal of Language & Communication Disorders*, vol. 50, no. 5, 2015, pp. 616–28, www.ncbi.nlm.nih.gov/pubmed/25727445, https://doi.org/10.1111/1460-6984.12161.

Matuchniak, Tina, et al. “Examining the Text-Based, On-Demand, Analytical Writing of Mainstreamed Latino English Learners in a Randomized Field Trial of the Pathway Project Intervention.” *Reading and Writing*, vol. 27, no. 6, 12 Nov. 2013, pp. 973–994, link-springer-com.ezproxy-prd.bodleian.ox.ac.uk/article/10.1007/s11145-013-9490-z, https://doi.org/10.1007/s11145-013-9490-z.

Murphy, Victoria A. , and A. Unthiah. “A Systematic Review of Intervention Research Examining English Language and Literacy Developlment in Children with English as an Additional Language (EAL).” Education Endowment Foundation, 2015.

Nazari, Nastaran. “The Effect of Implicit and Explicit Grammar Instruction on Learners’ Achievements in Receptive and Productive Modes.” *Procedia - Social and Behavioral Sciences*, vol. 70, no. 1, Jan. 2013, pp. 156–162, www-sciencedirect-com.ezproxy-prd.bodleian.ox.ac.uk/science/article/pii/S1877042813000529, https://doi.org/10.1016/j.sbspro.2013.01.051.

Núñez Delgado, Pilar, and Maria Antonietta Pinto. *THAM-2 Test de Habilidades Metalingüísticas Nº 2*. Sapienza Università Editrice, 23 Dec. 2015, www.editricesapienza.it/sites/default/files/5292_08_Tham2_9-14_ES.pdf.

Office for National Statistics. “Ethnic Group (Detailed) Variable: Census 2021.” *Www.ons.gov.uk*, Office for National Statistics, Nov. 2023, www.ons.gov.uk/census/census2021dictionary/variablesbytopic/ethnicgroupnationalidentitylanguageandreligionvariablescensus2021/ethnicgroupdetailed.

Office for Standards in Education, Children's Services and Skills (Ofsted). “Research Review Series: Languages.” Ofsted, 7 June 2021.

Ofqual. “GCSE 9 to 1 Grades.” *GOV.UK*, 3 Mar. 2017, www.gov.uk/government/news/new-gcse-9-to-1-grades-coming-soon.

Olander, Thomas. *The Indo-European Language Family: A Phylogenetic Perspective*. Cambridge, United Kingdom, Cambridge University Press, 22 Sept. 2022, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/books/indoeuropean-language-family/4B44B5ACF0D3BBA89B9408050F112A52.

Oller, D. Kimbrough, and Rebecca E. Eilers. *Language and Literacy in Bilingual Children*. 1st ed., vol. 2, Clevedon, Multilingual Matters, 2002, ebookcentral.proquest.com/lib/oxford/detail.action?docID=3007702&pq-origsite=primo.

Olson, Carol Booth, et al. “Reducing Achievement Gaps in Academic Writing for Latinos and English Learners in Grades 7–12.” *Journal of Educational Psychology*, vol. 109, no. 1, Jan. 2017, pp. 1–21, psycnet-apa-org.ezproxy-prd.bodleian.ox.ac.uk/record/2016-21264-001?doi=1, https://doi.org/10.1037/edu0000095.

Oxford City Council. “First or Preferred Language Statistics.” *Oxford City Council*, Jan. 2021, www.oxford.gov.uk/population-statistics/first-preferred-language-statistics. Accessed 7 June 2024.

Oxley, Emily, and Cécile de Cat. “A Systematic Review of Language and Literacy Interventions in Children and Adolescents with English as an Additional Language (EAL).” *The Language Learning Journal*, vol. 49, no. 3, 11 Apr. 2021, pp. 1–23, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/09571736.2019.1597146, https://doi.org/10.1080/09571736.2019.1597146.

Paradis, Johanne. “Oral Language Development in French and English and the Role of Home Input Factors.” Conseil Scolaire Centre-Nord Edmonton, 2009.

Park, Mihi, and Rebecca L. Starr. “The Role of Formal L2 Learning Experience in L3 Acquisition among Early Bilinguals.” *International Journal of Multilingualism*, vol. 13, no. 3, Oct. 2015, pp. 274–291, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/14790718.2015.1088544, https://doi.org/10.1080/14790718.2015.1088544.

Parrish, Abigail. “Feminisation, Masculinisation and the Other: Re-Evaluating the Language Learning Decline in England.” *The Language Learning Journal*, vol. 51, no. 1, 16 Nov. 2021, pp. 1–18, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/09571736.2021.1989016, https://doi.org/10.1080/09571736.2021.1989016.

