# How special are early birds? 

Foreign language teaching and learning

Edited by
Kevin McManus
Monika S. Schmid

## EuroSLA Studies

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Studies in honour of Florence Myles


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## Preface

Li Wei<br>UCL Institute of Education, University College London

Vivian Cook, who throughout the years was a close colleague of Florence Myles' in various roles and capacities, was meant to be writing this Preface. Sadly, Vivian passed away after a battle with illness on $10^{\text {th }}$ December 2021. I have no doubt that Vivian would have endorsed the tributes friends and colleagues of Florence Myles' are paying through their contributions to this special volume. He would also, I am certain, have recalled the "golden age of SLA at Newcastle". Both Florence and Vivian joined Newcastle University in 2004. I was Head of School of Education, Communication and Language Sciences at the time, and recruited Vivian from Essex. I was also on the interview panel that appointed Florence to the professorship in French linguistics in the School of Modern Languages. With their appointments, as well as several others at different levels and in different departments, Newcastle had an impressive critical mass of researchers in second language acquisition. And Florence, who later led the cross-school Centre for Research in Linguistics and Language Sciences, was instrumental in not only spearheading SLA research at Newcastle but also facilitating much more interactions and collaborations across a range of areas of theoretical and applied language research.
What has become a hallmark of Florence's work is her ability to connect linguistic theories with empirical and pedagogical issues in language teaching and learning. It is clear from the numerous publications she has produced over the years that Florence is especially interested in second language learning in the school context. She has researched the development of second language vocabulary, morpho-syntax, formulaic expressions, narrative through classroom-based teaching, and analysed the data with a range of different theoretical approaches including generative, corpus, and psycholinguistic approaches. Few scholars in SLA have shown the breadth that Florence has in her work. But she has done so without shouting out what has become a rather meaningless word "interdisciplinary". Florence has also researched task complexity and variability, as well

/lllil
as the impact of technology, the study abroad experience and the development of criticality through language learning.

Florence has led many research projects, funded by competitive grants from agencies such as the ESRC, AHRC and the British Academy, as well as the European Commission. Through these projects, she has built large online databases of learner language oral corpora, especially French and Spanish as second languages, which have become key resources for research and curriculum design. Her work is characteristically collaborative, and she has worked with researchers in many different institutions and countries.

A considerable amount of Florence's work focuses on young learners and the school curriculum. Here, her work not only deals with key theoretical topics such as age, individual differences, cross-linguistic transfer and morpho-syntactic processing, but also import policy and practice issues such as learner motivation and creativity and culture in the language curriculum. Florence's work reinforces the importance of research in developing policies and practices that work in schools and classrooms, including developing language pedagogies that are appropriate for young learners.

Second language acquisition research is a thriving field across the world. A great deal of work, though, is on acquiring English as a second or foreign language by speakers of other languages. Research on the acquisition of other languages by English-speaking learners that is simultaneously theoretically motivated, deeply-rooted in data, and has a focus on implications for policy and practice, as exemplified in Florence's career-long work, is rather rare and so needed. We owe Florence a big debt of gratitude for her inspiring work. May the present volume be a small but good token of that!

## Chapter 1

# Introduction and overview of the volume 

Kevin McManus ${ }^{\text {a }}$ \& Monika S. Schmid ${ }^{\text {b }}$<br>${ }^{a}$ Penn State University ${ }^{\text {b }}$ University of York

This volume is a celebration of the academic achievements and scholarship of Professor Florence Myles as a world-leading scholar in the fields of Second Language Acquisition (SLA) and French Linguistics, and in particular for her work in corpus-based SLA and, more recently, language policy in primary school education. As Li Wei highlights in his Preface to the volume, Florence is a prolific researcher and leader whose work has helped change and shape the field of SLA for decades (see also Roger Hawkins' Postscriptum). For example, the ground-breaking work on the creation and development of the French Learner Language Oral Corpora (FLLOC) ${ }^{1}$ project which Florence has conducted with her long-standing collaborator Professor Rosamond Mitchell has provided a crucial resource to support many studies into the development of French interlanguage. This impressive collection of openly accessible learner corpora now houses nine rich datasets, many of which are the direct result of grants that Florence held at various times (e.g., Linguistic Development Corpus, Newcastle Corpus, Young Learners Corpus). The compilation and publication of these corpora constitutes a major innovation in the field. Indeed, through this work, Florence and Ros showed how making research data openly available and easily accessible can support collaboration and help our understanding of learner languages to develop. Florence's dedication to making research data accessible to all has not only been a hallmark of her work but inspired many others to follow suit. Florence's collaborations with researchers working on the acquisition of other languages

[^0](e.g., Laura Domínguez) have paved the way for other repositories of open data, including the Spanish Learner Language Oral Corpora (SPLLOC) ${ }^{2}$ project.

A critical impact of Florence's work on language learning in primary schools, primed by her ESRC grant "Learning French from ages 5, 7 and 11: An investigation into starting ages, rates and routes of learning amongst early foreign language learners", can be seen in her work on language learning policy. A recent example of this is a joint response article to the Ofsted curriculum research review, which she co-authored with Alison Porter, Suzanne Graham, and Bernardette Holmes (Porter et al. 2022). This paper contains evidence-based recommendations advocating for a more holistic and nuanced approach to language education that is centred around opportunities to actively communicate in the language and supported by rich and plentiful input. The evidence base underpinning these recommendations for supporting primary languages education arose from the Research in Primary Languages (RiPL) ${ }^{3}$ network, which Florence founded, and is chair of. Today, RiPL is an impressive collaboration of researchers, teachers, teacher educators, and policy makers with interests in research in primary languages. Florence's dedication to community building is further evident in her pioneering role in establishing research centres at various institutions (such as the Centre for Research in Linguistics and Language Sciences at Newcastle University, and the Centre for Research in Language Development throughout the Lifespan at the University of Essex) have provided a framework and structure in which scholars across disciplines come together, work together, discover synergies and commonalities in their research and disseminate their findings to experts and laypeople alike.

Being a research leader is a continuous characteristic of Florence's career, and her activities in these areas include such roles as president of the European Second Language Association (EuroSLA), the editor of the fournal of French Language Studies (published by Cambridge University Press), and membership on the Editorial Board of journals such as Second Language Research, Language Teaching, the EuroSLA Yearbook series, and the Revue Française de Linguistique Appliquée. She is also co-author of the internationally best known and most widely used textbook on SLA, Second Language Learning Theories (with Rosamond Mitchell and Emma Marsden), now in its 4th edition. In addition, Florence has supervised a large number of PhD students over the years, conducting theses in a range of topics and areas in the field of language learning, and provided support and mentorship to many more young scholars.

[^1]All of these activities underline the one characteristic that probably defines Florence most clearly, alongside her brilliance as a researcher on language learning and language policy and her dedication towards her teaching, and that is her immense generosity of spirit. Throughout her career, she not only has been a team player, but she has never shied away from taking on the hard and sometimes thankless tasks that were needed - by the departments in which she worked, by the associations and publications supporting and disseminating research, and by the field at large - for others to thrive. Most of the contributors to this volume, and probably a fair proportion of its readers, will at one time or another have benefitted from her marvelous hospitality and been uplifted by her cheerful kindness.

As the chapters in this volume demonstrate, Florence's impact on the field of language learning are far-reaching and considerable. This collection speaks not only to the diversity of her scholarship, but also to the ways in which she has always gone the extra mile in her efforts to mentor and collaborate with others.

The volume begins with a chapter authored by Bernardette Holmes and Angela Tellier, who show how languages policy can benefit from research. In particular, they highlight the major contribution that Florence Myles has made to our understanding of cognitive development in middle childhood, and how this affects children's learning of a second or foreign language in instructed settings. In addition to presenting an overview of language policy over the last century, Holmes and Tellier show that the synergy between research and policy has rarely been optimised, and that perennial questions about the why, when, what, and how of primary languages have yet to be fully addressed. The chapter concludes by illustrating how Myles' specific contribution and her vision for research-informed practice for primary languages have created dialogue between researchers and policy makers in recent years, in particular through the establishment of the RiPL network.

In the next chapter, Rosamond Mitchell and Sarah Rule, two of Florence's longstanding collaborators, bring together evidence from the ESRC-funded study "Learning French from ages 5, 7 and 11", (Myles et al. 2012, Myles 2017) regarding the development of target language vocabulary knowledge by early learners over a year's instruction in French as a foreign language. The data analysed includes lesson plans, video recordings and transcriptions of complete lessons, as well as receptive vocabulary tests constructed to systematically sample the vocabulary actually taught. The chapter draws conclusions about that the rate of progress in vocabulary learning in a constrained classroom context and highlights the factors which seem to promote development most consistently.

With a focus on the contributions of research to the professional development of language teachers, Alison Porter and Suzanne Graham outline what is currently known about primary school teachers' knowledge and beliefs about language pedagogy and what research-informed principles might be important for them to know and understand. They then present data from an online training initiative designed to develop teachers' understanding of primary languages pedagogy and practice. The chapter concludes by considering the implications of the study for models of primary school language teacher development and areas for future research.

In the chapter by Rowena Kasprowicz, Karen Roehr-Brackin, and Gee Macrory, the key questions are about the place of form-focused instruction and the related debate about the role of metalinguistic awareness among young learners. The authors begin by outlining conceptualisations of metalinguistic awareness, followed by a summary of key empirical studies investigating child learners' metalinguistic abilities. Then, analyses are presented that speak to the question of whether explicit grammar instruction can effectively develop young learners' verbalisable metalinguistic knowledge. This chapter concludes by integrating these findings with previous work in order to highlight the level of metalinguistic awareness which primary-school children are able to develop in instructed settings.

In the following chapter, Emmanuelle Labeau and Raquel Tola Rego provide an overview of the Primary Languages landscape in England and present the best practice case of Hackney Education with special attention to its recent Content and Language Integrated Learning (CLIL) developments. The authors argue that a CLIL approach has the potential to address the challenges of implementing the national Modern Foreign Languages (MFL) entitlement at primary level by reducing the timetabling constraints, expanding the teacher pool, and adapting to children's cognitive development. In concluding, this chapter shows how the CLIL approach fits the cognitive development - as identified by the Research in Primary Languages (RiPL) project - of primary school pupils who learn implicitly, by being immersed in the language and using it.

Kevin McManus and Brody Bluemel present findings from a recent study on dual language immersion programs in the United States. That study investigated teachers' instructional practices in English-Chinese and English-Spanish kindergarten DLI classrooms using video, audio, and observation data. Their results indicated important differences and similarities for (i) teachers' language use in the different classrooms and (ii) teachers' instructional practices in the different languages. Using these data, teachers' instructional practices, the availability and
type of instructional input, and their impact on opportunities for learning are discussed as ways to inform decisions about subject content teaching and language development in dual language classrooms.

In the next chapter, Victoria Murphy and Hamish Chalmers provide an overview of recent discussions about the benefits of being bilingual, including improved executive function and inter-cultural understanding. In the field of foreign language education, related research has, quite understandably, focused on the implications of being bilingual on the teaching and learning of a foreign language itself. Their chapter explores the small body of work that speaks to whether and to what extent knowing more than one language can impact academic achievement, literacy, metalinguistic awareness, employment opportunities, and so on. Using this basis, the authors identify some of the methodological issues that make interpreting work of this type problematic, and set forth a research agenda to more rigorously address this important area of inquiry.

In the final chapter, Laura Domínguez and María J. Arche present ongoing work on the emergence and development of null and overt subjects in L2 Spanish, by English-speaking learners. The oral data for this study were collected using a paired discussion task and a story retell and are freely available from the SPLLOC project. ${ }^{4}$ The authors claim that the cline of difficulty suggested by Cho \& Slabakova (2014), based on whether L1-L2 form-meaning mismatches require reassembly and whether a dedicated morpheme is available, makes appropriate predictions for these structures. It is also argued that the type of task used to elicit the oral data and the overall linguistic and narrative abilities of the learners are also likely to influence the rate of use of these forms.

Taken together, the work presented in this volume speaks to the influence of Florence Myles's work in many different areas of SLA research, including theorybuilding, corpus-based investigations, studies of language development, as well as informing teacher professional development through research. We invite readers to learn more about the fascinating research presented here as inspired by Florence's dedication to field!

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## Chapter 2

## The role of research in primary languages policy in the UK: The journey from policy to practice

Bernardette Holmes ${ }^{\text {a }}$ \& Angela Tellier ${ }^{\text {b }}$<br>${ }^{\mathrm{a}}$ Co-chair of the Research in Primary Languages Network ${ }^{\mathrm{b}}$ University of Essex

To celebrate the extensive professional achievements of Professor Florence Myles, we are seeking to illustrate how languages policy can benefit from research. In particular, we want to highlight the major contribution that she has made to our understanding of cognitive development in middle childhood, and how this affects children's learning of a second or foreign language in instructed settings. We will argue that languages education policy should involve regular government funded research both to inform policy design and to monitor and support its implementation. In the earlier parts of the chapter, we will revisit key periods in the history of language policy over the last hundred years, and review a number of political documents on language policy between 1918 and 2014. We will show that the synergy between research and policy has rarely been optimised, and that perennial questions about the why, when, what, and how of primary languages have yet to be fully addressed taking full account of research findings. We will assert that this disconnection between policy and what we know about language learning can lead to false starts and unnecessary setbacks. We will then illustrate how the specific contribution of Myles and her vision for how to develop research-informed practice for primary languages, have contributed to creating a positive dialogue between researchers and policy makers in recent years, in particular through the establishment of the Research in Primary Languages Network (RiPL) which draws together leading academics and policy developers with practitioners and decision makers at local and national levels.

## 1 Lessons from the past

Revisiting the history of languages policy in UK primary schools ${ }^{1}$ reveals the inherent risks of policy makers repeating the same mistakes, if account is not taken of past experience, research and scholarship. The key periods and publications that demand particular attention are (please see bibliography for further details):

- the Leathes report (Leathes 1918)
- the Annan Committee Report (Annan 1962)
- the Nuffield Pilot Scheme for the teaching of French (1964-1974) (Burstall 1975), a longitudinal cohort study of children learning primary French in England and Wales, and the Burstall Report NFER (Burstall et al. 1974)
- the Plowden report (Central Advisory Council for Education (England) 1967)
- the Education Reform Act (DfES 1988) and the introduction of the national curriculum
- the Nuffield Languages Inquiry (The Nuffield Foundation 2000)
- Languages for all: Languages for Life - A Strategy for England (DfES 2002) ${ }^{2}$

[^3]- the Key Stage 2 Framework for Languages (DCSF 2005)
- the Pathfinder projects (2003-2005) DfES (Muijs et al. 2005)
- the introduction of the statutory requirement to teach a foreign language from the age of seven (DfE 2014)

It is curious, but, in hindsight, predictable, that the earliest of these, the Leathes Report (Leathes 1918) on the role of modern languages in the modernisation of education, published more than a century ago and described as the Magna Carta of language teaching (Byram 2021), should reflect a striking similarity with concerns that continue to preoccupy the current administration of England and, indeed, to a greater or lesser extent, those of the devolved nations of the UK. Further scrutiny of policy initiatives relating to primary education show that over the last hundred years, policy makers appear to have been vexed by the same questions with regard to primary languages policy and its implementation. These questions break down into four distinct but interrelated categories. In simple terms, they address the why, when, what, and how of primary languages in national curricula.

### 1.1 Why teach primary languages?

The first of these questions: Why teach primary languages? invites us to reexamine the rationales given by particular administrations for the perceived importance, or otherwise, of the early introduction of the learning of a language other than English, which we will reference in this chapter using the terms "primary languages" or "modern languages". It will be seen that modern languages education in general has been closely affected over the last century by its specific political context and has tended to be influenced by the nature of the UK's relations with other countries of Europe and around the world.

In the midst of the First World War, Herbert H. Asquith, Liberal politician and Prime Minister 1908-1916, commissioned a committee, chaired by the First Commissioner of the British civil service, Stanley Leathes:
to enquire into the position occupied by the study of Modern Languages in the educational system of Great Britain, especially in Secondary Schools and Universities, and to advise what measures are required to promote their study, regard being had to the requirements of a liberal education, including an appreciation of the history, literature and civilisation of other countries, and to the interests of commerce and public service (Leathes 1918: 1).

These terms of reference thus distinguish two purposes of language teaching, a "liberal education" on the one hand and the "interests of commerce and public service" on the other (Byram 2014). It can be argued that this duality of purpose in language study still bedevils the languages community to this day and raises a number of unresolved questions. Is language study largely instrumental and transactional, serving the needs of "commerce and public service", terms that would probably be replaced today by "the needs of the economy, and of diplomacy"? Or is language study much broader in its reach, more aligned to the humanities, providing insight into other cultures, their history, beliefs and values, referenced in today's curricula as intercultural understanding or cultural capital? Can both ambitious purposes be met? And if these are the rationales given for language study in secondary education and the universities, what are the implications for early language learning? Is there a place for languages in the primary school curriculum, and if there is, what are the parameters and expectations for the subject? And, more importantly, do they take full account of the most relevant research into how early language learners of a new or foreign language learn most effectively?

### 1.1.1 Languages in the curriculum: Communication skills versus humanities?

The inherent tension between these different rationales is evident in the Leathes Report, a tension that has created confusion over the position and purpose of languages as a subject of study in school and university curricula for more than a century. As language educators, it is important to answer the question whether the study of a modern language is a skill responding to the instrumental agenda, increasingly driven by the language needs of globalisation, or a discipline, responding more closely to the humanities (Canning 2009) critically exploring the development of cultures and societies, or both. Evidence over time shows that decisions made in formulating answers to this question deeply affect primary languages policy and curriculum development, and are affected by the historical, social and cultural context.

This becomes evident from the Leathes Report: the practical and instrumental advantages of language study as a skill had been thrown into sharp relief in 1916 by the First World War, when it was suggested that poor language skills might have been responsible for the failure to understand the reasons for discontent which had led to the conflict in the first place (Bayley 1991). Among other persuasive arguments for the practical and diplomatic value of languages skills, Leathes furthermore provided a strong case why the business world should take modern languages seriously. Having consulted relevant government departments, the

Leathes committee turned its attention to the business community, including the Chambers of Commerce. Firms contributing case studies to the Leathes commission reported hiring international recruits in a range of key positions when dealing with international trade due to a lack of language skills among British employees. The report cites an example of German firms securing the distribution trade in South America, even when British goods were concerned, because the Germans took the pains to learn Spanish, and concludes that "[w]ith such examples before us we can hardly afford to wait till all the world has formed the habit of talking English." (Leathes 1918)

A century later, in 2016, a similar landscape was still in evidence. Born Global, a policy research project of the British Academy into languages and employability, found that international recruits speaking multiple languages had a distinct advantage in the global labour market over their monolingual British peers. It would seem that no one in the UK heeded Leathes' timely warning in 1918. Leathes could not have predicted the rapid rise of English as a global language over recent decades which has paradoxically adversely and advantageously influenced the teaching of modern languages in Anglophone countries. The enduring message remains that learning English as an additional language is an advantage; speaking only English is a significant limitation.

### 1.1.2 Political imperatives driving policy change

It was not until the 1960s and the context of the Cold War that we see a renewed government interest in languages capability and the need for a deeper understanding of other international forces in the global arena, which led to the commissioning of a report on the teaching of Russian by a committee chaired by Lord Annan. Based on the recommendations of this report that "it would be advantageous if the regular teaching of a first foreign language were started in good conditions and by the right methods in the primary school" (Annan 1962), a Pilot Scheme, henceforth referred to as the Nuffield pilot scheme, for teaching French in primary schools was established in England and Wales. Three cohorts of pupils were followed for ten years in order to assess the feasibility and educational desirability of introducing foreign language teaching to a broader range of pupils.

It is pertinent to note that at the time of the Nuffield Pilot Scheme, the UK was embroiled in its efforts to join the EEC (European Economic Community), to which it first applied in 1961. The UK applications had been vetoed twice by the then French president, Charles de Gaulle, in 1963 and again in 1967. With De Gaulle's departure from the presidency in 1969, the UK made its third application
for membership. Georges Pompidou proved to be more amenable, and in 1973, Sir Edward Heath took the UK into the European Community, and, by public referendum in 1975, the British public voted to remain in the EEC. At that time, the general public had a keen interest in Europe. With this interest came support for early language learning; parents wanted their children to learn languages (Burstall 1975). The final report on this scheme (Burstall et al. 1974), however, concluded that there was no evidence for any advantage conferred by an early start to language learning, resulting in the withdrawal of government funds (Tellier 2019). The reasons for the perceived failure of the pilot and the lessons that should have been learned will be discussed later.

Similar political imperatives surrounding entry into Europe drove policy change in Scotland. Throughout the late sixties and seventies, Scotland, like England, had experienced challenges in its efforts to introduce primary languages (Johnstone 1996). Clark observes that a report by HM Inspectorate on the introduction of French into primary schools in Scotland in the 1960s noted that there was a lack of continuity on transition to secondary school and that many primary teachers lacked sufficient competence in the language (Clark \& Munn 1997). This did not deter the government backing a further national pilot programme in Scotland on Modern Languages in Primary Schools in the late 1980s (Johnstone 1996). This interest was stimulated by the prospect of entering the European Single Market, which was established in 1992, and underpinned by the belief shared by politicians in Scotland that the introduction of early language learning would in time improve the competitiveness of Scottish businesses (Johnstone 1996) - an interest shared across England and Wales.

### 1.1.3 Building national capability in language skills

The Education Reform Act (DfES 1988) had already established the study of modern foreign languages as a foundation subject for children aged between 11 and 16, in key stages 3 and 4 for England and Wales. The Department for Education and Skills (DfES) published its intentions for modern languages in the curriculum for England and Wales in 1988. These stated ambitions had much in common with current policy in their aim to build national capability in language skills. The rationale for language learning was "founded on the belief that education at school can and should have lasting and beneficial effects on the prosperity and well-being of individuals and the nation" (DfES 1988:1). The focus was firmly set on language as skills that are "worthwhile" for individuals and that can be "put to use by people at work or in their personal lives, at home and abroad". In the
same spirit, a National Curriculum Working Group for England and Wales recommended that primary languages should be more widespread (while holding back from recommending including them in the national curriculum):

> We firmly believe that it is now desirable to identify the steps which need to be taken to make widespread teaching of modern foreign languages in primary schools possible, and we have noted the recommendations of the House of Lords Select Committee ... to this effect (DfES 1990: para 3.13).

Head teachers were also largely in favour of this recommendation and at the National Association of Head Teachers' conference in 1992, a resolution was made calling for the introduction of primary languages into the curriculum (Satchwell 1996). The "groundswell of renewed interest" described by Satchwell (1996) was engendered by the prospect of Britain in Europe and the need to build capacity in language skills from an early age.

### 1.1.4 Proficiency in language skills versus intercultural competence

In recent policy decisions in England, it would seem that little regard has been taken of research into the cognitive development of children in middle childhood in relation to the most appropriate approach to early language learning and to whether proficiency or intercultural competence should be the main drivers of curriculum content (Myles 2017).

Considerations of the rationale for learning modern languages over time, reveal that the apparent duality of purpose of the subject discipline risks pitting the development of language skills against the study of cultural content. History shows that it is the strength of the instrumental argument, resting on the economic case and the employability agenda that policy makers at national and local levels have found most persuasive. As a result, the study of languages, particularly in the school curriculum, tends to be positioned firmly as a skill. Based on this argument, the impetus for early language learning has rested on the assumption that an early start will provide a faster route to language competence in one or more new languages in addition to the mother tongue, and that this will increase our national capability in languages, and arising out of this, we will see increases in GDP (Gross Domestic Product), international trade and wider UK engagement in international relations.

To some extent, the rationales for language learning across the UK over many decades have made some attempt to rebalance the stated purposes of language study, and in addition to the value of languages to the economy and international
trade, have commonly referred to the importance of languages in developing positive attitudes to others and greater openness to cultural diversity (Leathes 1918, DES 1987, DES \& The Welsh Office 1991, The Nuffield Foundation 2000, DfES 2002, DCSF 2005). We see this purpose firmly enshrined in the current programmes of study for languages in England, Wales, Scotland and Northern Ireland.

Recall that for Leathes, the role of language learning in the development of culture was a strong feature in his policy recommendations (Leathes 1918). Leathes argued compellingly for modern languages "as a means to general education and culture" as well as a practical skill (Leathes 1918: (v) 53). Making no apology for putting "practical ends first", the report makes clear that the study of modern foreign languages should be "the study of modern peoples in any and every aspect of their national life." It went further in its definition, stating that "the study of languages is, except for the philologist, always a means and never an end in itself" (Leathes 1918: 1 Definitions (b)).

Within this context, it is instructive to reflect on the breadth of Leathes' definition of "culture", which prompts us to clarify how national programmes of study have defined and addressed culture, and how it fits into the conceptualisation of language learning. This has implications for how and what teachers teach in the languages curriculum.

Such reflections suggest that despite early and continued recognition of the cultural contribution of languages in language policy statements, it has remained very much a secondary consideration. This is reflected in the National Curriculum for England and Wales (DfES 1988), which strongly emphasised the economic benefit of supporting the UK as a member of the European Union and stated that "opportunities will be opened up for trade, tourism, international relations, science and other fields" (DfES 1988: 1). Similarly, in 2000, the Nuffield Inquiry focused firmly on the assumed benefits of an early start to language learning to improving standards and national capability, assigning a similarly secondary role to the value of language learning to personal, social and cultural development and intercultural understanding. The Inquiry Committee, under the joint chairmanship of Sir Trevor McDonald OBE and Sir John Boyd, KCMG, had been given "the mandate from the Nuffield Foundation to look at the UK's capability in languages and to report on what we needed to do as a nation to improve it." The Inquiry Committee made a number of ambitious and timely recommendations. It concluded:

In spite of parental demand, there is still no UK-wide agenda for children to start languages early. There is a widespread public perception, backed by re-
search, that learning another language needs to start earlier if the next generation is to achieve higher standards. An early start to language learning also enhances literacy, citizenship and intercultural tolerance. (The Nuffield Foundation 2000: 6)

### 1.1.5 The emergence of intercultural understanding as part of the primary languages curriculum

The duality of purpose of language learning, referred to earlier, as both a skill and a means to develop cultural awareness and intercultural understanding was likewise at the heart of the national strategy, Languages for All: Languages for Life. A Strategy for England (DfES 2002). The vision statement recognised languages as a lifelong skill with both economic and personal benefits, in particular those of instilling a broader cultural understanding. It emphasised that these were essential skills in the $21^{\text {st }}$ century and recognised the past failures of the UK to develop capabilities of multilingualism and cultural awareness. The statement points to the dangers of both cultural impoverishment and economic disadvantages as a result of the lack of foreign language skills among the UK population and workforce.

The Key Stage 2 Framework for Languages published in 2005 certainly presented a fresh conceptualisation of language learning which challenged the traditional discrete four skill approaches to teaching, based on Listening, Speaking, Reading and Writing, replacing these classifications with the integrated strands of Oracy and Literacy. This was the first national document in England to identify learning objectives for intercultural understanding linked to language learning. The Framework was organised in five interrelated strands: three progressive strands - Oracy, Literacy and Intercultural Understanding (ICU), and two crosscutting strands, Knowledge about Language and Language Learning Strategies. Learning objectives and learning opportunities were defined for each year group for the progressive strands. The Framework intended to illustrate how to integrate ICU within language lessons and across the wider curriculum. Knowledge about Language and Language Learning Strategies were by their nature recursive, and although there was a clear read across to the learning objectives for the progressive strands, it was understood that knowledge about language and language learning strategies would be relevant to language learning in all four years of key stage 2 at different levels of complexity.

The definition of Intercultural Understanding was ambitious, framing the ability to conceptualise the child's world from the perspective of other cultures and traditions. ICU was considered an essential component of citizenship, integrated
with language learning - both inside the language classroom and across the wider curriculum. These objectives are retained in the 2014 National Curriculum for England (DfE 2014), which conceptualises language learning as "a liberation from insularity", fostering curiosity, deepening the understanding of the world, learning new ways of thinking, and reading great literature in the original language. Written in pre-Brexit Britain, the tone of the purpose of study for key stages 2 and 3 was expansive and optimistic:

Language teaching should provide the foundation for learning other languages, equipping pupils to study and work in other countries. (DfE 2014)

In common with Leathes (1918), the current rationale for learning languages thus extends beyond the transactional to include cultural empathy and intercultural understanding, together with "history, literature and civilisation of other countries", fostering an international outlook and supporting personal development and concepts of global citizenship. However, the same duality of purpose prevails: languages as a skill; languages as "liberal education".

So, if there is consensus that rationales for language learning attempt to achieve a duality of purpose, developing language competence and to some extent cultural capital, with particular emphasis on developing intercultural understanding contributing to citizenship, we have defined the Why question, which leaves us to investigate the other key questions: What? When? And How? Policy decisions about why languages are included in the national curriculum should logically affect what programmes of study define and what teachers are required to teach. Decisions about when to introduce languages into the national curriculum and the appropriate starting age affect how they are taught, pedagogic principles and methodology, and should be guided by what researchers and practitioners understand about how children learn at different stages of development. The How question has another dimension relating to how to implement policy, and includes a range of challenges surrounding provision of suitably qualified teachers, appropriate resources, time in the curriculum, and effective transition arrangements, addressing how to ensure continuity and progression at points of transfer from primary to secondary education. All of these decisions can (and should) be supported by research.

In the next section of this chapter, we will revisit key moments in the history of language policy-making, and investigate the extent to which policy decisions took account of available research findings, or whether political and sociopolitical factors took precedence in the decisions taken with regard to the when, what and how questions.

### 1.2 When? Is younger better?

The appropriate starting age for language learning in school curricula has always proved contentious, and has more recently received particular attention from Myles et al. It becomes particularly contentious if the main driver for the early introduction of primary languages is linguistic competence and the perceived advantages of an early start to building national capability in language skills. The risks of the instrumental agenda for languages based on age-related attainment outcomes overriding all other considerations are illustrated starkly by the government response to the National Foundation for Educational Research (NFER) evaluation of the Nuffield Pilot Scheme for the teaching of French in primary schools (Burstall et al. 1974).

The Pilot Scheme ran from 1964-1974 in England and Wales, introducing French into the primary school curriculum on an experimental basis from September 1964. The scheme took the form of a longitudinal study of three cohorts of pupils aged between 8 and 11, each cohort involving five to six thousand pupils. The main purpose of the experiment was to discover whether it would be both feasible and educationally desirable to extend the teaching of a foreign language to pupils who represented a wider range of age and ability than those to whom foreign languages had traditionally been taught (Burstall 1975). It was agreed that the experiment would be subject to a ten-year period of evaluation by NFER. Main findings from the study were produced and published in two interim reports (Burstall 1968, 1970) and a final report (Burstall et al. 1974).

The goals of the Nuffield Pilot Scheme were far-reaching and sought to investigate a wide range of academic, socio-cultural and socio-economic factors and their impact on early language learning, and also intended to explore the effect of language learning on other subjects. The study was conducted with the aims:
(i) to investigate the long-term development of pupils' attitudes towards foreign-language learning;
(ii) to discover whether pupils' levels of achievement in French were related to their attitudes towards foreign-language learning;
(iii) to examine the effect of certain pupil variables (such as age, sex, socioeconomic status, perception of parental encouragement, employment expectations, contact with France, etc) on level of achievement in French and attitude towards foreign language learning;
(iv) to investigate whether teachers' attitudes and expectations significantly affected the attitudes and achievement of their pupils;
(v) to investigate whether the early introduction of French had a significant effect on achievement in other areas of the primary school curriculum. (Burstall 1975)

The conclusions of the NFER final report (1977) were unequivocal that there was no perceived long-term advantage to progress made in language learning by virtue of the early start. This was in stark contrast to the prevailing view of the time. The final report stated that "other things being equal, the older children tended to learn French more efficiently than the younger ones did" (Burstall 1977: 247f.). By age 16, there were no noteworthy differences in proficiency between early-starter children and later-starter non-project participants, except for minimal differences in listening comprehension which "although statistically significant, were hardly of a substantial nature ... a fairly minimal return for the extra years spent learning French in the primary school" (Burstall 1977: 248). Younger was not better.

All other findings relating to the wider research purposes in particular those relating to ability, socio-economic factors, attitudes, achievement and motivation were given less attention. This was deeply regrettable, as empirical evidence about learning outcomes from children across the full ability range, and a study of the most appropriate methods to teach children from different socio-economic backgrounds would have been of considerable value in planning future initiatives for primary languages. It was also significant that Burstall suggested a link between positive attitudes generated in early language learning and greater L2 proficiency at a later stage: "the development of attitudes towards foreign-language learning during later years may be powerfully influenced by the learner's initial and formative experience of success or failure in the language learning situation" (Burstall et al. 1974: 235). The central conclusion from the experiment that there was a lack of convincing evidence that younger was better curtailed further expansion of the Pilot Scheme and set back the progress of primary languages policy development for forty years (Tellier 2019).

### 1.3 Who? What? and How? The challenges of teaching a specialist subject in the primary curriculum

The lack of evidence of the advantage of the early start on linguistic outcomes was, indeed, the major factor in the government decision to withdraw funding in 1974, but was not the only factor at play. The socio-political context at the time of the Nuffield Pilot Scheme, despite firm advocacy and encouragement for languages emanating from the Annan Report, was not entirely favourable
towards primary languages, as is evidenced by the publication of Central Advisory Council for Education (England) (1967). The Plowden Committee, while reserving judgement until evidence from the NFER evaluation of the "experiment" became available, did not give wholesale support to the introduction of primary languages. A number of organisational factors, similar to those raised by Leathes, were of concern to the Committee, and there was also an underlying pedagogical question about the place of language learning in the primary curriculum. Questions were asked about who would teach primary languages, what they would be teaching and how they would do it.

The late sixties were a time of social transition when there was much debate about the relative rights of society and the individual (Central Advisory Council for Education (England) 1967: 493). Would approaches to pedagogy for primary languages be at variance with the prevailing philosophy of teaching advocated by the Plowden Committee that prioritised the individual needs of the child? The Committee regarded fitting children for the society in which they would grow up as one obvious purpose of education (Central Advisory Council for Education (England) 1967: 494). Education and pedagogic principles would inevitably change with the focus on child-centred education. The Plowden Report advocated a move away from formal class teaching to group work, projects and learning through social interaction, play and creativity. These arguments were influenced by Piaget and his findings on the late emergence of powers of abstract thought (Central Advisory Council for Education (England) 1967: 371).

There was concern that if formal teaching and specialisation were to be introduced too early, it would interfere with the development of the individual child. The teaching of a modern language was seen to present such a risk:

The introduction of a modern language into primary schools raises acutely the question of specialisation. It will be easier when many more primary teachers are qualified to teach French, but that time is still a long way off. In the meantime there is bound to be some anxiety lest the methods used in teaching French vary sharply from those used for the rest of the curriculum. The developing tradition in primary education since 1945 has been away from class teaching and from formal lessons, but the early stages of learning a modern language inevitably involve some class teaching and many teachers fear that much hard-won ground will have to be given up (Central Advisory Council for Education (England) 1967: 617 (iv)).

### 1.3.1 The central importance of teacher supply and specialist subject knowledge

The most hard-hitting argument mustered by Plowden against primary languages related to the conditions of success and the lack of appropriately qualified staff, taking account of subject knowledge in its broadest definition, encompassing language competence and pedagogic knowledge and understanding.

> It is unfortunate that many schools and areas which are outside the experiment have chosen to add French to the curriculum without ensuring reasonable conditions for success. [...]The fact remains, that far too many schools have introduced French without having a teacher who possesses even minimum qualifications, without consideration of what constitutes a satisfactory scheme and timetable and without any consultation with receiving secondary schools. This can only be deplored. No good purpose can possibly be served by it. Without a teacher who is well qualified linguistically and in methods suitable for primary schools, it is better to have nothing to do with French. The presence of a native French speaker, while it guarantees the former, often fails to provide the latter (Central Advisory Council for Education (England) 1967: 617 (v))

The Committee furthermore had concerns over less able pupils and the suitability of teaching languages to the full ability range. The Plowden Report left little room for doubt that Committee members remained unconvinced by the progress of the implementation of the Nuffield Pilot at the time, and strongly counselled against expanding primary languages provision until the outcomes were fully known (Central Advisory Council for Education (England) 1967: 618).

### 1.3.2 Implicit versus explicit learning

The Plowden Committee was not the first group of experts to question the wisdom of the early start. The relationship between literacy levels in the child's first language and the learning and acquisition of a second language, together with considerations about stages of development that we may now refer to as metacognition, were under close scrutiny over a hundred years ago as the Leathes report shows. Leathes set out arguments for and against an early start at the age of nine or twelve (Leathes 1918: 114-120), in other words either an early start in primary school where learning is more implicit or in secondary school where teaching approaches are more explicit. The proponents of an early start argued strongly for the advantages of the "imitative faculty" (implicit learning) which
would enable younger children to acquire the new language readily by exposure and imitation (Leathes 1918: 115). The counterargument refuted the value of pure imitation and made the case that pupils should not attempt the difficult task of learning a foreign language until they had acquired a reasonable mastery of their own (Leathes 1918: 117).

The substance for the counterargument relied on three main observations: first, that pupils should be familiar with elementary notions of grammar which would be necessary for the systematic study of a new medium of expression; second, that the mind of younger learners was not yet ripe for the serious study of a foreign language; and third, that early beginners would soon cover the whole of the content accessible to them and teachers would have to fall back upon a monotonous repetition of the rudimentary type of instruction. Leathes does not hesitate to point out the negative consequences of what would be regarded today as demotivation due to an unchallenging programme of learning:

At first, the children may respond readily and brightly. Before long they grow weary of what they regard as nothing more than a singularly uninteresting form of game. In the end they become stale; and when they are old enough to have their work arranged on a system that is regularly progressive, they have lost the keenness which a new study should call forth. (Leathes 1918: 117)

### 1.3.3 Planning progression and the problem of transition

In common with Leathes, the Plowden Committee was plainly aware of the risks of repetitious learning arising from the introduction of primary languages. It was also clear that transition from primary to secondary schools could be problematic and that progression would not automatically continue cross-phase. The Committee saw this as a challenge shared by foreign languages, science and mathematics (Central Advisory Council for Education (England) 1967: 446). Professor Eric Hawkins, who had served on the Plowden Committee, later reflected that the government had only itself to blame for the shortcomings of the Nuffield Pilot Scheme. Citing the Annan Report (Annan 1962), Hawkins (1996) remarked that "the perceptive Annan Report not only prodded Government to take action but put down marker buoys on the very rocks on which the national Pilot Scheme, launched in 1963, was to founder in 1974."