Pearson, Barbara Z., et al. “Lexical Development in Bilingual Infants and Toddlers: Comparison to Monolingual Norms.” *Language Learning*, vol. 43, no. 1, Mar. 1993, pp. 93–120, onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/abs/10.1111/j.1467-1770.1993.tb00174.x, https://doi.org/10.1111/j.1467-1770.1993.tb00174.x.

Pye, Julia, et al. “Newly Qualified Teachers: Annual Survey 2016.” Department for Education, 2016.

Qin, Kongji, and Lorena Llosa. “Translingual Caring and Translingual Aggression: (Re)Centering Criticality in the Research and Practice of Translanguaging Pedagogy.” *The Modern Language Journal*, vol. 107, no. 3, 17 Aug. 2023, pp. 713–733, onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/epdf/10.1111/modl.12868, https://doi.org/10.1111/modl.12868.

Ramirez, Gloria, et al. “Morphological Awareness in Spanish-Speaking English Language Learners: Within and Cross-Language Effects on Word Reading.” *Reading and Writing*, vol. 23, no. 3-4, 8 Oct. 2009, pp. 337–358, link-springer-com.ezproxy-prd.bodleian.ox.ac.uk/content/pdf/10.1007/s11145-009-9203-9.pdf, https://doi.org/10.1007/s11145-009-9203-9.

Reder, Fanny, et al. “Second-Language Learners’ Advantage in Metalinguistic Awareness: A Question of Languages’ Characteristics.” *British Journal of Educational Psychology*, vol. 83, no. 4, 11 Jan. 2013, pp. 686–702, bpspsychub-onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1111/bjep.12003, https://doi.org/10.1111/bjep.12003.

Robinson Anthony, Jonathan J.D., et al. “Language Dominance Predicts Cognate Effects and Metalinguistic Awareness in Preschool Bilinguals.” *International Journal of Bilingual Education and Bilingualism*, vol. 25, no. 3, 10 Mar. 2020, pp. 1–20, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/13670050.2020.1735990, https://doi.org/10.1080/13670050.2020.1735990.

Ronan, Patricia, and Evelyn Ziegler. *Language and Identity in Migration Contexts*. New York, Peter Lang, 2022.

Rothman, Jason. "L3 Syntactic Transfer Selectivity and Typological Determinacy: The Typological Primacy Model." *Second Language Research*, vol. 27, no. 1, 22 Dec. 2010, pp. 107–127, journals-sagepub-com.ezproxy-prd.bodleian.ox.ac.uk/doi/epdf/10.1177/0267658310386439, https://doi.org/10.1177/0267658310386439.

Satori, Miki. "The Interaction Effects of Language Proficiency and Language Analytic Ability on Explicit Deductive and Inductive Grammar Instruction." *The Journal of Asia TEFL*, vol. 21, no. 1, 31 Mar. 2024, pp. 1–17, journal.asiatefl.org/main/main.php?inx_journals=79&inx_contents=1216&main=1&sub=2&submode=3&PageMode=JournalView&s_title=The_Interaction_Effects_of_Language_Proficiency_and_Language_Analytic_Ability_on_Explicit_Deductive_and_Inductive_Grammar_Instruction, https://doi.org/10.18823/asiatefl.2024.21.1.1.1.

Schepens, Job J., et al. "The Effect of Linguistic Distance across Indo-European Mother Tongues on Learning Dutch as a Second Language." *Approaches to Measuring Linguistic Differences*, by L. Borin and A. Saxena, Berlin, Germany, De Gruyter, 2013, pp. 199–230.

Schepens, Job J., et al. "L1 and L2 Distance Effects in Learning L3 Dutch." *Language Learning*, vol. 66, no. 1, 8 Oct. 2015, pp. 224–256, onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/epdf/10.1111/lang.12150, https://doi.org/10.1111/lang.12150.

Schwartz, B.D, and R.A Sprouse. "Word Order and Nominative Case in Non-Native Language Acquisition: A Longitudinal Study of L1 Turkish:German Interlanguage." *Language Acquisition Studies in Generative Grammar: Papers in Honor of Kenneth Wexler from the 1991 GLOW Workshop*, by T Hoekstra and B.D Schwartz, Philadelphia and Amsterdam, John Benjamins, 1994, pp. 317–68.

Sepasdar, Mansoure, and Mohammad Rostampour. "The Effects of Syntactic vs. Semantic Feature Analysis of Words on Iranian EFL Learners' Reading Comprehension." *Frontiers in Education*, vol. 7, no. 1, 1 Dec. 2022, pp. 1–8, file:///Users/sarahcaro/Downloads/feduc-07-1035505.pdf, https://doi.org/10.3389/feduc.2022.1035505.