Annan had highlighted that:
the attractions in starting to teach a modern language early are that pupils become familiar with the foreign idiom at an age when their imitative fac-


#### Abstract

ulties are perhaps at their peak. It is of course, a prerequisite of success that the teachers themselves should have really fluent command of the spoken language and the methods they use should be up to date. To find or create such a body of teachers would take a long time and care would be needed to avoid the undesirable complications in the presentation of the language in secondary schools, which generally draw their pupils from a multiplicity of primary schools. (Annan 1962: para 63)


Issues over methodology, consistency of provision, teacher supply, teacher training, effective transition from primary to secondary schools, were all contributory factors in the demise of the Nuffield Pilot Scheme. These "marker buoys" warning of the dangers ahead are as relevant today as they were in 1918.

Muijs et al. (2005) raised similar concerns in their Evaluation of the Key Stage 2 Language Learning Pathfinders (2003-2005). They reported that some schemes of work in the Pathfinder project schools showed some evidence of differentiation and progression across the four years of key stage 2 , but others did not. Inconsistency in planning and delivery in some cases led to a repetition of the same content from one year to the next with no planned progression from year to year (Muijs et al. 2005). Cable et al. (2010), following a three-year longitudinal study of pupils in key stage 2, reported similar findings showing that there was very little assessment of pupils' progress in their learning.

The seminal study by Myles \& Mitchell (2012) which explored the learning of French from ages five, seven and eleven brought together several of the challenges highlighted in previous policy initiatives such as starting age, motivation, attitudes, progression and attainment. The authors were particularly interested in the rates and routes of language learning, and addressing the question of grammar. Plainly, similar challenges continue to affect the implementation of primary languages in the national curriculum of 2014, and these are brought together and addressed by research-informed recommendations in the RiPL White Paper (Holmes \& Myles 2019), drawing substantially on Myles' research.

Very little seems to have changed over time and the introduction of the statutory requirement in 2014 to teach a foreign language from the age of seven in England seems to have made scant difference. Due to a lack of coherent crossphase planning, secondary schools often take little account of prior learning and start from scratch, meaning that pupils can find themselves repeating what they have already learnt which can lead to long-term lack of curiosity and interest, that may be a contributory factor to low uptake when languages become optional for pupils at key stage 4 at the age 14 (Tinsley \& Doležal 2020; Holmes \& Myles 2019).

It can be argued that history shows that policy makers rarely appear to learn lessons from the past and tend to be rather selective about lessons from research, seeking findings that are the most comfortable fit with political intentions. However, it is equally valid to argue that when policy decisions are preceded by government-funded research and recommendations from the evaluation of pilot studies are taken into account, there is a greater likelihood of successful policy implementation.

## 2 Conditions for success

There is clear evidence from history, that if the "marker buoys" are observed and the right conditions for success are put in place, positive outcomes can be achieved. One such example is the Scottish initiative launched in 1989, which served to inspire future policy initiatives in England that were to follow in the late 1990s and into the new millennium (The Nuffield Foundation 2000). This initiative was implemented in a manageable way. It started out with a small number of schools based on a cluster model where the secondary school would work with all of its primary feeder schools. The intention was to avoid problems at the age of transfer by ensuring that all of the pupils would share similar experiences of language learning in their schools. From the outset, it was made clear that an expansion to all primary schools would not be automatic but would be decided on the progress made. Gradually, further pilots were added and these were followed by regional initiatives. By 1992, there was sufficient confidence in the results of the Scottish pilots for the Secretary of State for Scotland to announce the intention to introduce primary languages into all primary schools in Scotland over the next five-year period (Johnstone 1996).

Encouraged by the Scottish pilots, the late 1990s saw government support for primary languages accelerating in England and Wales (cf. Morgan \& Neil 2001). Key developments were taking place through government-funded classroom projects and online support. Central to these initiatives in England was the cooperation between government, the Qualifications and Curriculum Authority (QCA), the Teacher Training Agency (TTA) and the Centre for Information on Language Teaching and Research (CILT).

In 1999, the Good Practice Project, funded by government and run by CILT was established in England and Wales. It involved eighteen primary schools representing different types of school, a diverse range of pupils and different areas of the country. Each school was assigned a language teaching adviser, who would visit and support the development of classroom practice and curriculum planning, observing lessons and providing feedback, modelling practice and giving
advice on resources. Professional learning was two-way; the language teaching advisers and the classroom teachers were project partners, co-constructing best practice and evaluating what worked most effectively. The Good Practice Project ran for two years (September 1999 to March 2001) and published an evaluation report for government in 2001.

Support structures for the implementation of primary languages were put in place. In the late 90 s, the National Advisory Centre for Early Language Learning was set up in CILT, London, with access to library facilities and online support. Regular bulletins were produced disseminating best practice and sharing case studies from schools participating in the Good Practice Project, and from other schools where primary practice was developing successfully. Initiatives were being put in place to steadily build capacity in primary languages teaching and learning, and they needed time to grow and time to embed. As the Good Practice Project continued and developed, a major shock took place in language policy for England that was to shape the future of primary languages policy, putting pressure on both primary and secondary schools in England.

### 2.1 U-turn for fourteen-year-olds puts primary languages at the forefront of government policy

The 2002 publication, "Extending opportunities, raising standards, Green Paper", by Estelle Morris, then Secretary of State for Education, illustrates how the tectonic plates had shifted for language policy: government attention was firmly focused on introducing an entitlement to language learning from the age of 7, while removing the statutory requirement for all pupils to study a modern language from 14 to 16 . The flagship policy of "languages for all" from eleven to sixteen, brought in by the national curriculum from 1992, had largely failed, and the commitment to the introduction of primary languages was seen as the solution and counterbalance to that failure. The reasons for the policy U-Turn are of interest, since there is a degree of overlap in certain factors that affect language policy implementation in both primary and secondary phases. The expansion, both vertically in relation to the age group that were required to learn a modern language up to the age of sixteen, and horizontally in terms of offering language courses to the full ability range led to a shortage in the supply of adequately qualified teachers. There was also the need for intensive professional development to cater for the needs of a far broader pupil demographic, including pupils with special educational needs and disability.

There were other pressures affecting decisions at secondary school level about curriculum priorities affecting languages that also have resonance with decisions
later to be made in primary schools. Alongside the national curriculum, the government had introduced performance league tables from 1992, primarily to monitor schools' examination performance at secondary level and children's performance in standard assessment tests in the core subjects of English, Maths and Science at the primary level. Concern surrounding overall school performance led headteachers in secondary schools to overuse disapplication procedures that allowed pupils to be removed from the study of particular subjects, like modern languages, to make room for support in English and mathematics or for vocational courses. Of the foundation subjects affected by disapplication, the teaching of modern foreign languages was undoubtedly the most severely compromised (Morris 2002). We will see that later in the implementation of the primary languages policy from 2014, headteachers and class teachers will choose not to teach primary languages for lengthy periods of time in order to prepare pupils for Standard Assessment Tasks (SATs).

### 2.2 Government-funded research supporting the national languages strategy (2002-2010)

Following the publication of Morris (2002), the implementation of primary languages had to accelerate as primary languages had assumed far greater priority in national language policy. Lessons from the Nuffield Pilot Scheme were not entirely ignored and were reexamined to some extent. Encouraging progress from the Scottish initiatives served to shape decisions around government funding to support the national strategy for England. There was also a serious commitment to research. In addition to the Evaluation of the Key Stage 2 Pathfinder Projects by Muijs et al. (2003-2005), the government commissioned two three-year longitudinal studies. The first of these, which was conducted by the NFER between 2006 and 2009, intended to assess the nature and extent of language learning provision at key stage 2 in primary schools in England, and to evaluate progress toward the implementation of the national strategy target that all children from the age of seven should have an entitlement to language learning in class time by 2010. The focus of the NFER research was quantitative. It comprised an annual survey of primary schools, using a longitudinal sample (including a representative sub-sample of 500 schools, selected to eliminate any possible bias), of all local authorities representing all of the different local government areas in England.

During the same period, the Open University, the University of Southampton and Canterbury Christ Church University were commissioned to carry out a qualitative longitudinal study of languages learning at key stage 2 . This study was to explore provision, practice and developments over three school years: 2006/2007,

2007/2008 and 2008/2009 in a sample of primary schools. The focus was on children's oracy, literacy and intercultural understanding, as well as to identify possible broader cross-curricular impact of the introduction of languages learning at this stage.

Both studies overall reported favourably on progress towards the implementation of the primary languages entitlement, while indicating research-based priorities for further development and investment over time, and highlighting areas for concern. By 2008, 92 per cent of schools were offering pupils in key stage 2 the opportunity to learn a language within class time and 69 per cent of schools were fully meeting the entitlement for all four years of key stage 2. Progress was being made toward full implementation, but nonetheless, there were warnings that around 18 per cent of schools were unlikely to be in a position to offer the entitlement by the target deadline of 2010. Typically, the most frequent language offered was French, followed by Spanish and then German. The common pattern of provision favoured a single lesson per week of around forty minutes, less than the recommendation in the Key Stage 2 Framework for Languages of one hour (Wade et al. 2009).

Cable et al. (2010) reported similar findings, although the sample of 40 schools in this study showed that teaching time varied from 30 minutes to one hour per week, already providing a warning that finding sufficient time in the congested primary curriculum would continue to be an issue. Professional development was having a positive impact on provision, and schools were drawing increasingly on the Key Stage 2 Framework for Languages to plan lessons and to develop mid-to-long term curriculum plans. Teachers tended to concentrate on the oracy strand and to a lesser extent on literacy, but intercultural understanding was under-represented. There was very little assessment of pupils' progress in their learning. Yet, empirical evidence from lesson observation and assessment tasks completed by a smaller sample of eight case study schools clearly demonstrated that children were making progress and could achieve the learning objectives set out in the Key Stage 2 Framework in oracy (listening and speaking) and some of those objectives related to reading set out in literacy strand. Children showed good knowledge of topic vocabulary, nouns, and set phrases, but they knew very few verbs and writing was underdeveloped.

Evidence from NFER's nationwide survey found that the majority of schools were choosing to provide language learning in discrete lessons, but the sample of 40 schools in the longitudinal study by Cable et al. found four distinct approaches to the delivery of the primary entitlement. These were lessons teaching the language, sensitisation to language(s) (tasters), language awareness, and language
teaching through another subject (curriculum embedding/CLIL Content and Language Integrated Learning). Both NFER and Cable et al. reported that transition and transfer from key stage 2 to key stage 3 were proving to be challenging, and that planning for progression in the absence of developed assessment practices was variable.

### 2.3 2010: A new government, a national consultation and a long-awaited policy decision

This was the position for primary languages in 2010, when the general election returned a hung parliament to the House of Commons, resulting in a change of political leadership. The centrepiece of the National Languages Strategy to give every child between the ages of seven and eleven the entitlement to learn a language by 2010, promised by Andrew Adonis, Parliamentary Under-Secretary of State for Schools in 2005, was subject to a policy hiatus over a period of some four years, while decisions were made about the wisdom of introducing a statutory requirement. During this period of uncertainty, much of the significant national investment into training teachers and building the infrastructure to support primary languages was lost. Elizabeth Truss, then Education Minister, requested the Department for Education to conduct a national consultation in the summer of 2012 on the proposal to make foreign languages compulsory for primary school pupils aged seven to eleven. In its press release published on 17 November 2012, the DfE reported overwhelming support for the plan with nine out of ten respondents in favour. The Minister announced that the government would now make foreign languages a statutory subject at key stage 2 from 2014 . The reasons behind this decision were influenced not only by the public consultation, but also in the belief that the early start could prevent the slide in standards and in uptake at key stage 4. In 2010, uptake at GCSE had fallen to an all time low of 40 per cent. England, still a member state of the European Union, had suffered humiliation in the First European-wide survey of language competences of teenage learners conducted by the European Commission, being ranked bottom of the table, underscoring the need for the government to prioritise modern languages. Once again, the early start was thought to provide the solution to the challenge of improving national capability in language skills.

The earlier parts of this chapter have documented the political, socio-political and educational factors that over the last 100 years have influenced, and ultimately provided the impetus for, the introduction of statutory foreign language teaching in primary schools in England by the UK Government in 2014. The Programme of Study, however, was published in 2014 without explicit reference to
previous primary policy initiatives or to relevant research into primary language policy and primary language pedagogy. In the next section, we will highlight the central role of Professor Florence Myles in raising the profile and relevance of research in influencing and informing policy formation in the current educational context. Myles' research into language learning in middle childhood, illustrates why policy decisions should address the why, what, when and how questions, taking full account of research findings and practitioner experience and expertise.

## 3 Research on language learning in middle childhood

Research shows that younger learners learn differently from older learners in classroom contexts. Younger learners are enthusiastic and receptive to new sounds, new words and new worlds (Myles 2017). If, however, the question of whether younger is better is framed purely with regard to attainment outcomes, then research consistently shows that younger learners are less efficient than older learners (Myles \& Mitchell 2012; Barcelona Age Factor (BAF) project, Muñoz 2006). Myles \& Mitchell (2012) found that older children learned faster, and this was related to their use of cognitive strategies to support their learning and to their more advanced literacy skills (Myles \& Mitchell 2012, Myles 2017). They also found in the same study, that the younger learners were particularly enthusiastic and receptive to new language and new cultural input. Younger learners learn implicitly, and rich and plentiful input plays a key role in language learning in middle childhood (from ages $6 / 7$ to $11 / 12$ ). This means that younger learners require a greater amount of curriculum time and quality of input than are currently being provided by typical classrooms in England (Holmes \& Myles 2019). These research findings thus have implications for national expectations of progress and also for national rationales for the early introduction of languages to the curriculum (Mitchell \& Myles 2019). Myles raises awareness that if proficiency is the only driver for the early introduction of languages, then research evidence suggests that it is not the strongest argument for policy change (Myles 2017, Mitchell \& Myles 2019). She puts forward strong arguments in favour of the motivational, cultural and cognitive benefits of early language learning (Myles 2020). There are clearly linguistic benefits from learning another language in addition to the first language, and Myles recommends that links with L1 literacy and all the languages children know and are learning need to be strengthened (Holmes \& Myles 2019: 10). But it is the benefits to the personal, social and cultural development of children that Myles believes are undervalued in favour of
the focus on proficiency in language skills (Myles 2017). There are certainly implications of how and what teachers are required to teach, if our rationale for primary languages changes its emphasis and focuses more robustly onto cultural aspects as well as linguistic content. The teaching of modern languages in a country that believes that it speaks the global language presents particular challenges (Porter et al. 2020). Securing and sustaining the motivation of learners are crucial to raising standards and uptake, and cultural input is seen to interest and inspire young learners. As Myles has pointed out, [i]t seems that even an hour per week has the potential to awaken a lifelong interest in foreign languages, which must be welcome in a country where foreign language learning is undervalued and in crisis (Myles 2017).

## 4 The development of the Research in Primary Languages (RiPL) network

Myles' research findings into second language acquisition prior to 2014 (e.g. Myles 2014) contextualised how research into second language acquisition (SLA) over previous decades fed into the understanding of language learning and teaching in classroom contexts and, more latterly, has contributed to identifying the implications for the introduction of compulsory foreign language learning at key stage 2, highlighting issues and questions surrounding these implications, namely: a lack of guidelines and adequate training for teachers to implement the new policy, especially important for practitioners with no previous experience of language teaching; a lack of adequate and age-appropriate teaching materials; time allocation given to the provision of primary languages; curriculum content; assessment; and transition (Holmes \& Myles 2019).

It was clear from the outset that primary schools were faced with many challenges surrounding the implementation of the statutory order to teach primary languages from the age of seven introduced in 2014, and did not have the resources or guidelines to ensure that they could deal with these challenges successfully. This disconnection between research findings, the primary practitioner context, and government policy prompted Myles to realise her vision of a re-searcher-practitioner stakeholder network which would provide a forum for combined stakeholders to consider and explore the central role of research in developing age-appropriate teaching methods and the kind of language pedagogy appropriate for children of primary-school age. Building on her own research and in collaboration with other leading academics, Myles planned to mobilise
research findings and support policy-making at national and local levels by providing access to research and to researchers which could inform and influence policy and practice.

Myles thus established the Research in Primary Languages (RiPL) Network in 2018, bringing together active researchers, prominent in their field, with policy developers and practitioners, to inform, influence and develop primary languages policy and its implementation in whatever ways were open to them. The intention was to address, and hopefully to counter, the false starts of history. By serendipity, the launch of the RiPL network and the subsequent publication of its White Paper in 2018 coincided with the centenary of the publication of the Leathes Report in 1918. This simple coincidence becomes a cogent reminder of how little appears to have changed in the fortunes of primary languages in over a hundred years.

The network grew out of a successful ESRC bid developed by Myles and Mitchell for a seminar series in 2015 on the topic of Early Foreign Language Learning in an Anglophone context. From its inception, the idea was to build a network of researchers and practitioners in the UK, to identify and address some of the issues facing primary languages following their introduction into the statutory curriculum from September 2014, and provide research-informed solutions for them.

Building on Myles' vision and drawing on her own considerable expertise and experience in the field, strengthened by that of her network partners, the RiPL Network rapidly became a central line of communication between practitioners, teacher educators, other professional stakeholders, and policy makers. The uniqueness and success of the network lie in its informed approach underpinned by published research, experience of policy development and active collaboration with classroom practitioners.

The Network's publicly accessible website (www.ripl.uk) has become a hub of information on all things relating to and about language learning in primary schools. For example, it features overviews of state-of-the-art research central to the field authored by university-based researchers, leaders in their field and policy advisers: themes include the role of age in learning; cultural competence and intercultural understanding; curriculum models and curriculum policy; transition from primary to secondary school; pedagogy and teacher expertise; linguistic development and expectations; multilingualism and additional language learning; literacy, foreign language learning and wider academic achievement; and Content and Language Integrated Learning (CLIL).

Additionally, researchers, under the direction of Myles, have produced onepage summaries of research articles of interest and relevance to practitioners in

Primary education and Secondary education, with particular reference to transition in the latter case. These have been written in non-academic language to ensure that they are also easily accessible to a non-academic audience. From feedback given by practitioners following the very successful MOOCs - "Teaching and Learning Languages in Primary Schools: Putting Research into Practice", the summaries have proved a valuable resource for teachers, teacher trainers, journalists, and policy makers, and have lived up to their aim in helping to reshape thinking and training. They are complemented by a section on resources for teachers, a "School Focus" section which features inspiring examples of best practice, and a regular blog which features articles by practitioners and researchers to keep the network abreast of relevant events and developments. The website also hosts policy documents and policy reviews.

## 5 Synergy between research and policy development

The collaboration between Myles and Holmes, respectively chair and co-chair of RiPL, was instrumental in bringing together leading research and policy expertise. Under the direction of Myles and Holmes and RiPL collaborators, workshops and summits brought together a comprehensive range of stakeholders interested in primary language learning. Discussions arising from the Primary Languages Policy Summit, which took place on Friday 23rd November 2018 at the British Academy, subsequently fed into the RiPL White Paper authored by Holmes \& Myles (2019) which summarised and evaluated the state of primary languages provision and issues and the challenges that practitioners and schools faced in implementing government policy at that time. In conclusion the White Paper put forward ten recommendations, providing research-informed solutions to some of the problems and questions surrounding effective implementation of primary languages. The recommendations focused on specific key priorities that should be addressed if appropriate conditions for the success were to be put in place to support the implementation of policy. These were:

- allocation of a minimum teaching time to ensure progression;
- primary pedagogy developed through initial teacher training and CPD provision;
- curriculum planning across phases;
- transition arrangements between primary and secondary school;
- assessment and reporting to ensure continuity;
- use of digital technology;
- importance of school accountability;
- role of school leadership;
- research programme to address gaps in understanding of age-appropriate pedagogy;
- the necessity of creating a national taskforce to address the challenges faced by schools and to coordinate the implementation of the national policy.

The White Paper and its recommendations were endorsed by the British Association for Applied Linguistics (BAAL). It has been cited in Language Trends 2020 (Collen 2020) and Ofsted Research Review 2021 (Ofsted 2021) among other publications. Myles, representing and liaising with the RiPL Network, was invited to advise on the development of primary languages for Oak National Academy, the online resource set up to support teaching and learning throughout the pandemic. Thanks to Myles' initiative, research on primary languages and other school-centred issues and challenges in early language learning have become more mainstream and, as such, increasingly harder for policy makers at local and national levels to ignore.

The most recent impact of the RiPL White Paper and its emphasis on the interrelationship of literacy in the first language, other languages that the children speak, and the learning of new languages, can be seen in the information document published by the Association of School and College Leaders (O'Farrell et al. 2022), and distributed to 19,000 schools and trusts. This seminal document provides guidance for mainstream primary schools in how to develop an inclusive curriculum.

Furthermore, the combined focus of research and policy activities of RiPL, including the RiPL White Paper, became a central part of the Research Excellence Framework (REF 2021) submission from the University of Essex Department of Language and Linguistics. The REF is the national assessment of research quality and impact carried out every four years at UK universities, it has national implications for both funding and reputation. A panel of experts assesses submissions for originality, significance, and rigour of research activity, evaluating these against criteria, and awarding these as $4^{*}$ world-leading, $3^{*}$ internationally
excellent, 2* recognised internationally and $1^{*}$ recognised nationally. The RiPL case study was deemed to be world-leading $\left(4^{*}\right)$, therefore contributing to the overall result of joined 1st in research impact in modern languages and linguistics in the Times Higher Education ranking of the REF 2021 results.

## 6 Conclusion

The summary of the historical debates, initiatives and recurring issues presented in this chapter clearly underscores that, were greater attention given to available research findings, and if new research to accompany primary languages policy were more systematically commissioned, then policy implementation would be more effective. It is crucial that a deeper research-informed understanding of how learners learn a new language most effectively should underpin policy decisions and should be included in initial education and in continuing professional development. All these challenges are comprehensively addressed in the White Paper through research-based recommendations, based largely on the body of work undertaken by Myles, and also benefits from the collaborative work of researchers, practitioners and policy makes brought together by Myles in the RiPL Network.

In sum, we attest that where research and policy-making work in synergy, progress towards the implementation of primary languages has been strengthened, but the journey from policy to practice has been interrupted many times, and is often overly influenced by political expediency and other socio-political factors which can obscure lessons from research. The why, what, when, and how questions still require research-informed guidance to ensure that the "marker buoys" are in position to help us avoid the hazards of history and that the right "conditions of success" called for by Leathes 1918, Annan 1962, Central Advisory Council for Education (England) 1967, Muijs et al. 2005, Cable et al. 2010 and Holmes \& Myles 2019 are put in place. This is a journey worth continuing.

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## Chapter 3

# Learning vocabulary in the primary languages classroom: What corpus analysis can tell us 

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#### Abstract

The national curriculum for primary schools in England now includes foreign language learning for children aged 7-11. However, organised instructional time is very limited, and must be used as effectively as possible, taking account of children's characteristics as learners to develop and consolidate their target language knowledge.

This chapter draws on evidence from the ESRC-funded study "Learning French from Ages 5, 7 and 11", (Myles et al. 2012, Myles 2017) regarding the development of vocabulary knowledge by early learners over a year's instruction in French. Data include video recordings and transcriptions of all lessons, as well as receptive vocabulary tests sampling systematically the vocabulary actually taught. We examine the influence on vocabulary development of factors including word frequency and word functions in classroom talk, the status of lexical items as cognates/noncognates, the provision of multimodal support for new vocabulary, activity types in which new words were encountered and practised, and the relationship between spoken and written input. We further examine briefly how far variation in vocabulary learning is due to individual learner characteristics. We draw tentative conclusions regarding the rate of progress in vocabulary learning which can be expected in a constrained classroom context, and highlight the factors which seem to promote development most consistently.


## 1 Introduction

The significance of input and interaction is generally recognised by theorists of language acquisition. In first language (L1) acquisition research, there is a long
tradition of building and analysing corpora of caretaker and child talk, which has been central to our developing understanding of child language development and the contribution of interaction and of environmental language to this process. However, in second language acquisition (SLA), the corpus-based study of input is still rare, and where it is undertaken, reference corpora rather than those capturing the actual experience of individual learners are commonly used (Mitchell 2021).

Over many years, Florence Myles has championed the use of corpora in SLA research, and has promoted the creation and analysis of a range of learner corpora in French and Spanish. In the project "Learning French at ages 5, 7 and 11", she took corpus research in a new direction, leading the creation of a longitudinal audiovisual corpus which captured the total second language (L2) learning experience of young children over the equivalent of a year's worth of lessons in an authentic classroom setting (Myles et al. 2012, Myles 2017). This chapter draws on that corpus to explore the vocabulary to which learners were exposed, how far they succeeded in learning it, and the factors which influenced that success. It was a privilege to work with Florence in the creation of the corpus, and it is a continuing privilege to work with data with such rich potential to contribute to policy formation in language education as much as to our understanding of instructed SLA.

## 2 Literature review

### 2.1 The early instructed learner: Key issues

Much of what we know about child L2 acquisition comes from studies in naturalistic contexts or immersion settings (Murphy 2014). However, in recent years, there has been more research on young instructed L2 learners, including vocabulary acquisition (see edited volumes by Nikolov 2009, Pinter 2011, García Mayo 2017). There is consensus that vocabulary learning is crucial for other areas of language development; for example, in speaking fluency (De Jong et al. 2013), it is a robust indicator of L2 proficiency (Cummins 2000), and an essential component of competence (Alexiou 2009). For L1 acquisition, the child has extensive exposure to the target language and L1 acquisition of vocabulary is characteristically fast (Qian \& Lin 2020). In one view, it is thought to take place through a fastmapping process, isolating words from the input, creating potential meanings and mapping meanings onto forms (Rohde \& Tiefenthal 2000). For instructed SLA, the task is more onerous, with limited input in the formal classroom setting. Fast mapping is more difficult in L2 acquisition, and is often mediated through
the L1. In addition, there is also the fact that the early L2 learner has to deal with unfamiliar sounds. Overall, the young L2 learner needs to acquire semantic, orthographic and phonological representations (Zhao \& Murphy 2017) and develop the ability to retrieve these stored representations. It has been observed in studies of young L2 learners that they tend to learn nouns and adjectives more easily (Cable et al. 2010) and recognition is more successful than production. In contrast to naturalistic child L2 acquisition, L2 learning in classrooms is considered to be explicit and conscious, and to involve memory systems.

The learners in this study are young, instructed learners of French who only received target language input in the classroom. These learners show a wide diversity in outcomes and make relatively slow progress, but they can and do successfully acquire vocabulary (and grammar: Mitchell \& Myles 2019). In the literature on L2 vocabulary acquisition, certain factors are identified that can predict the success of these young learners in acquiring vocabulary items. These include word-related factors, for example, modality of input, frequency of encounters in the input, word class of the item and whether the word is a cognate. Factors related to individual differences in the learners also have an influence, for example cognitive differences in working memory (WM) and attention, differences of motivation and engagement, and differences in L1 literacy levels. Finally, how much the word is practised by the learner, in what different contexts it is practised, and how (and how often) it is retrieved, have an impact on learning and retention of vocabulary items.

### 2.2 Word-related factors: Input, cognates, multimodality

Frequency, saliency and similarity with L1 are all important word-related factors influencing vocabulary acquisition. Young instructed L2 learners learn nouns and adjectives with a concrete referent more easily than verbs (Cable et al. 2010). Frequency in the input also correlates positively with success in vocabulary learning (Szpotowicz 2009, Van Zeeland \& Schmitt 2013, Peters \& Webb 2018, De Wilde et al. 2021). Additionally, learners' attention tends to focus on features in the input "that are consistent with their L1 systems" (Ellis 2006, cited in Kormos 2020: 214). This importance of the relationship with the learners' L1 entails that cognates seem to be learned more successfully than non-cognates (Szpotowicz 2009, Peters \& Webb 2018, De Wilde et al. 2021). However, for learners of French, cognate status may be unclear, for example la table and le silence are cognates orthographically but only partly phonologically, and for young L2 learners of French reliant on oral input their cognate status may not be noticed.

Differences in input modality may also play a role in what is learned and remembered. It has been found that multimodal input can enhance the comprehension and recall of information, indicating that a combination of images and verbal information may improve L2 learning and memorisation (Syodorenko 2010). However, multimodality of input seems to have varying success. While audiovisual input, images and gestures have all been shown to have a positive impact (Allen 1995, Tellier 2008, Kelly et al. 2009, Porter 2016, Muñoz et al. 2021), some studies report that words accompanied by iconic gestures have no impact on memorisation (Morett et al. 2012). Another type of input prevalent in child L2 classrooms, the occurrence of vocabulary in songs, does not necessarily lead to better learning (Coyle \& Gómez Gracia 2014, Rule \& Mitchell 2014).

From a psycholinguistic perspective, multimodality could enhance encoding and lead to deeper memory traces which are longer lasting and more easily retrieved. We adopt a current information processing view of memory and assume that WM can deal simultaneously with both sound and visual input (Baddeley et al. 2015). There are a number of different arguments supporting the positive effect that using images and gestures alongside text or spoken input can have on acquisition. For Clark \& Paivio (1991), learning is reinforced when both verbal and non-verbal modalities co-occur, and different modalities can enable deeper processing. In a similar perspective, enrichment of input leaves richer traces that in turn help memorisation and retrieval (Baddeley 1997). Based on the assumption that WM includes independent auditory and visual working memories, multimedia learning is claimed to be efficient because it conveys both auditory and visual information (Moreno \& Mayer 2000). Yet for some children with limited attention and reduced WM capacity, this multimodal input can be distracting because it is difficult for them to focus on the critical information (Matusz et al. 2014).

Concerning gesture, it is thought that enactment during encoding improves memory performance (Kormi-Nouri \& Nilsson 2001: 100), as motor encoding is thought to be more durable, more accessible, and highly resistant to forgetting (Knopf \& Neidhardt 1989: 785). In a study by Morett et al. (2012), it was found that, although gestures alone did not aid memorisation, if the participants enacted the gestures themselves, then gains were made. In a multimodal input study with young French children, Tellier (2008) found that although pictures and teacher gestures gave the children equal gains in L1 word acquisition, gestures were more advantageous when enacted by the children themselves.

Orthography can also affect the word learning process; seeing the word written down seems to ensure deeper levels of processing (Craik \& Lockhart 1972). Thus it has been claimed that the presence of the written form during word learning leads to better learning of a word's meaning (Ricketts et al. 2009), though
others have concluded it instead supports the learning of pronunciation (Krepel et al. 2021). In a similar way to enactment, another factor that may improve acquisition and memorisation is the physical act of writing the word down, asking the question whether this motor action adds another layer of processing and a stronger memory trace.

### 2.3 Focused attention and practice

Exposure is critical for vocabulary acquisition and, with severely limited class time, practice plays a crucial role in skill acquisition (DeKeyser 2012). If there are no opportunities for repeated practice, then words may go unnoticed, or the meaning may not be inferred (Laufer 2020). Multiple retrieval opportunities are needed, and successful retrieval will strengthen the representation of the vocabulary item (Nakata 2020). There are many researchers who stress the importance of both repetition and variation (Lightbown 2008, Kersten 2011). This "repeated exposure to novel lexical items can help develop rich lexical representations so word recognition and recall can proceed quickly and without effort" (Perfetti 2007 cited in Kormos 2020: 215). This in turn leads to better memorisation and longer lasting encoding and retention in long term memory.

The importance of practice and repetition can be accounted for in Barcroft's model of word learning Type of Processing Resource Allocation (TOPRA) (2002, 2013 cited in Newton 2020: 262). In this model, one of the key implications for vocabulary learning is that exposure to repeated occurrences of new words is beneficial for word learning. One of the other proposals of this model is that the way we process information determines the aspects we will remember, and a crucial factor is limited attentional capacity. This seems to be particularly significant for children as they have a reduced capacity for selective attention (Fougnie 2008) and processing L2 input is cognitively demanding.

In classroom settings with limited input, repeated practice is essential for vocabulary learning to take place. Adopting a skill acquisition theoretical framework, recently, researchers have investigated the optimum spacing between practice sessions and the importance of distributed practice (Li \& DeKeyser 2019, Suzuki et al. 2019, Rogers \& Cheung 2020). This is particularly important research for the interface between learning theories and pedagogy. Contrasting results were given by Kasprowicz et al. (2019) who studied young L1 learners of L2 French grammar, drawing on research in cognitive psychology and the premise that temporally spaced sessions lead to better learning and retention. The spacing of practice differed between 3.5 and 7 days. The results of their study indicated that there was "limited impact" of the different distributions of practice and individual cognitive factors were more significant.

### 2.4 Individual differences

With L2 learning in classrooms being at least partly explicit and conscious there is the implication that individual differences between learners will be significant. One area that predicts L2 success is L1 skills. L1 literacy is seen as a foundation for successful instructed L2 learning (Sparks et al. 2006). Dufva \& Voeten (2001), who studied 7-year-old Finnish learners of English, used measures of native language literacy (word recognition and comprehension skill) along with phonological memory measures, and this significantly predicted L2 outcomes. Level of attainment in L2 is seemingly moderated in instructed settings by level of attainment in L1 (Sparks 2012).

There are also important cognitive differences that affect language comprehension and vocabulary learning and one of these is WM capacity. Children have reduced capacity when compared to adults, and not all children have the same WM capacity. There are also cognitive changes in children as they develop, and this includes WM. These affect the extent to which children are able to store, access, retain and recall target knowledge (Kasprowicz et al. 2019: 4).

As described above, we take Baddeley's view that WM is a multicomponent system consisting of a central executive and two slave systems, the phonological loop (sound based storage system) and the visuo-spatial sketchpad (related to visual imagery). During their processing, lexical items need to be encoded, organised and consolidated and this all happens within WM. This then interacts with Long Term Memory, where lexical items and their meanings are stored. Within WM, the Verbal Short Term Memory (VSTM) is related to vocabulary learning (Gathercole et al. 1992, Verhagen \& Leseman 2016). Engel de Abreu \& Gathercole (2012), using nonword repetition and digit recall tests, found that VSTM is related to both L1 and L2 vocabulary. A further study found that phonological awareness predicts both spelling and L2 proficiency (Sparks 2012). Linked to WM is the concept of attention, and attention paid to input is vital for L2 development (Indrarathne \& Kormos 2018). Attention is a controversial topic in psychology and applied linguistics but where there is consensus, is that it is subject to intentional control and is selective (Kormos 2020: 212).

Sometimes differences in L2 learning cannot be attributed to individual cognitive differences or even differences in L1 skills. As reported in a previous study of the same group of students, some participants had similar WM scores and L1 literacy scores but exhibited different vocabulary learning outcomes (Mitchell \& Rule 2016). Thus it is necessary to examine the phenomenon of engagement. There is a history of studies that have linked academic engagement to positive outcomes in student learning (Christenson et al. 2012). It is a multidimensional
phenomenon involving aspects of students' behaviour, emotion and cognition (Fredricks et al. 2004). Recent studies have highlighted two particular aspects of engagement as being crucial for learning: mental effort and concentration. It is also believed that thoughtful engagement can lead to deeper learning (Bryson \& Hand 2007). While motivation is a necessary condition for engagement, motivation is also linked to attention, but again, one does not necessarily entail the other (Baddeley 1997). Observation is a recognised method of studying engagement in classrooms (Fredricks \& McColskey 2012), and the video corpus discussed in this chapter made it possible to track the engagement of individual case study children, as reported elsewhere (Mitchell \& Rule 2016, Mitchell \& Myles 2019).

## 3 Research questions

The research questions addressed in this study are:

1. What is the impact of individual learner characteristics on early classroom L2 vocabulary learning? (WM, L1 literacy)
2. What is the impact of classroom input and lexical characteristics on early classroom L2 vocabulary learning? (item frequency, item distribution, cog-nate/non-cognate status)
3. What pedagogical practices are most supportive of enhancing L2 vocabulary learning?

## 4 Methodology

### 4.1 The Learning French project

The data for this study are drawn from the longitudinal research project "Learning French at ages 5, 7 and 11" (Myles et al. 2012, Myles 2017). This project has provided exceptional in-depth insights into the processes and learning outcomes for foreign languages in the UK primary (elementary) school context, and contributed research insights to policy discussions on the place of languages in the curriculum, and the conditions under which such a curriculum initiative could be successful (Holmes \& Myles 2019). In England, the teaching of a foreign language of the school's choice was promoted within primary schools on a voluntary basis from the early 2000s, and became a compulsory part of the curriculum in 2014. In this project, where Myles was Principal Investigator, three intact classes of

Year 1, Year 3 and Year 7 children were tracked through their first 38 hours of lessons in French. All lessons were taught by the same specialist teacher, following the same oracy-led approach and the same lesson content, with minor ageappropriate adaptations. Most lessons ( $n=33$ ) were video-recorded and subsequently transcribed using the CHAT system (MacWhinney 2000). Later analyses using ELAN (Lausberg \& Sloetjes 2009) coded the teacher's gestural behaviour and use of multimodal resources, as well as the cognitive, behavioural and emotional engagement of a subset of children. Children's individual differences relevant to classroom L2 learning were identified as a) L1 literacy, and b) WM. L2 development was tracked through a series of specially developed instruments: among them were group role plays, a story retelling task, an Elicited Imitation test (EIT: Tracy-Ventura et al. 2014), and receptive vocabulary tests (RVT) which predominantly sampled lexical items found in teacher input. These tests were administered on three occasions: mid-instruction, immediately post-instruction, and delayed post-instruction. Previous publications arising from the Learning French project have reported the key role in vocabulary learning of frequency in teacher input and learners' individual characteristics (WM, L1 literacy: Myles et al. 2012) and of learner engagement (Mitchell \& Rule 2016, Mitchell \& Myles 2019). Here we briefly summarise findings concerning children's individual differences, and then expand previous published analyses to include closer examination of the contribution of cognates, of teacher input and children's L2 output, and of the teacher's multimodal pedagogy. We focus on the Year 3 dataset, i.e. the sequence of French lessons with 26 children aged 7-8 ( 15 girls, 11 boys), and related assessments.