Serratrice, Ludovica, et al. "Bilingual Children's Sensitivity to Specificity and Genericity: Evidence from Metalinguistic Awareness." *Bilingualism: Language and Cognition*, vol. 12, no. 02, Apr. 2009, p. 239, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/bilingualism-language-and-cognition/article/bilingual-childrens-sensitivity-to-specificity-and-genericity-evidence-from-metalinguistic-awareness/20BCFB8C4773692515C3FEF1AE9EF0A5, https://doi.org/10.1017/s1366728909004027.

Sheng, Li, et al. "Lexical Development in Mandarin–English Bilingual Children." *Bilingualism: Language and Cognition*, vol. 14, no. 4, 7 Apr. 2011, pp. 579–587, www.cambridge.org/core/journals/bilingualism-language-and-cognition/article/abs/lexical-development-in-mandarinenglish-bilingual-children/F9822A3819411235FD0D296C98843220, https://doi.org/10.1017/s1366728910000647.

Sibieta, Luke. "The Latest Picture on School Funding and Costs in England." *Institute for Fiscal Studies*, The Institute for Fiscal Studies UK, Mar. 2024, ifs.org.uk/articles/latest-picture-school-funding-and-costs-england#:~:text=Following%20a%20substantial%20rise%20over.

Simard, Daphnée, et al. "Measuring Metasyntactic Ability among Heritage Language Children." *Bilingualism: Language and Cognition*, vol. 16, no. 1, 11 Nov. 2011, pp. 19–31, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/bilingualism-language-and-cognition/article/measuring-metasyntactic-ability-among-heritage-language-children/7CAC77F818FF6CCE57A76140D564F4EA, https://doi.org/10.1017/s1366728911000071.

Smith, Michael Sharwood. "The Cognitive Status of Metalinguistic Knowledge in Speakers of One or More Languages." *Bilingualism: Language and Cognition*, vol. 24, no. 1, 29 June 2020, pp. 185–196, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/bilingualism-language-and-cognition/article/cognitive-status-of-metalinguistic-knowledge-in-speakers-of-one-or-more-languages/E67FC0DEF8824DB6A2D1DAFD8E3234C3, https://doi.org/10.1017/s1366728920000371.

Smithson, Lisa, et al. "Bilingualism and Receptive Vocabulary Achievement: Could Sociocultural Context Make a Difference?" *Bilingualism: Language and Cognition*, vol. 17, no. 4, 4 Mar. 2014, pp. 810–821, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/bilingualism-language-and-cognition/article/bilingualism-and-receptive-vocabulary-achievement-could-sociocultural-context-make-a-difference/524C4CD52B9BB1DB1DF82A1D248B5098, https://doi.org/10.1017/s1366728913000813.

Soltero-González, Lucinda. "Preschool Latino Immigrant Children: Using the Home Language as a Resource for Literacy Learning." *Theory into Practice*, vol. 48, no. 4, Oct. 2009, pp. 283–289, https://doi.org/10.1080/00405840903192771.

Strand, Steve, et al. “English as an Additional Language (EAL) and Educational Achievement in
England: An Analysis of the National Pupil Database.” University of Oxford, Jan. 2015.

Supasiraprapa, Sarut. “Measuring Research Participants’ EFL Proficiency : What Practical Options Do Researchers in Thailand Have?” *The Journal of AsiaTEFL*, vol. 19, no. 1, 31 Mar. 2022, pp. 227–236, www-proquest-com.ezproxy-prd.bodleian.ox.ac.uk/docview/2655398212?pq-origsite=primo&sourcetype=Scholarly%20Journals, https://doi.org/10.18823/asiatefl.2022.19.1.14.227.

Szymczyk, Aleksandra, et al. “Othering through Language: English as an Additional Language in England’s Educational Policy and Practice.” *Studies in Ethnicity and Nationalism*, vol. 22, no. 2, Sept. 2022, pp. 117–131, onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/10.1111/sena.12372, https://doi.org/10.1111/sena.12372.

Tatsuya, Nakata, et al. “Examining the Validity of the LexTALE Test for Japanese College Students.” *The Journal of AsiaTEFL*, vol. 17, no. 2, 30 June 2020, pp. 335–348, www-proquest-com.ezproxy-prd.bodleian.ox.ac.uk/docview/2437320449?parentSessionId=DZ0B3xTsgVdBAYtC4cS3z59Z4t5XLH6ii%2BmVZHhr8l4%3D&pq-origsite=primo&accountid=13042&sourcetype=Scholarly%20Journals, https://doi.org/10.18823/asiatefl.2020.17.2.2.335.