### 4.2 Instruments and procedures

### 4.2.1 Individual differences

In this study, we draw on the Year 3 findings from the 28 -item non-word repetition (NWR) test developed by Gathercole \& Baddeley (1996), which was used in the project to measure children's WM. L1 literacy scores indicating Year 3 children's progress with reference to the English National Curriculum, on a scale from 1 to 9 , were provided by the school.

### 4.2.2 Lexical development

To measure lexical development, we use findings from the 50 -item RVT used at Posttest (PT) and Delayed Posttest (DPT). This test was specially created; it drew on the set of lesson recordings to sample vocabulary items from the detailed curriculum developed by the teacher, and used by her in class with vary-
ing frequency. Altogether, 44 items were selected from the 670 lexemes used by the teacher in the course of the 33 recorded lessons. A small number of items not found in the classroom input were also included ( $n=6$ ), as were a number of cognates (phonological and/or orthographic, $n=10$ ). Two word classes were sampled: nouns $(n=32)$ and verbs $(n=18)$. The test was computer based, and was administered individually; for each multiple choice item, the participant heard the target word, and had to click on the most appropriate image from a selection of four (images were drawn from the Peabody vocabulary test). As well as individual students' scores, facility values were calculated for each item on the test.

### 4.2.3 Lexical frequency

To analyse lexical frequencies in teacher L2 input and in learner L2 output, across the 33 lessons recorded in the study, we have used the CLAN programs of TalkBank (MacWhinney 2000) to conduct counts of all occurrences of individual lemmas as well as the number of lessons in which these occurred, and to examine contexts of use.

To explore relationships among lexical frequency and item cognate status, participants' individual characteristics and test scores, and the item facility of the 50 "target words", we used various statistical tests available in SPSS 27. To document the pedagogical strategies attached to a subsample of target words (some "well learned", others "less well learned"), including teaching activities and multimodal practices, we conducted qualitative analysis of lesson videos and accompanying lesson observation notes. Children's classroom engagement, not discussed in detail here, was also analysed and annotated using ELAN.

## 5 Findings

### 5.1 A descriptive overview

The results for the 50 -item vocabulary Posttest and the Delayed Posttest are summarised in Figure 1. The Posttest findings represent participants' learning immediately following the lesson sequence, and the Delayed Posttest was administered three months later. They show moderate levels of achievement on the 50 -item test.

A paired samples $t$ test showed no significant difference between the two sets of results, so the learning achieved during instruction was effectively maintained. (As previously reported, there was also no significant difference between scores on these tests and those on the Midtest, which used a slightly different selection of vocabulary items, Myles et al. 2012.)


Figure 1: Results for 50 -item RVT, used as Posttest (PT) and Delayed Posttest (DPT)

Table 1 provides an overview of the 50 lexemes targeted in the RVT, with their facility values on PT and DPT, their status as cognates, and their frequency of production by the teacher and by the children, in all video-recorded lessons $(n=33)$. (Counts of individual and group productions by children have been merged.) All frequency counts ignored morphological variation, e.g. lève, levez are both subsumed under lever 'to raise', and main, mains are subsumed under main 'hand'. The 10 words judged to be cognates recognisable to participants are indicated with (cog). The table also shows the number of lessons in which each lexeme occurred.

The 50 target items are ranked in Table 1 according to their facility value on the PT. They have been grouped into 3 clusters: "Well learned", "Moderately learned" and "Poorly learned" words. Given that the children's scores on the multiplechoice receptive vocabulary test likely involved some guessing, the thresholds for these categories have been set quite high. To count as "Well learned" ( $n=18$ ), an item must have a mean facility score of $60+$, on both PT and DPT; to count as "Moderately learned" ( $n=15$ ), it must have a mean facility score of $40+$ on both test occasions. The remaining words were placed in the "Poorly learned" category $(n=17)$.

Table 1: Target lexical items (ranked by PT facility). $n$ lessons: 33. Cognates are indicated with (cog).

| Item | Frequency |  | Lessons | Facility |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | T input | child output |  | PT | DPT |
| Well learned words |  |  |  |  |  |
| silence 'silence' (cog) | 297 | 70 | 32 | 96.15 | 88.46 |
| poisson 'fish' | 124 | 35 | 9 | 96.15 | 76.92 |
| glace 'icecream' | 35 | 28 | 5 | 92.31 | 69.23 |
| lever 'to raise, to lift' | 365 | 121 | 31 | 88.46 | 88.46 |
| trois 'three' | 518 | 164 | 33 | 88.46 | 88.46 |
| écouter 'to listen' | 215 | 30 | 27 | 88.46 | 73.08 |
| danser 'to dance' (cog) | 42 | 2 | 11 | 84.62 | 96.15 |
| chien 'dog' | 124 | 58 | 16 | 84.62 | 84.62 |
| fleur 'flower' (cog) | 64 | 46 | 5 | 84.62 | 69.23 |
| bébé 'baby' (cog) | 2 | 0 | 1 | 80.77 | 88.46 |
| crayon 'pencil' (cog) | 8 | 0 | 5 | 80.77 | 65.38 |
| fraise 'strawberry' | 62 | 29 | 9 | 80.77 | 65.38 |
| dix 'ten' | 245 | 152 | 28 | 76.92 | 88.46 |
| skier 'to ski' (cog) | 0 | 0 | 0 | 76.92 | 76.92 |
| frapper 'to knock, clap' | 37 | 18 | 10 | 69.23 | 73.08 |
| vert 'green' | 80 | 49 | 15 | 65.38 | 73.08 |
| chanter 'to sing' | 95 | 13 | 24 | 65.38 | 69.23 |
| fille 'girl' | 65 | 0 | 15 | 65.38 | 69.23 |
| Moderately learned words |  |  |  |  |  |
| garçon 'boy' | 59 | 0 | 17 | 65.38 | 57.69 |
| regarder 'to look' | 339 | 31 | 30 | 65.38 | 34.62 |
| ballon 'ball' (cog) | 41 | 20 | 8 | 61.54 | 53.85 |
| grimper 'to climb' | 20 | 14 | 8 | 53.85 | 61.54 |
| serpent 'snake' (cog) | 14 | 1 | 3 | 53.85 | 61.54 |
| table 'table' (cog) | 9 | 0 | 6 | 53.85 | 46.15 |
| déchirer 'to tear' | 0 | 0 | 0 | 53.85 | 46.15 |
| manger 'to eat' | 29 | 0 | 10 | 53.85 | 42.31 |
| escargot 'snail' | 0 | 0 | 0 | 53.85 | 19.23 |
| bisou 'kiss' | 43 | 17 | 6 | 50 | 61.54 |
| mélanger 'to mix' | 4 | 0 | 3 | 50 | 50 |
| attraper 'to catch' | 3 | 0 | 3 | 50 | 46.15 |


| Item | Frequency |  | Lessons | Facility |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | T input | child output |  | PT | DPT |
| drapeau 'flag' | 4 | 0 | 1 | 46.15 | 42.31 |
| épaule 'shoulder' | 89 | 76 | 4 | 46.15 | 42.31 |
| yeux 'eyes' | 142 | 75 | 11 | 42.31 | 46.15 |
| Poorly learned words |  |  |  |  |  |
| papier 'paper' (cog) | 29 | 0 | 9 | 38.46 | 50 |
| gagner 'to win' | 18 | 11 | 6 | 38.46 | 42.31 |
| donner 'to give' | 75 | 0 | 28 | 38.46 | 38.46 |
| chaîne 'chain' (cog) | 0 | 0 | 0 | 34.62 | 61.54 |
| nager 'to swim' | 39 | 1 | 3 | 34.62 | 46.15 |
| flèche 'arrow' | 0 | 0 | 0 | 34.62 | 38.46 |
| chou 'cabbage' | 34 | 33 | 2 | 34.62 | 34.62 |
| coeur 'heart' | 53 | 32 | 3 | 34.62 | 26.92 |
| lancer 'to throw' | 8 | 0 | 5 | 34.62 | 23.08 |
| parler 'to speak' | 187 | 84 | 18 | 34.62 | 34.62 |
| main 'hand' | 160 | 52 | 20 | 30.77 | 19.23 |
| église 'church' | 0 | 0 | 0 | 29.63 | 38.46 |
| maison 'house' | 36 | 7 | 13 | 26.92 | 26.92 |
| roi 'king' | 0 | 0 | 0 | 23.08 | 50 |
| sauter 'to jump' | 47 | 4 | 4 | 23.08 | 38.46 |
| feuille 'leaf' | 20 | 0 | 9 | 23.08 | 15.38 |
| écrire 'to write' | 30 | 0 | 9 | 11.54 | 38.46 |

### 5.2 Individual learner characteristics and attainment in L2 vocabulary

Statistical analysis (Pearson correlation) showed that the Year 3 learners' L1 literacy level and WM scores as measured by the NWR test were quite closely related ( $r=0.630, p<0.001$ ). A standard multiple regression was used to explore the strength of these two variables as predictors of L2 vocabulary learning (as reflected in the RVT PT results). In combination, they explained a substantial amount of the variance in learners' test scores $\left(R^{2}=0.499\right.$, Adjusted $R^{2}=0.456$, $p<0.0005)$. Of the two variables, only L1 literacy level had significant independent influence (L1 literacy level, $\beta=0.620, p<0.003$; NWR score, $\beta=0.126$, n.s.). Learners' age and gender also had no significant relationship with their vocabulary learning. However, our earlier qualitative research has shown that levels
of classroom engagement can also influence achievement, in individual cases. Mitchell \& Rule (2016) and Mitchell \& Myles (2019) showed that learners with relatively low L1 literacy and NWR scores but high behavioural and cognitive engagement could achieve better than predicted, and vice versa.

### 5.3 The contributions of item frequency and of cognate status to L2 vocabulary learning

We have seen from the literature review that the frequency of encounters is well established as playing a powerful role in vocabulary learning. However, Table 1 shows that the frequency of the individual target items in classroom talk was highly variable, with some items offering many more exposures than the literature suggests are necessary for acquisition, and others falling well below any likely acquisition threshold. The literature also suggests that the spacing of vocabulary encounters and vocabulary practice may influence learning; again, the distribution of target items across the 33 recorded lessons was quite variable.

Table 2 shows the most frequent items (200+ occurrences, including teacher and child output). It is clear that most of these very high frequencies can be explained primarily by these items' general functions in classroom management, e.g. in expressions such as levez la main 'put up your hand' or regardez le tableau 'look at the board' found throughout the lesson corpus. Exceptions are the two numerals trois and dix, sometimes used in classroom management (e.g. in countdowns), but also explicitly taught and practised as part of a numbers series.

Table 2: Lexical items with frequencies of 200+ in all output

| Items | Output $^{a}$ | Lessons |
| :--- | :---: | :---: |
| trois 'three' | 682 | 33 |
| lever 'to raise, get up' | 486 | 31 |
| dix 'ten' | 397 | 28 |
| regarder 'to look' | 370 | 30 |
| silence 'silence' | 367 | 32 |
| parler 'to speak' | 271 | 18 |
| écouter 'to listen' | 245 | 27 |
| yeux 'eyes' | 217 | 11 |
| main 'hand' | 212 | 20 |

[^4]Lexical frequency could also be boosted by an item's inclusion in a song or a story, e.g. the expression frappe les mains 'clap your hands' was sung many times in "Si tu aimes parler français" (a French version of "If you're happy and you know it ..."), and épaules 'shoulders' occurred with high frequency in the songs Tête, épaules, genoux et pieds ... and Si tu aimes parler français ( 155 occurrences, though clustered in only 4 lessons). The fruit fraise 'strawberry' was encountered in frequent repetitions of the story La chenille qui fait des trous (a French version of 'The very hungry caterpillar'). Other items relating to specific lesson themes might be the focus for targeted multimodal practice and some incidental exposure, again in lesson clusters, e.g. poisson 'fish' and chien 'dog' during a sequence of lessons on pets.

Lexical frequency tended to be lower for items used only incidentally in teacher's management language, without any systematic instructional focus or expectations that children would produce them (e.g. attraper 'to catch', lancer 'to throw', papier 'paper', feuille 'leaf; piece (of paper)', écrire 'to write', table 'table', each used less than 30 times, by the teacher only). However, some such items could be moderately frequent (e.g. fille 'girl', garçon 'boy', each used around 60 times).

So far, we have reviewed item frequency without distinguishing between the productions of the teacher and the participating children. Table 3 reports Pearson correlations between the different types of item frequency, and item facility on both PT and DPT. The relationship between the two frequency types is extremely close ( $r=0.837, p<0.0005$ ), so that both are significantly related to test performance.

Table 3: Pearson correlations between target item frequencies in teacher and child output, and results of PT and DPT. ** Correlation is significant at the 0.01 level (2-tailed).

|  | Output frequency |  |  | Facility |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | T |  | Child |  | PT |
|  | DPT |  |  |  |  |
| T Output Frequency | 1 | $0.837^{* *}$ |  | $0.441^{* *}$ | $0.364^{* *}$ |
| Child Output Frequency | $0.837^{* *}$ | 1 | $0.387^{* *}$ | $0.385^{* *}$ |  |
| PT Facility | $0.441^{* *}$ | $0.387^{* *}$ | 1 | $0.828^{* *}$ |  |
| DPT Facility | $0.364^{* *}$ | $0.385^{* *}$ | $0.828^{* *}$ | 1 |  |

Cutting across the role of item frequency in our expectations for acquisition, is the role of the items' cognate status. Again, the literature suggests that cognates recognisable to the learner, aurally and/or in writing, should be easier to learn.

Some cognates, which had not occurred at all in teacher output, were accordingly included in the test design (skier, chaîne), as well as some which had occurred with very low frequencies (bébé, crayon, table).

To explore the relative contributions of item frequency and cognate status to L2 vocabulary learning, we ran a standard multiple regression with teacher frequency and cognate status as predictor variables, and facility values on the PT as the criterion variable. The regression analysis results showed that the two variables jointly explained a statistically significant $35.3 \%$ of variance in test scores ( $R^{2}=0.353$, adjusted $R^{2}=0.323, p<0.001$ ). While both contributions were significant, teacher frequency made a greater contribution ( $\beta=0.492$, $p<0.001$ ) than cognate status ( $\beta=0.402, p<0.001$ ).

### 5.4 Multimodality and other pedagogic factors

As we have just seen, input frequency and cognate status account for a significant proportion of vocabulary learning in this study. However, a glance at Table 4 will confirm that some non-cognate items are quite well learned, despite not being of the highest frequency, and that some frequent items are poorly learned. In this section, we examine more closely the pedagogic treatment of a selection of these items (both nouns and verbs), to seek to identify those pedagogic strategies which were most effective in supporting learning. We consider the degree of focused attention given to an item, the range of activity types in which it occurred, the nature of multimodal support provided, and (to reflect the rhythm of practice) the number of lessons in which the item occurred.

Table 4: Selection of well learned and poorly learned items (noncognates)

|  | Facility |  |  |  | Frequency |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: | ---: | ---: |
| Item | PT | DPT |  | T | Child | Lessons |  |
| poisson 'fish' | 96.15 | 76.92 |  | 124 | 35 | 9 |  |
| glace 'ice cream' | 92.31 | 69.23 |  | 35 | 28 | 5 |  |
| frapper 'to clap' | 69.23 | 73.08 |  | 37 | 18 | 10 |  |
| parler 'to speak' | 34.62 | 34.62 |  | 187 | 84 | 18 |  |
| main 'hand' | 30.77 | 19.23 |  | 160 | 52 | 20 |  |

The noun poisson 'fish' was among the very best known at PT, and was still well known at DPT. This word was introduced in Lesson 14 as part of a new curriculum theme "Pets". During three lessons (14-16), pet vocabulary was the main focus of attention, with intensive oral rehearsal supported by images on flashcards, by text (word labels) and an iconic gesture for each animal. In a variety of worksheet- and whiteboard-based activities and games, children produced pet names in response to images and gestures, and linked labels and drawings; further drawing and labelling followed in Lesson 18. A pets-themed song was introduced in Lesson 14, and repeated in several later lessons (15, 23, 33); a petshop story was introduced in Lesson 15 (with text and images projected on the whiteboard, plus teacher narration), and repeated in other lessons (17, 20, 21, 23, 33). Both these texts included further incidental exposure to the item poisson, as did a short film shown in Lesson 16. Success in learning this particular item seems connected to the initial focused practice, supported with multimodal variations, followed by regular incidental encounters in song and story.

Table 5: Target lexical items (ranked by PT facility)
\(\left.$$
\begin{array}{lll}\hline \hline \text { Item } & \text { Pedagogic activities } & \text { Multimodal support } \\
\hline \text { poisson 'fish' } & \begin{array}{l}\text { Focused oral practice } \\
\text { Metacomment } \\
\text { Incidental use (song, film, } \\
\text { story, game) } \\
\text { Drawing and labelling }\end{array} & \begin{array}{l}\text { Iconic gesture (swimming) } \\
\text { Image (flashcards, story) } \\
\text { Text (image labels) } \\
\text { Text (story) }\end{array} \\
\text { glace 'ice cream' } & \begin{array}{l}\text { Focused oral practice } \\
\text { Incidental use (games, role } \\
\text { play) }\end{array} & \begin{array}{l}\text { Image (flashcards, } \\
\text { whiteboard images) } \\
\text { Imitation foods } \\
\text { Drawing and labelling }\end{array}
$$ <br>

frapt (image labels)\end{array}\right]\)| Action (handclapping) |
| :--- |

The well learned noun glace 'ice cream' was attached to the last theme of the lesson sequence, which was to create and perform in a café role play. In Lesson 27 , relevant food and drink vocabulary was introduced and intensively practised using flashcards, and drawing and labelling activities. In Lesson 29, there was similar practice, varied with two guessing games. The children also received sets of cards with food and drink vocabulary items (text only), and had to sort them according to their personal preferences, and then according to which were "healthy"/"unhealthy". By Lesson 31, the emphasis was on producing full sentences referring to food preferences and choices (e.g. je voudrais un hamburger 'I would like a hamburger'), which were intensively practiced individually and in a game. Café menus were also written. In Lesson 32, there was further intensive practice of food lexis and of full sentences through 3 different competitive games supported by flashcards and imitation food toys, including a plastic ice cream cone. Finally a café role play script was read and rehearsed in pairs, and then performed in groups. Songs and a story were featured in this lesson sequence, though these did not happen to include the item glace. Success in learning this item seems to be connected to the initial focused practice, plus somewhat increased learner engagement, sustained through attractive games and role play. However, recency could also have supported the children's strong performance on PT, which declined somewhat at DPT.

The action verb frapper 'to clap' was well recognised in PT, and its facility score even increased slightly in DPT. However, children's exposure to this item was completely different from the two nouns just examined, since frapper occurred only in the phrase frappe $(z)$ des/tes mains, and nearly always within the song "Si tu aimes parler français ..."(sung in 10 lessons and spaced from Lesson 1 to Lesson 33). It was also always accompanied by the action of handclapping, which may have been significant in enhancing its processing.