Taylor, Florentina, and Emma J. Marsden. “Perceptions, Attitudes, and Choosing to Study Foreign Languages in England: An Experimental Intervention.” *The Modern Language Journal*, vol. 98, no. 4, 10 Nov. 2014, pp. 902–920, onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1111/modl.12146, https://doi.org/10.1111/modl.12146.

Torregrossa, Jacopo, et al. “Boosting Bilingual Metalinguistic Awareness under Dual Language Activation: Some Implications for Bilingual Education.” *Language Learning*, vol. 73, no. 3, 14 Dec. 2022, onlinelibrary-wiley-com.ezproxy-prd.bodleian.ox.ac.uk/doi/10.1111/lang.12552, https://doi.org/10.1111/lang.12552.

Tunmer, William, and Michael Herriman. “The Development of Metalinguistic Awareness: A Conceptual Overview.” *Springer Series in Language and Communication*, vol. 15, no. 1, 1984, pp. 12–35, https://doi.org/10.1007/978-3-642-69113-3_2.
UK Government. “Compare School and College Performance.” *Find and Compare Schools in England*, UK Government, 2023, www.compare-school-performance.service.gov.uk/.

Vaismoradi, Mojtaba, et al. “Theme Development in Qualitative Content Analysis and Thematic Analysis.” *Journal of Nursing Education and Practice*, vol. 6, no. 5, 15 Jan. 2019, pp. 100–110, nordopen.nord.no/nord-xmlui/bitstream/handle/11250/2386408/Vaismoradi.pdf?seque, https://doi.org/10.5430/jnep.v6n5p100.

Verhoeven, Ludo. “Early Bilingualism, Language Transfer, and Phonological Awareness.” *Applied Psycholinguistics*, vol. 28, no. 3, 11 June 2007, pp. 425–439, www-cambridge-org.ezproxy-prd.bodleian.ox.ac.uk/core/journals/applied-psycholinguistics/article/early-bilingualism-language-transfer-and-phonological-awareness/B0277714D3DA50B962B8F4F691A44099, https://doi.org/10.1017/s0142716407070233.

Vidal Rodeiro, Carmen. “The Study of Foreign Languages in England: Uptake in Secondary School and Progression to Higher Education.” *Language, Culture and Curriculum*, vol. 30, no. 3, 24 Mar. 2017, pp. 231–249, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/07908318.2017.1306069, https://doi.org/10.1080/07908318.2017.1306069.

Wang, Min, et al. “Alphabetic Readers Quickly Acquire Orthographic Structure in Learning to Read Chinese.” *Scientific Studies of Reading*, vol. 7, no. 2, Apr. 2003, pp. 183–208, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/abs/10.1207/S1532799XSSR0702_4, https://doi.org/10.1207/s1532799xssr0702_4.

Wang, Min, et al. “Korean-English Biliteracy Acquisition: Cross-Language Phonological and Orthographic Transfer.” *Journal of Educational Psychology*, vol. 98, no. 1, 2006, pp. 148–158, oce-ovid-com.ezproxy-prd.bodleian.ox.ac.uk/article/00004760-200602000-00012/HTML, https://doi.org/10.1037/0022-0663.98.1.148.

Woll, Nina. “How French Speakers Reflect on Their Language: A Critical Look at the Concept of Metalinguistic Awareness.” *Language Awareness*, vol. 28, no. 1, 2 Jan. 2019, pp. 49–73, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/09658416.2019.1567743, https://doi.org/10.1080/09658416.2019.1567743.

Woll, Nina. “Investigating Dimensions of Metalinguistic Awareness: What Think-Aloud Protocols Revealed about the Cognitive Processes Involved in Positive Transfer from L2 to L3.” *Language Awareness*, vol. 27, no. 1-2, 31 Jan. 2018, pp. 167–185, www-tandfonline-com.ezproxy-prd.bodleian.ox.ac.uk/doi/full/10.1080/09658416.2018.1432057, https://doi.org/10.1080/09658416.2018.1432057.

Ziegler, Johannes C., et al. “Orthographic Depth and Its Impact on Universal Predictors of Reading.” *Psychological Science*, vol. 21, no. 4, 18 Feb. 2010, pp. 551–559, journals-sagepub-com.ezproxy-prd.bodleian.ox.ac.uk/doi/epdf/10.1177/0956797610363406?src=getftr&, https://doi.org/10.1177/0956797610363406.