The next item to be considered is the verb parler 'to speak', which despite being of very high frequency ( 271 occurrences altogether), was poorly learned. A few instances of parler were found in the teacher's classroom management instructions $(n=11)$, e.g. bon vous allez parler ensemble "ok you're going to talk together" (Lesson 11). However such instructions were typically embedded with more extensive instructions in English, so it was not essential for the children to process them in detail. They also occurred only in the earlier lessons (the expression just quoted from Lesson 11 was the last). Apart from these few instances, all the remaining examples of parler again occurred in the song phrase si tu aimes parler français; the children only ever produced this item in this song. And unlike frapper, parler was not accompanied by any distinctive action or gesture, nor any other form of attention-getting practice. It seems the learners were not yet able
to distinguish individual lexical items within the phrase si tu aimes parler .... Of course, in the last few lessons they were beginning to construct sentences with verbs of liking such as je voudrais 'I would like', je déteste 'I hate', j’aime 'I like' (in the café role play). It is interesting to speculate whether in due course, this could have led to better analysis of the lexical components of si tu aimes parler français.

Finally, we consider the noun main 'hand', again poorly learned though of high frequency (212 instances) and found in the majority of lessons ( $n=20$ ) Main was used with some regularity in classroom management, usually through the expression levez la main 'raise your hand', which occurred in 10 lessons. Occasionally, more elaborate expressions were used, e.g. je veux voir les actions avec les mains et les doigts 'I want to see the actions with your hands and fingers' (Lesson 31). Main also received some focal attention in a small group of lessons with a "Parts of the body" theme (Lessons 19-21). Here, the teacher used the children's own bodies rather than images to convey meaning (rather distractingly for at least some children), and the words were presented and practised orally only Following oral repetition, the game facques a dit 'Simon says' was played, with varied instructions including touchez la main 'touch the hand'. And, of course, the plural les mains/tes mains was part of the commonly sung phrase frappe les mains discussed above.

It is not entirely clear why main was poorly learned and not clearly extracted from expressions such as levez la main or frappe les mains in spite of a reasonable range of uses including some multimodal support. The amount of focused attention main received in Lessons 19-21 was fairly limited by comparison with other related items, and - perhaps more importantly - it was never seen in writing. Incidental uses in classroom instructions and in song may be useful in promoting the acquisition of formulaic expressions, but less so in promoting parsing and the precise identification of individual lexical items within these, given children's relatively limited capacity for selective attention.

## 6 Discussion and conclusion

The project findings summarised in this chapter regarding children's individual differences (Research Question 1) confirm past research that shows how different the influences on L2 learning among school aged instructed young learners are from those applying to naturalistic L1 acquisition. These 7-8 year old children's overall learning success was strongly related to overall academic attainment, as reflected in L1 literacy level, which is in turn related to the development of WM (Sparks 2012, Courtney et al. 2017, Kasprowicz et al. 2019).

Our investigations of item facility also confirm the influence of input frequency and of the cognate status of new words on acquisition (Research Question 2: Szpotowicz 2009, Peters \& Webb 2018, De Wilde et al. 2021). It seemed that at age 7-8, children could benefit from orthographic as well as phonological presentations of cognates, so that, for example, words like table or serpent could be learned well. The nature of practice was also key to learning; our study shows that word learning benefited from both focused input and intensive output practice (DeKeyser 2012), and incidental encounters, for example in songs, were generally insufficient by themselves. While the nature of our dataset does not allow for strong conclusions on the distribution of practice, unlike e.g. Kasprowicz et al. (2019), it was certainly beneficial for focused practice to be followed up by later incidental encounters.

This study also illustrates the ongoing significance of multimodality in supporting both focused, explicit vocabulary instruction and extensive, implicit exposure (Research Question 2). As suggested by Syodorenko (2010), for example, the use of gestures, images and text were helpful in engaging attention to particular lexical items during intensive practice, in clarifying meaning, and in sustaining engagement. The contribution of particular types of support (and writing in particular) to focused vocabulary instruction is an obvious area for further research. Teacher management language consistently supported with gesture, games, songs and stories supported with images, gesture, toy objects and texts for stories, provided richer and more varied exposure to French, in which formulaic language could be consolidated, and new vocabulary could also be encountered meaningfully in more varied contexts: see, for example, the balanced treatment of poisson which led to highly successful learning of this item.

Finally, what can be learned more broadly from this study, regarding the likely outcomes of L2 learning under UK conditions? With a specialist teacher, during 38 hours of instruction, these Year 3 children were exposed to a corpus of almost 700 French lexemes (types) in teacher speech. Of these, around 330 were heard on 10 occasions or more, and 190 of this particular subgroup were nouns and verbs. If these words were learned in similar proportions to performance on the 50-item RVT test, then the children could be expected to have receptive knowledge of c100 nouns and verbs (plus an unknown number from other word classes). This is soberingly small compared with L1 acquisition rates, but nonetheless a not insignificant first step on the ladder (and at least comparable with findings e.g. of Cable et al. 2010). To maintain and possibly increase progress, it is clear that vocabulary development requires a strategic approach, including both intensive focused practice of target items with multimodal support, and ongoing extensive exposure in engaging meaning-focused activities. Use of target language
for classroom management, and use of repetitive formulaic language, are an important enrichment, provided lexical content is also supported in other ways (e.g. through extraction and practice of items within formulas). The learners will need multiple retrieval opportunities that reinforce the range of encounters that they have with a word (Kasprowicz et al. 2019, Nakata 2020, Newton 2020). These retrieval opportunities will also need to be mirrored in any test conditions for the learners (Nakata 2020). The regular linking of spoken and written word forms, from the very beginning, is helpful to literate learners for word isolation, identification and memorisation, as well as (in due course) for cracking new phonemegrapheme correspondences.

Overall, the "French from 5, 7 and 11" research programme of which this study is a part has demonstrated the intense value of longitudinal documentation of instruction for a better understanding of the pace and mechanisms of classroom learning. Following this pioneering path set by Florence, more studies of this kind, extending into other areas of learning (grammar, pronunciation ...), and to other ages and stages of learning, will be essential to underpin more effective delivery of language learning in the challenging conditions of the Anglophone UK environment.

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## Chapter 4

## Research in primary languages: Contribution to teacher professional development

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The teaching of a second/foreign language in primary school has become a global phenomenon. Nevertheless, the scant evidence that exists about primary school teachers' knowledge and beliefs about language pedagogy suggests that these are often influenced by their own experiences and "lay wisdom" rather than by re-search-informed principles. Furthermore, bringing about shifts in the knowledge and beliefs of busy in-service teachers is a challenge. This chapter begins by outlining what is already known about primary language teachers' beliefs, and what key research-informed principles might be important for them to know and understand. It then considers the creation and impact of an online training initiative designed to develop teachers' understanding of primary languages pedagogy and practice. Drawing on both quantitative and qualitative data from teacher participants in a Massive Online Open Course (MOOC), we discuss whether the initiative resulted in changes in teachers' understanding and beliefs, and to what extent the methods used in the online materials facilitated any development. The chapter concludes by considering the implications of the study for models of primary school language teacher development and areas for future research.

## 1 Teacher beliefs about early language learning

Early instructed language learning is a field where, perhaps more than any other in the broader domain of language education, there exists a number of commonly

[^5]held lay beliefs that misalign with what research proves or disproves. ${ }^{1}$ If teachers themselves hold such beliefs, this may impact on their ability to provide young learners with appropriate instruction. Furthermore, teachers of young language learners (ToYLLs) are arguably often quite different from other kinds of teachers, and also from language teachers working in secondary schools. Most did not start their teaching career in the area of languages, but have moved into it, often without much specialist training (Garton et al. 2011). Alternatively, they may have trained as a generalist primary school teacher, with only a small portion of their pre-service period devoted to languages. Any lack of pedagogical knowledge on their part would not therefore be altogether surprising.

Research into the beliefs and pedagogical knowledge and practices of teachers of young language learners can be summarised as follows:

First, a common belief is that the younger learners are when they start to receive language instruction at school, the more proficient they will become. Relatedly, it is commonly thought that they all make rapid progress, absorbing language "like a sponge", effortlessly and with enthusiasm, to borrow a commonly used expression. A large majority ( $92 \%$ ) of the respondents in Barrios's (2014) questionnaire study of pre-service language teacher beliefs viewed young learners as more able to learn a language than adults. This was echoed by a study of in-service and pre-service teachers in Turkey by Kocaman \& Cansiz (2012).

Second, research suggests misunderstanding and misconceptions among researchers and ToYLLs regarding implicit vs explicit learning, and the balance needed between speaking and listening on the one hand and literacy-based learning and grammatical knowledge development on the other. Several studies note teacher misconceptions around what is meant by Communicative Language Teaching (Butler 2005, Garton et al. 2011). Others highlight a lack of knowledge of developmental theory (Hild 2017, Rea-Dickins \& Gardner 2000) and of pupils' increasing ability to deal with abstract concepts as they grow older. For example, in a study of in-service teachers in Spain, Roothoft (2017) found that ToYLLs paid little attention to reading and writing or grammar in their instruction. The author argues that teachers' own negative experiences as learners, where they experienced a heavy emphasis on grammar, led them to want to teach in the opposite way. Likewise, pre-service and in-service teachers in Kocaman \& Cansiz (2012) attached different degrees of importance to teaching English spelling and gram$\operatorname{mar}(36 \%$ of the former thought such instruction was unnecessary, against $63 \%$

[^6]of the latter), indicating overall levels of uncertainty as to what might be most appropriate. Around a third of Barrios's (2014) participants also felt, however, that it was important to correct learners' errors in order to eradicate them quickly, before they became entrenched, suggesting weak knowledge of language development issues. Liao (2007) reported similar views among 99 teachers in Taiwan (21 pre-service, 78 in-service). Overall, it seems then that many ToYLLs lack a clear understanding of research-supported principles for teaching young learners.

### 1.1 What might we hope primary MFL teachers would know?

While it would probably be unreasonable to expect from ToYLLs in-depth and extensive knowledge of early language learning research, given evidence of teachers' difficulty in accessing research publications (Marsden \& Kasprowicz 2017), it is possible to identify some key evidence-based principles useful for them to know. These might be grouped into the broad, overlapping themes of (i) learner progression (ii) motivation and (iii) literacy and grammar development.

First, in contrast to the view that early language learning is quick and easy, in reality we know that an earlier start does not of itself lead to greater proficiency. For example, studies indicate that learners who start later can catch up and achieve higher proficiency levels, especially in grammar (Myles \& Mitchell 2012). Early language learning needs the right conditions to be successful, particularly in respect of the amount and quality of second language input learners receive in the classroom (Graham et al. 2017, Mitchell \& Myles 2019). Rather than being an effortless process, early language learning requires learners to experience language in different modalities, and to have meaningful and repeated encounters with language (Mitchell \& Myles 2019, Myles \& Mitchell 2012, Porter 2020). Likewise, learners can progress at different rates, with some experiencing more difficulties than others (Cable et al. 2010, Graham et al. 2017, Porter 2020). Importantly, far from being a fast process, progress in early language learning, while statistically significant, is very slow; primary school learners made small gains in oral and written proficiency (Courtney 2014, Graham et al. 2017, Mitchell \& Myles 2019, Myles \& Mitchell 2012, Porter 2020), especially in terms of creative sentence building and moving away from the use of memorised expressions (Cable et al. 2010).

Second, language learning motivation, by and large, tends to be high among younger learners (Cable et al. 2010). Yet not all young learners are highly motivated. For example, Courtney et al. (2017) found that around $20 \%$ of primary
school learners in their study had low levels of motivation and were fairly pessimistic about their ability to make progress in the future. Teaching that does not provide learners with that sense of progression is unlikely to foster high levels of motivation. The desire to communicate is an important motivator for young learners, meaning that instruction that enables them to do that from an early stage, by, for example, teaching language in chunks, is more likely to nurture their sense of achievement (Cable et al. 2010). As they progress, learners then become able to break these chunks down and use them more creatively and independently (Myles et al. 1998). Furthermore, motivation among young learners is far from static - as is the case with other age groups, it fluctuates over time and tends to change in nature with age. Given the importance of motivation for language learning outcomes (Dörnyei \& Skehan 2003), teachers need to understand its development.

Third, while it is likely that language learning at an early age draws heavily on implicit learning mechanisms (DeKeyser 2003), the limited amount of classroom time usually available in primary school (Graham et al. 2017) means that some attention to explicit knowledge development is needed as well. Indeed, as learners approach early adolescence and become more capable of abstract thought and reflection, some explicit grammar instruction can speed up their progress, especially if they have higher levels of language analytic ability (Kasprowicz et al. 2019, Roehr-Brackin \& Tellier 2019). Furthermore, in Communicative Language Teaching (CLT) oral and aural skills are foregrounded, but excluding literacy entirely represents a misunderstanding of CLT and learners' developmental needs. Indeed, attention to phonics instruction and writing development can go hand in hand with teaching that is focused on oral development, especially when integrated with interesting and motivating texts and tasks (Porter 2020).

### 1.2 ToYLL's development

Given that ToYLLs may have received relatively little training either pre-service or in-service, and that there seems to be a mismatch between teacher beliefs and research findings regarding early language learning, there is thus a need in many contexts to try to bridge that gap through research-informed continuous professional development (CPD). A fairly large body of research on language teacher cognition suggests that evidence-based CPD can have mixed levels of impact on language teachers (for a recent summary, see Macaro et al. 2015). That, however, seems to depend not only on the type of CPD offered, but also on how "impact" is defined and assessed. Does it imply complete change or modification (Cabaroglu \& Roberts 2000) of both beliefs and classroom practice, or just one of
those? We share the view of Macaro et al. (2015: 129) that research-based CPD is important because "developing teachers' theoretical and research-based knowledge improves [their] ability to make principled pedagogical decisions, as well as their insights into the complexity of the learning process".

Furthermore, a number of reviews draw together common characteristics of effective forms of research-based CPD and adult learning programmes. Synthesising several studies to determine the characteristics of effective teacher CPD, Cordingley (2015: 240) highlights the use of (1) evidence and research expertise, especially to inform teacher planning, (2) peer support, (3) collaboration and dialogue, and (4) "enquiry-oriented learning". Community support is also at the heart of Laurillard's work on conversational frameworks for adult learning, especially of the kind based on the use of learning technologies. That framework outlines four cycles of what Laurillard calls a "learning conversation": instructor communication, instructor practice/modelling, peer communication and peer modelling (Laurillard 2012). Cycles occur iteratively, and in each cycle learning is portrayed as a process which a) involves instructor and learner interaction and b) develops conceptual knowledge and practical action (Laurillard 2012: 87). The instructor communication cycle is grounded in social constructivism, the view that "individuals are active participants in the creation of their own knowledge", particularly through interaction with others (Davis et al. 2017: 67), and concerns learning at the conceptual level. Instructor practice and modelling cycles reflect experiential learning and involve opportunities to engage in practical action or to experience instructor modelling, both of which will support learning. Finally, the peer communication and modelling cycles recognise the Vygotskyan social constructivist view of learning and acknowledge a role for interaction and exchange of ideas, experiences, and also modelling practice (Laurillard 2012).

Different types of media and teaching technologies can support these cycles (Laurillard 2002). Narrative media forms, such as video or print, are suited to instructor communication of concepts. Interaction can include "discussing", "debating", "experimenting" and "practising" whereby the learner interacts with the instructor and other learners, using, for example, online collaboration tools such as wikis. In the practice cycle, the learner tries out ideas and modifies them in light of feedback (from the instructor and/or peers) and experience, perhaps via a simulation or real-life environment (Laurillard 2002). The framework is designed to offer a way of checking that any learning environment, particularly digital ones, offers the optimal conditions for learners to generate "articulations and actions" and to "modulate their concepts and actions" (Laurillard 2007, 2012: 94). In teacher education, for example, this might involve creating a resource based on instructor input, receiving initial feedback on it from peers, then trying out a
modified version in the classroom. It also forms the basis of a widely-used platform for adult learning, including learning by teachers: FutureLearn's MOOC ${ }^{2}$. FutureLearn MOOCs typically include a number of "steps" that the learner works through and marks as "complete".

The study in this chapter describes a three-week, research-informed CPD MOOC which commenced in July 2020 during the COVID-19 pandemic. MOOCs are free and impose no limit on the number of participants.

The extent to which CPD based on the above principles can influence the beliefs and practices of teachers of early language learning is the focus of the study we describe below, addressing the following research questions:

1. To what extent did research-informed CPD input bring about changes in beliefs/knowledge and changes (planned or enacted) in teaching practice?
2. Which MOOC step types, based on Laurillard's communication/modelling cycles for learning environment design, promoted the most learner engagement?

## 2 The study

### 2.1 MOOC design: Guiding principles

Evidence of scant opportunities for primary school teachers to engage with highquality languages CPD (Tinsley \& Board 2017) led the research team (Alison Porter, Florence Myles and Suzanne Graham) to develop a Massive Online Open Course (MOOC) called "Teaching Languages in Primary Schools: Putting Research into Practice". The course was hosted by the British digital education platform, FutureLearn.

MOOC research had identified that short courses with a maximum of 5 study hours per week were optimal for CPD purposes (Laurillard 2014), so this course aimed to offer participant teachers/teacher educators structured tasks with accessible readings scheduled over three weeks.

The overarching premise of the course was to support primary school practitioners to develop their pedagogic knowledge through the exploration of early foreign language learning research findings. Teachers were then encouraged to use this knowledge to make principled pedagogic decisions for example through making suggestions for pedagogic scenarios ("what would you do?"). The MOOC

[^7]aimed to target both pre-service and in-service teachers as well as teacher educators. Bearing in mind this potentially heterogenous cohort, it was agreed that weekly key research "messages" were presented which were related to gaps in teacher beliefs derived from the TOYLLs research literature ( $\S 1$ ). The messages were then aligned with clearly defined pedagogic principles (Table 1).

Table 1: Weekly research messages and pedagogic principles

| Week 1 message: Younger learners are not necessarily better at language <br> learning <br> Principle 1 | Young children will benefit from different kinds of teaching and <br> learning activities as they progress through primary education. |
| :--- | :--- |
| Principle 2 | Pedagogy for young learners should transition from an <br> emphasis on fun and repetition to more structured, reflective <br> opportunities for learning. |
| Principle 3 | A sense of progression and achievement becomes increasingly <br> important in upper primary classrooms. |
| Week 2 message: Getting beginner learners to use language for communica- <br> tion is beneficial |  |
| Principle 4Teaching fixed expressions can lay the foundation for later <br> creative use. |  |
| Principle 5Vocabulary and chunk learning needs multimodal learning <br> experiences with regular practice. |  |

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Week 2 message: Getting beginner learners to use language for communication is beneficial
Principle 4 Teaching fixed expressions can lay the foundation for later creative use.
Principle 5 Vocabulary and chunk learning needs multimodal learning experiences with regular practice.
Principle 6 Explicit awareness-raising of language patterns could help progression in grammar.
Week 3 message: Teaching FL literacy can encourage independent and creative language use
Principle 7 FL literacy instruction should be systematic and integrated.
Principle 8 Teach learners to recognise words through phonics instruction and learning whole words.
Principle 9 Rich and meaningful encounters with text are important for FL literacy progress, FL motivation and engagement.

Weekly activities were mapped against three cycles adapted from Laurillard's Conversational Framework 2012 as outlined in §1.2. We used her Instructor Communication and Instructor Practice/Modelling terms, and combined her Peer Communication and Peer Modelling into one cycle category. As illustrated in
§2.1.3, we felt this combined third cycle reflected more accurately how, in our experience, teachers tend to discuss, share and demonstrate their ideas for practice in conversations where it is hard to separate communication and modelling. We were also aware that the steps deemed to represent peer activities included video "teacher stories" in which non-participant teachers illustrated examples of their own teaching practices and resources. Participant comments were then elicited at the end of each story - this meant that modelling and communication were intrinsic, we felt, to these steps. We hoped thereby to reflect Laurillard's view of learning as an iterative process through which learner concepts (knowledge) and practice (application of knowledge) are developed, while also adapting her model to suit our particular learners. By equipping learners with the knowledge to make principled pedagogic decisions, the MOOC aimed to motivate learners, stimulate discussion, experimentation, enactment and adaptation of concepts and practices.

### 2.1.1 Cycle one: Instructor communication

In cycle one, the instructor and learner engaged in dialogic behaviour to support learner acquisition of new child development, linguistic and/or pedagogic concepts or research findings. The instructor introduced and explained new concepts whilst the learner was encouraged to articulate understanding and ask questions relating to the concept and/or their practice (Laurillard 2012). For example, in week 1 learners explored the research finding that context is key in determining the effects of age in linguistic outcomes, and the concept that primary school language learning takes place during a time of huge cognitive, social and emotional change. Table 2 identifies which particular steps in the MOOC formed part of the instructor communication cycle. Note that Laurillard's framework allows for an "extrinsic feedback" (2012: 95) phase in the instructor communication cycle which, in the MOOC, was provided through facilitator responses to weekly comments.

### 2.1.2 Cycle two: Instructor practice and modelling

Cycle two explored how the instructor "influences the learners' internal cycle at the practice level" by providing opportunities to encourage practical action linked to underpinning concepts (Laurillard 2012: 89). This cycle included instructor modelling to guide adaptation of actions and was categorised as an instructorled cycle because the participants were not required to act upon concepts or findings i.e. whilst they reflected upon the information in the cycle, they did not yet have to offer any examples of relevant pedagogic tools or practical actions.

Table 2: Instructor communication cycle week 2: Total steps = 14
(a) Week 1
\(\left.\left.$$
\begin{array}{ll}\hline \hline \text { Step title } & \text { Step content } \\
\hline \begin{array}{l}\text { Young learners' motivation and } \\
\text { engagement in language learning* }\end{array} & \begin{array}{l}\text { Research findings video - } \\
\text { knowledge and explanation }\end{array} \\
\begin{array}{l}\text { Language learning at a time of } \\
\text { developmental change* }\end{array} & \begin{array}{l}\text { Research findings reading (Tellier \& } \\
\text { Graham 2018) with comprehension } \\
\text { questions - knowledge and }\end{array} \\
\text { understanding }\end{array}
$$\right] \begin{array}{l}Reminder of pedagogic principles in <br>

research video\end{array}\right]\)| Check knowledge - memory and |
| :--- |
| Test your learning |
| Reflection on week's content* |

(b) Week 2

| Step title | Step content |
| :--- | :--- |
| The potential for achievement in <br> primary languages classrooms* | Research findings reading with <br> comprehension questions - <br> knowledge and understanding |
| Revisiting this week's pedagogic <br> principles* | Reminder of pedagogic principles in <br> research video |
| Test your learning | Check knowledge - memory and <br> understanding |
| Reflection on week's content* | Review key learning points - <br> knowledge and understanding |

Table 2: Instructor communication cycle week 2: Total steps = 14
(c) Week 3

| Step title | Step content |
| :--- | :--- |
| The role of foreign language literacy <br> in supporting language learning* | Research findings video - <br> knowledge and explanation |
| Developing literacy in a foreign <br> language* | Research findings reading with <br> comprehension questions - <br> knowledge and understanding |
| Revisiting this week's pedagogic | Reminder of pedagogic principles in <br> research video |
| principles* | Check knowledge - memory and <br> Test your learning |

In the MOOC, this cycle did include activities which gave participants opportunities to experiment with practical solutions. This involved hypothetical scenarios where participants were asked to offer pedagogic suggestions to a fictional colleague, opportunities to reflect on current practice in light of recently explored concepts, and, finally, tasks to evaluate other teachers' practices by linking these to theoretical evidence and principles (Table 3).

Table 3: Instructor practice/modelling cycle: Total steps = 9

| Week | Step title | Step content |
| :--- | :--- | :--- |
| $1,2 \& 3$ | What would you do? | Modelling: Hypothetical scenario created <br> to elicit principled participant suggestions <br> for practice. |
|  | What do you do?* | Practice: Linking existing practice to <br> underpinning concepts |
|  | Evaluator Task | Modelling: Develop understanding <br> by examining practice and linking to <br> evidence and principles |

### 2.1.3 Cycle three: Peer communication and modelling

In this cycle, learners collaborated to offer comments, alternative suggestions and critiques. Modelling, in this phase, involved use of peer modelling to modulate a learner's practice. Table 4 shows how MOOC participants shared experiences and reflections on key concepts and practical solutions. Participants were also encouraged to listen to teacher stories (videos) in which practising primary FL teachers explained how they had adapted their pedagogies in line with theoretical and empirical evidence. Participants were invited to reflect on this model of research-informed adaptations to practice.

Table 4: Peer communication and modelling cycle: Total steps $=19$
(a) Week 1

| Step title | Step content |
| :--- | :--- |
| Children love learning languages and <br> they're so good at it! Do you agree? | Communication: Elicit teachers' <br> existing beliefs and understandings |
| Do you teach culture and language? | Communication: reflection on <br> concepts and practice |
| Karen's story: Making French fun | Modelling: Teacher-led account of <br> practice linked to pedagogic <br> principles |
| Claire's story: Engaging emotions in | Modelling: Teacher-led account of <br> practice linked to pedagogic |
| German* | principles |
| Reflector Task | Communication: Link knowledge <br> and practice: Examining teach- |
| ers' practices against principles |  |

Table 4: Peer communication and modelling cycle: Total steps = 19
(b) Week 2

| Step title | Step content |
| :--- | :--- |
| How can we encourage language use <br> in beginner young learner <br> classrooms? | Communication: Elicit teachers' <br> existing beliefs and understanding |
| What language outcomes are <br> expected in your setting? | Communication: reflection on <br> concepts and practice |
| Sarah's story 1 - The learning <br> journey: knowing your destination | Modelling: Teacher-led account of <br> practice linked to pedagogic <br> principles |
| Sarah's story 2 - The learning | Modelling: Teacher-led account of |
| journey: stepping stones to language | practice linked to pedagogic <br> use |
| principles |  |
| Clare's story - The learning journey: Modelling: Teacher-led account of <br> making and measuring progress  | practice linked to pedagogic <br> principles |
| Reflector Task | Communication: Link knowledge |
| and practice. Examine teachers' |  |

### 2.2 Participants

MOOCs are often delivered in "runs", that is a period of time when the course is open to learners. This can happen several times a year, and the data for this study came from the first MOOC run in July 2020. 4931 participants joined the course, of those, 3435 ( $69.7 \%$ ) became "learners", meaning that they viewed at least one step in the MOOC and 2338 became "active learners", meaning that they marked as complete at least one step. Learners came from 140 countries (Figure 1).

Table 4: Peer communication and modelling cycle: Total steps $=19$
(c) Week 3
\(\left.\left.$$
\begin{array}{ll}\hline \hline \text { Step title } & \text { Step content } \\
\hline \begin{array}{l}\text { How can we foster independence } \\
\text { and autonomy in young learner } \\
\text { classrooms? }\end{array} & \begin{array}{l}\text { Communication: Elicit teachers' } \\
\text { existing beliefs and understandings }\end{array} \\
\begin{array}{l}\text { How can you use FL literacy with } \\
\text { beginner learners? }\end{array} & \begin{array}{l}\text { Communication: reflection on } \\
\text { concepts and practice }\end{array} \\
\begin{array}{l}\text { Becca's story: Phonics in a foreign } \\
\text { language }\end{array} & \begin{array}{l}\text { Modelling: Teacher-led account of } \\
\text { practice linked to pedagogic }\end{array} \\
\text { principles }\end{array}
$$\right\} $$
\begin{array}{l}\text { Modelling: Teacher-led account of } \\
\text { teach language Susi: Using stories to }\end{array}
$$ \quad \begin{array}{l}practice linked to pedagogic <br>

principles\end{array}\right]\)| Communication: Link knowledge |
| :--- |
| Reflector Task |

MOOCs are widely known to experience a degree of learner attrition - completion rates for courses are generally below $13 \%$ (Onah et al. 2014) and this course was no exception. However, whilst the MOOC noted a steady decline in visits, completed steps and comments over the course of three weeks (Table 5), its completion rate of $18.8 \%$ (or 649 participants who completed more than $90 \%$ of steps) was slightly higher than the norm.

In week 1 over $82 \%$ of visited steps were completed (that is, marked as complete by the participant). In weeks 2 and 3 step completion rates rose to $90 \%$, possibly linked to the high rate of attrition of active learners between week 1 and $2(33 \%$ and $44 \%$ respectively).

Throughout the course, a range of on-platform and off-platform data were collected as outlined below, primarily to explore change in teacher understanding, knowledge and practices and hence answer our two research questions.


Figure 1: Map showing participant location for MOOC (NB: shading indicates global joiner rates, FutureLearn does not provide a key). The map is reproduced with permission, © FutureLearn 2022, all rights reserved.

Table 5: Learner activity summary

|  | Week 1 | Week 2 | Week 3 |
| :--- | ---: | ---: | ---: |
| Learners' visiting steps | 3429 | 1134 | 931 |
| Active learners | 2318 | 1030 | 824 |
| Visited steps | 29769 | 15803 | 13189 |
| Completed steps | 24553 | 14319 | 11872 |
| Average completed steps per user | 10.59 | 13.9 | 14.41 |
| Comments | 7397 | 3683 | 2817 |

### 2.3 Data coding and analysis: Qualitative data

### 2.3.1 Participant platform comments

As learners progressed through MOOC steps, they were invited to post comments on the platform, respond to questions and discuss ideas or experiences. They were supported by two online facilitators (both experienced language teachers and teacher educators) who engaged with participant questions, "liked" or pinned useful and/or pertinent learner posts and encouraged interaction. Teachers are known to be particularly active in online MOOC discussions and forums and contribute in a "genuinely interactive" manner (Laurillard 2014: 6). During this MOOC, 3445 "active learner" participants (see §2.2) posted a total of 13897 comments online. FutureLearn's privacy policy means that these comments, which are each linked to a unique participant identifier, cannot be quoted directly, but they can be analysed for trends and broad content. The researchers anticipated that each step would yield rich data which could be used to explore the learning process including how participants engaged with new knowledge in the form of research findings and practical reflection and/or experimentation.

A coding framework was developed to capture different levels of change such as teacher espoused beliefs expressed in verbal or written formats and planned or enacted changes in practice derived from enacted beliefs (Fives \& Buehl 2012) (Appendix A). Despite our original intention to encourage and facilitate practical experimentation, many teachers were working under lockdown conditions and teaching online, and participants, especially in the UK, were often not actively teaching languages. We therefore decided to make a distinction between planned practical change and change that had actually been implemented. Analysis was intended to be both inductive and deductive. In other words, coders worked to a "theory-driven, deductive approach", applying codes from existing theoretical frameworks but also had the flexibility to respond inductively to novel concepts expressed in the data. Following this, coded transcripts were then investigated for themes showing emerging patterns in the coded data (Xu \& Zammit 2020: 2).

From the total of 49 steps, a smaller sub-sample of 12 were initially coded. These steps (marked with an asterisk in Tables 2-4) were deemed likely, due to learning design elements, to elicit instances of changes in beliefs, knowledge and/or practice, and help answer our first research question. A team of analysts applied the codes (Tellier \& Graham 2018) to the sub-sample of 12 steps in an initial wave of coding, covering 3011 comments from a total of $13897(21.7 \%)$. The appendix also includes examples of how "change" was identified in the coding. Any one comment could be coded under multiple codes, for example a comment "I'm going to embrace teaching reading strategies now that I've found out about
the research exploring benefits of French literacy instruction" would have been coded as (1) planned changes in teaching practice to support FL reading and (2) explicit reflections on MOOC research content/articulation of research findings. Samples of coding in 4 steps ( $33 \%$ of the total steps) were revisited 8 weeks after the first coding round. This process was conducted by the first author who had devised and trialled the coding framework with the coding team. This process resulted in a small number of changes in coding ( $n=12$ ).

### 2.3.2 Participant off-platform comments

At the end of each MOOC week, participants were asked to opt-in to an online questionnaire which aimed to explore in more detail the development of their understanding, knowledge and practices. The questionnaire involved statements relating specifically to that week's contents, and participants were asked to rate their agreement with these statements using a 5-point Likert scale ( $1=$ strongly agree, $5=$ strongly disagree). For example: "I have learnt something new about how children's learning changes between ages 7 and 11". They were also given space to add more information about their perceptions of changes in beliefs or practice if they wished.

A total of 476 questionnaires were completed during the July MOOC course (238 in week $1 ; 126$ in week 2 and 112 in week 3 ), with 2,426 comments to openanswer questions. The latter form the focus of our exploration of developing understanding and changes in practice in §2.

The majority of respondents to this round of data collection were teachers (approximately $90 \%$ ), of which there were a small minority of teacher trainers (approximately 19\%).

### 2.4 Data coding and analysis: Quantitative data

These comments were analysed for insights into the level of engagement by the 3435 uniquely identified MOOC participants according to step type. Quantitative data included the following metrics, with step activity (step completion data) forming the main focus of our analysis.

### 2.4.1 Step activity

It was envisaged that the step activity data could act as a proxy for learner behavioural engagement (Fredricks et al. 2004, Gobert et al. 2015) and/or perceived relevance of the step activity.

Files were downloaded from the platform which contained unique identifiers for each participant and the steps they had accessed. Date and time stamps were used to mark when a step was opened and then marked as complete, as evidence of behavioural engagement. An Excel file was created from these data, showing level of activity, for each participant and for each step. The following codes were used: $0=$ step opened not complete; $1=$ step opened and complete; $999=$ no entry for that unique identifier/step. The adapted Excel spreadsheets were then imported into SPSS for statistical analysis.

### 2.4.2 Question response

This file contained data listed by participant unique identifier which itemised responses to multiple choice quizzes in the summary activities.

### 2.4.3 Video viewing

This involved the collection of video download and view frequencies. These were not listed by participant but by step number.

## 3 Results

### 3.1 Research question 1

To what extent did research-informed CPD input bring about changes in beliefs/ knowledge and changes (planned or enacted) in teaching practice?

### 3.1.1 Changes in beliefs/knowledge

The qualitative platform data showed that from the 12 steps analysed (see §2.4.1 steps marked with an asterisk) there were a total of 2982 counts of instances of change. Most of these counts related to modifications in teacher understanding, including new or adapted understandings, beliefs or knowledge, which amounted to $1755(58.9 \%)$ instances in total. In terms of changes in practice, there were fewer numerical counts of change. 610 instances ( $20.50 \%$ of the comments analysed) demonstrated either planned or enacted changes in teaching practice.

A matrix coding query to find instances of intersections between change and step type was then run to determine any tendencies to reflect on MOOC related research by coded step. The frequency data showed that participants tended to discuss research findings with peers or facilitators most frequently ( 689 counts $23.10 \%$ of comments); they then were more likely to articulate research findings
( 83 total counts; $12.0 \%$ of the sub-group). There were 48 counts $(6.97 \%$ of subgroup comments) of participants requesting further clarification or explanation of research findings.

Subsequent analyses using Nvivo frequency data showed that the instructor communication cycle steps were likely to generate the most recorded instances of changes in beliefs or understanding, as shown in Table 6. However, it is important to note here that fewer steps were coded in the instructor practice/modelling and peer communication/modelling steps.

Table 6: Instances of change in beliefs/understandings reported in research findings video steps (instructor communication cycle)

| Change in teacher beliefs/understanding (total <br> $=1755)$ | Week 1 | Week 2 | Week 3 |
| :--- | ---: | ---: | ---: |
| Non-specific | 3 | 0 | 0 |
| Nature of development in middle childhood | 180 | 4 | 0 |
| Importance of progression for motivation | 134 | 12 | 3 |
| Independent language use | 4 | 25 | 7 |
| Learning of grammar | 1 | 169 | 4 |
| Learning to read in the FL | 5 | 2 | 127 |
| Learning to write in the FL | 1 | 0 | 5 |
| Learning vocabulary | 6 | 79 | 15 |
| Multimodality | 5 | 102 | 14 |
| Phonics Understanding | 0 | 0 | 0 |
| Planning for progression | 35 | 0 | 0 |
| Total instances of change | 374 | 393 | 175 |

Areas with the highest counts - developmental change (10.48\%), progression for motivation ( $8.49 \%$ ), learning of grammar ( $9.91 \%$ ), multimodality ( $6.89 \%$ ), learning to read in the FL ( $7.64 \%$ ) represented the core themes in each week's content. In other words, reported instances of developments in understanding and knowledge were closely linked to the key messages presented. Having said that, there were lower counts, in week 3 's video, for phonics understanding which formed a core part of the literacy content. This, it is suggested, could be due to participant demographic factors. 885 active learners reported the UK as their country of origin, and primary school teachers as well as wider education stakeholders in this country are likely to be conversant and confident with the concept of phonics instruction, which is widely practised in the early primary years.

### 3.1.2 Changes in planned or enacted practice

The research findings videos encouraged a relatively small number of instances where participants reported plans to adapt their practice (Table 7).

Table 7: Planned changes in practice by instructor communication cycle steps reported in research findings video steps

| Change in practice planned (total = 478) | Week 1 | Week 2 | Week 3 |
| :--- | ---: | ---: | ---: |
| Unspecified | 4 | 2 | 1 |
| To support grammar teaching | 0 | 16 | 0 |
| To support independent language use | 1 | 7 | 3 |
| To support language use | 4 | 5 | 2 |
| To support motivation and/ or engagement | 66 | 0 | 0 |
| To support reading | 1 | 0 | 47 |
| To support use of multimodality | 1 | 6 | 1 |
| To support writing | 0 | 0 | 3 |
| Total instances of planned practice | 77 | 36 | 57 |

Unsurprisingly, comments tended to focus on the main theme in each week. The research videos were more likely to facilitate changes in knowledge and understanding than in practice, perhaps because participants needed more structured opportunities and guidance for the latter to happen. A matrix coding query across all steps showed that for planned practice ( 478 total comments) participants tended towards changes to support motivation ( 199 counts $-41.63 \%$ of total planned practice comments), reading ( 63 counts $-13.18 \%$ of total) and language use ( 53 counts $-11.09 \%$ of total).

Table 8 shows that far fewer cases of enacted practices were recorded but this was probably largely due to teachers working under lockdown conditions at the time of the course and, whilst in the UK teaching moved online, there tended to be much greater focus on ensuring core curriculum subjects such as mathematics, English and science were taught rather than languages. Frequency counts of enacted practice ( 54 total comments) demonstrated that participants implemented changes to support motivation ( $40.74 \%$ of total enacted comments) and grammar teaching ( $7.41 \%$ of total enacted comments). Most planned and enacted practice comments were generated by instructor communication steps (e.g. research videos, research readings and revisiting pedagogic principles).

Table 8: Enacted practice by instructor communication cycle steps in research findings video steps

| Changes in practice enacted (total = 132) | Week 1 | Week 2 | Week 3 |
| :--- | ---: | ---: | ---: |
| Unspecified | 1 | 0 | 0 |
| To support grammar teaching | 1 | 3 | 0 |
| To support independent language use | 3 | 1 | 0 |
| To support language use | 5 | 1 | 0 |
| To support motivation and or engagement | 22 | 0 | 0 |
| To support reading | 3 | 0 | 7 |
| To support use of multimodality | 0 | 4 | 1 |
| To support writing | 1 | 0 | 1 |
| Total instances of enacted practice | 36 | 9 | 9 |

The off-platform questionnaire data showed that participants could articulate new learning clearly, often examining and questioning lay wisdom, and with implications for planned or enacted practice:

This course is really helpful. Some information is new to me. I have always heard that YL [Young Learners] learn faster them others, and I realized here that it is not true. Another thing that surprised me is that: "during middle childhood children are able to think about language in an abstract way. This means that children are able to think and talk about patterns in language, for example." That is for sure that I am going to change some aspects of my lessons.

I learnt most about the ways in which primary age pupils develop and I was challenged on some unscientific myths I had heard and not previously questioned. For instance "they suck it up like sponges", "primary kids are better and learning languages", etc.

Data also showed that participating foreign language teachers did not always have a full understanding of child learning processes and development considerations in the language classroom.

All of it was learning for me. From discovering the way children learn, to discovering they change their learning skills through childhood.

I had not considered the impact that cognitive development has on the kind of language instruction students receive, such as implicit vs explicit tasks. I had also not considered the way motivation and engagement changes from grade 1-5.
I didn't know about this research: Research shows that as learners progress through primary school their emotional and cognitive engagement changes.

There was further evidence that participants were developing an awareness of research and its links to practice. An interesting theme emerged from the data which appeared to show that teachers found value in research validating or explaining existing practices and classroom observations:

The research cited has confirmed and clarified many of my instinctive feelings about children's language learning but I have had lots of light bulb moments too and go away reinvigorated and reignited in my drive towards more effective teaching and learning practices. I will really focus on even less telling and more doing.
I knew that it [formulaic language] was important, but until today, after 14 years of teaching practice, I really understand why ... It's the base in which my students will step to start more creative language in the future. I've always used them in my classes, but now I see the point of it.

I learned that my classroom experience is backed up by research that both gesture and judicious introduction of appropriate grammar is useful even to the youngest children.

Furthermore, there was also evidence of research inspiring practical experimentation:

I will use more fun games and repetitive tasks with younger children as they are more implicit learners. I will aim to provide the older children with a reflective and more structured approach to learning.
The first thing I plan to do is to find out the interests of my students of different ages. These interests will help me to motivate them with elements that are familiar and interesting to them
I had already decided to introduce a phonics learning system in September having identified weaknesses in reading skills in my pupils. The MOOC has confirmed this is the correct course of action and has given me additional ideas.

Participants also reported that the MOOC course and engagement with research evidence had increased their confidence about existing practices.

As a teacher, you sometimes feel that you are failing in certain areas, and this course has taught me that this is not necessarily due to deficiencies in the teaching but rather that this is common and just the way children's foreign language skills develop. For instance, children finding it more difficult to remember and use verbs in their writing.

I won't be afraid of teaching set phrases without breaking them down into units of language.

### 3.2 Research question 2

Which step types, based on Laurillard's communication/modelling cycles for learning environment design, promoted the most learner engagement (operationalised as step completion)?

Descriptive analyses showed that 700 ( $30.04 \%$ ) participants out of 2338 active participants recorded at least some completed steps in the instructor communication cycle, which contained 14 steps in total. Of these, 546 participants ( $78.00 \%$ ) finished all 14 steps. It is important to note, though, that these learners represented only $23.35 \%$ of the entire sample of active participants (2338). 669 participants completed over half the steps in the instructor communication cycle, a total of $95.57 \%$ of the sub-sample or $28.61 \%$ of the entire "active" sample (2338 participants).

In the instructor practice modelling cycle, 728 (31.14\%) participants recorded at least some completed steps. Of these, 611 participants ( $83.93 \%$ ) finished all the 9 steps it contained. It is important to note, though, that these learners represented only $26.13 \%$ of the entire active sample. 687 participants completed around half the steps, a total of $94.37 \%$ of the sub-sample or $29.38 \%$ of the entire active participant sample.

Finally, for the peer communication modelling cycle (19 steps in total), 696 participants ( $29.77 \%$ ) recorded any completed steps. 537 participants ( $77.16 \%$ ) finished all 19 steps and these learners represented $22.97 \%$ of the entire sample. 667 participants completed around half the steps, a total of $95.83 \%$ of the sub-sample or $28.53 \%$ of the entire active participant sample.

Thus, for all three cycles, most participants who completed any of the steps they contained could be viewed as engaged with the learning activities represented.

To compare sample performance between the three cycles, Friedman's ANOVA (Figure 2) was conducted as a non-parametric test, used because the data violated assumptions of normality. This showed significant difference in step engagement when steps were grouped by cycles.

| Peer communication cycle | Adj. |
| :--- | :--- |
| 2.96 | Sig. |
| Instruction communication cycle |  |
| Instruction practice |  |
| modelling cycle |  |
| 1.02 |  |

Figure 2: Pairwise comparison of ranked data for completed steps grouped by cycles (mean ranks). Each node shows the sample number of successes.

Step engagement in the instructor communication cycle was significantly greater than step engagement in the instructor practice/modelling cycle, $\chi^{2}(2)=$ $1.006, p<0.0001$ (moderate effect size $r=0.50$ ). By contrast, step engagement in the instructor communication cycle was significantly lower than in the peer communication/modelling cycle, $\chi^{2}(2)=-0.930, p<0.0001$ (moderate effect size $r=-0.47$ ). The peer communication/modelling cycle also generated significantly more step engagement than the instructor practice/modelling cycle $\left(\chi^{2}(2)=-1.936, p<0.0001\right.$, large effect size $\left.r=-0.96\right)$.

So, if step completion could reasonably be deemed an indicator of participant engagement, the data showed that cycles of steps linked to different aspects of the formal learning process influenced learners differently, with most engagement prompted by the peer communication/modelling cycle. This is interesting because participants were invited to make comments and be involved in all cycles. Recall that the peer modelling cycle principally involved two kinds of activities: videos where participants watched practising teachers explaining their own principled teaching practices and differentiated opportunities to evaluate others' teaching or to discuss and experiment with their own pedagogic tasks. These kinds of steps were more successful at encouraging participants to engage fully with the content and to mark the step as complete.

## 4 Discussion

For research question 1, the study set out to explore the extent to which research-informed professional development activities could change teacher beliefs, knowledge and practice. It is important to note here that the qualitative results presented relate to a partial analysis of the dataset. Nonetheless, we believe that the findings show emerging patterns.

The evidence showed that changes in knowledge, understandings and beliefs were more prevalent in the data ( $n=1755$ counts) than changes in practice ( 478 planned; 132 enacted). This is not unexpected as previous research has shown that changing teachers' beliefs/knowledge is easier than realising adaptations in teaching practice, and that changes in the former generally precede the latter (as summarised in Macaro et al. 2015). Our findings supported a view that CPD has the potential to influence practice but, like Cabaroglu \& Roberts (2000), we sought a more nuanced view of change. However, while study sought to distinguish between change and modification, we explored whether changes were planned or enacted. We found that teachers were more likely to reflect on possibilities for change rather than report actual enactment of changes in practice. This, we believe, was largely driven by lockdown conditions enforced at the time of data collection but could indicate that other contextual (time constraints, curricular requirements) or individual factors (teacher confidence/expertise, motivation) might influence enactment of changes in practices.

The data also supported the Marsden \& Kasprowicz (2017) view that teachers are interested in engaging with research and readily discussed and explored research: $23 \%$ of comments coded showed discussion of MOOC research findings. Whilst the MOOC title mentioned research ("... putting research into practice"), it was primarily advertised as: "discover engaging, age-appropriate teaching methods and ideas to enhance your foreign languages teaching skills for children". This, we believe, lends some weight to our interpretation that the research content, albeit explicitly linked to practice, was valued. However, it is important to note that the way in which research was presented might have facilitated such explorations. Firstly, the teachers viewed videos hosted by researchers which distilled findings into three or four distinct messages, framed as pedagogic principles. These steps showed the highest counts of changes in beliefs. Teachers were also able to access a weekly research reading using accessible language as well as "teacher-friendly" research summaries, hosted off-platform. In other words, considerable efforts were made to a) translate research findings into workable
pedagogic suggestions and b) to distil research findings into clear and accessible formats. We suggest that the MOOC format offers an opportunity for "international, systematic and sustainable" practitioner engagement with research findings (Marsden \& Kasprowicz 2017: 613)

In terms of themes which emerged from the quantitative and qualitative data, participants' views often reflected those noted in the literature, especially regarding lay wisdom and a lack of subject-specific pedagogic knowledge (Barrios 2014, Garton et al. 2011). For example, comments relating to changes in beliefs/knowledge about developmental issues perhaps show that ToYLLs tended not to consider these in FL classrooms (Hild 2017, Rea-Dickins \& Gardner 2000). Comment analysis also showed subject-specific knowledge deficits followed by awareness raising and improved understanding around: motivation and progression (Courtney et al. 2017), how grammar is learned (Graham et al. 2017, Kocaman \& Cansiz 2012, Roothoft 2017), multimodality (Mitchell \& Myles 2019, Myles \& Mitchell 2012, Porter 2020) and FL literacy (Porter 2020). The aforementioned studies have shown that these factors are likely to affect FL outcomes and are therefore important in primary FL pedagogy. It is important to note, however, when looking at frequency counts for patterns in the qualitative data, that the MOOC audience was diminishing each week. Therefore, engagement numbers need to be viewed as a proportion of active learners rather than as an indicator of overall engagement.

For research question 2, we set out to explore whether Laurillard's framework for learning environment promoted the most learner engagement, evidenced by step completion metrics. Both the descriptive and inferential statistical analyses showed a particular tendency for step completion of the peer communication and modelling cycles to be greater than the instructor practice and instructor modelling cycles respectively. Learner comments also acknowledged the perceived usefulness of collaboration and co-construction with peers.

All the cycle data do demonstrate, however, the relative accessibility and potential for engagement of each cycle and its related steps. They also show that whilst attrition is a real issue for online CPD activities, those participants who joined each week were engaged and committed, completing most of the available steps and contributing rich and expansive comments. In other words, online CPD can be linked to the kinds of cycles of interaction proposed by Laurillard and suggest that the Conversation Framework could be a useful tool to examine the optimal conditions for participant engagement in online learning (Laurillard 2012).

## 5 Conclusion and implications for practice

This study has shown that a short CPD course has the potential to influence teacher beliefs, knowledge and practice, albeit that this relies on reported instances of planned or enacted change. It suggests that scaffolded access to research, that is research produced in a teacher-friendly format with pedagogic models (in the form of principles and teacher stories) can be a useful tool to encourage change. It also found differences between planned and enacted change. This requires further empirical investigation to determine, for example, whether any, contextual or individual factors might support or impede enacted practice.

In terms of optimal learning design, our data suggested that accessible communication of new knowledge and generation of questions to explore concepts is likely to be helpful in underpinning professional development. However, further analyses, exploring participant interaction across a wider range of communication cycles, will enable us to better understand the contribution of the peer communication and modelling cycle to the teacher learning process.

On a broader level, our online CPD MOOC attracted a large and diverse global audience. We believe this supports the view that primary languages professionals are eager to bridge any gaps between their own beliefs and research findings. The contribution of Florence Myles to helping such professionals developing their understanding of early language learning cannot be overestimated, and we are proud to have worked with her on this MOOC initiative.

## Appendix A Deductive coding framework for platform comments data

| Parent Nodes | Child Nodes |
| :--- | :--- |
| Changes in teacher understanding: New or | Developmental change during middle child- |
| adapted understandings, beliefs, knowledge | hood |
| about: | The importance of progression for motiva- |
| - change $=$ new understandings/beliefs/ | tion |
| knowledge | Learning of grammar |
| - change = refined/adapted understandings/ | Learning vocabulary |
| beliefs/knowledge | Multimodality |
| - change = realisation/affirmation of existing | Planning for progression |
| tacit understandings/beliefs/knowledge | Learning to read in the FL |
|  | Learning to write in the FL |
|  | Independent language use |
|  | Learning vocabulary |
|  | Multimodality |


| Parent Nodes | Child Nodes |
| :--- | :--- |
| Changes in teaching practice (planned)/ | To support motivation and/or engagement |
| expression of a desire to change, potential | To support language use |
| for change in teaching: | To support grammar teaching |
| - change = contrasting prior practices with | To support use of multimodality |
| future ones | To support FL reading |
| - change = additions to existing pedagogic | To support FL writing |
| repertoires | To support independent language use |
| - change = adaptations to existing pedagogic |  |
| repertoires |  |
| Changes in teaching practice (enacted): | To support language use |
|  | To support grammar teaching |
|  | To support use of multimodality |
|  | To support FL reading |
|  | To support FL writing |
|  | To support independent language use |
|  | To support independent language use |
| MOOC as an opportunity for teacher learn- | Reported opportunities to share and collab- |
| ing: | orate |
|  | Actual sharing of practices between teach- |
|  | ers |
|  | Newly designed activities through Padlet |
|  | wall |
| Explicit reflections on MOOC research con- | Articulation of research findings |
| tent: | Discussion of research findings |
|  | Request for clarification/explanation of re- |
|  | search findings |
|  | Actual observations of changes in learning/ |
|  | outcomes |
| Explicit reflections on pupil learning: |  |

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## Chapter 5

## Metalinguistic awareness in early foreign language learning

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The introduction of foreign language teaching at younger ages in schools around the world has prompted debate about the role of explicit teaching and learning in children. In particular, there is discussion regarding the extent to which formfocused instruction can effectively develop young learners' metalinguistic awareness and the usefulness of this knowledge for early foreign language learning. Findings to date suggest that contrary to the common assumption that children's language learning is implicit, primary-school age pupils can and do learn explicitly at least to some extent, provided that certain conditions are met. We present results from a classroom-based, quasi-experimental study with 9 to 11-year old learners of German as a foreign language in primary schools in England. The study explored the effectiveness of input-based explicit grammar instruction for developing learners' metalinguistic knowledge of nominative and accusative case marking on masculine definite articles in German. Pre- and post-test data indicate that the learners were able to consistently and accurately discuss the grammatical role of the target structures and make use of appropriate metalinguistic terminology when doing so. In contexts such as England, children starting a foreign language at the age of 7 have already been exposed to extensive explicit training in their first language, including in relation to their understanding and use of core metalinguistic terminology. Therefore, the findings highlight the value of harnessing young learners' existing metalinguistic knowledge when introducing new second language structures.

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## 1 Introduction

### 1.1 Early foreign language learning

The introduction of languages within England's primary school curriculum since 2014 has, unsurprisingly, prompted much discussion about appropriate pedagogy for children in the 7 to 11 age range (Holmes \& Myles 2019). In the field of classroom second language (L2) teaching and learning, a long-standing issue is the place of form-focused instruction and the related debate about the role of metalinguistic awareness in child learners.

In this chapter, we present a brief overview of the theoretical conceptualisation of the notion of metalinguistic awareness, followed by a summary of key empirical studies investigating child learners' metalinguistic abilities. We then present data that speaks to the question of whether explicit grammar instruction can effectively develop young learners' verbalisable metalinguistic knowledge. We consider to what extent such knowledge is retained over time as well as the issue of young learners' ability to make use of metalinguistic terminology when talking about the L2. Both quantitative and qualitative results pertaining to these questions are discussed. In the concluding section, we integrate our findings with previous work in order to highlight the level of metalinguistic awareness which primary-school children are able to develop in instructed settings and to point towards the potential benefits of metalinguistic ability in children's L2 learning.

### 1.2 Theoretical background

The notion of metalinguistic awareness is closely related to the concepts of metalinguistic knowledge and metalinguistic ability. Metalinguistics refers to linguistic activity which focuses on language as an object in its own right (Gombert 1992). Metalinguistic knowledge can be regarded as analysed knowledge about language; it is distinguishable from linguistic knowledge by virtue of its greater level of generality, including knowledge of general principles applicable to more than one language (Bialystok 2001). Metalinguistic ability can be defined as "the capacity to use knowledge about language as opposed to the capacity to use language" (Bialystok 2001: 124), i.e. linguistic ability, while metalinguistic awareness suggests that the language user's attention is "focused on the domain of knowledge that describes the explicit properties of language" (Bialystok 2001: 127).

In applied linguistics research concerned with instructed L2 learning, metalinguistic awareness is typically conceptualised in terms of explicit knowledge about language. In this research tradition, a distinction between explicit knowledge on
the one hand and implicit knowledge on the other hand is made. Explicit knowledge "is knowledge about language and about the uses to which language can be put" (Ellis 2004: 229). It is knowledge an individual is consciously aware of, and, memory permitting, is potentially able to articulate (Ellis 2004). Explicit knowledge is represented declaratively (Hulstijn 2005) and is subject to controlled processing (Ellis et al. 2009).

Knowledge of technical metalinguistic terminology or metalanguage such as "subject", "co-ordinating conjunction", "accusative case" or "intransitive verb" is not seen as an essential component of metalinguistic awareness, knowledge or ability, nor indeed of explicit knowledge about language, though it is often acquired in parallel (Ellis 2004). Accordingly, some researchers make a point of distinguishing between analysed knowledge on the one hand and knowledge of metalanguage on the other hand (Gutiérrez 2016), equating analysed knowledge with knowledge that is available to consciousness but not necessarily for verbal report. Conversely, knowledge of metalanguage comprises knowledge of technical terminology and entails the ability to verbalise analysed knowledge. Thus, analysed knowledge can be held independently of knowledge of metalanguage, in the sense that learners may be aware of a grammatical systematicity and may be able to deliberately draw on this analysed knowledge to inform their language use, but may be unable to articulate or describe it. For instance, a speaker may know that the sentence fane rarely goes to the zoo is acceptable while the sentence fane goes rarely to the zoo is dispreferred in English, but they may not be able to express the reasons for this. Of course, in instructed settings, metalinguistic labels such as "subject", "object" or "pronoun" are often taught alongside the concepts they denote, although this is arguably more common with cognitively mature than with young learners. It is immediately obvious that knowledge of metalinguistic terminology is useful for the purpose of description, explanation and hence the verbalisation of metalinguistic knowledge. In other words, if a learner is to be made aware of a pattern, or if they have discovered a regularity themselves, the existence of a commonly understood label to name the pattern or regularity is of practical benefit.

Metalinguistic awareness in the sense of explicit knowledge about language can be measured by means of tests and/or verbal reports. As quantitative instruments, tests allow for relatively fast measurement in a single administration session, and measures that are suitable for primary school-age children are available (e.g. Hakes 1980, Pinto et al. 1999, Tellier 2013). Verbal reports as evidence of metalinguistic awareness can take the form of task-concurrent think-aloud protocols or retrospective stimulated recall protocols. Both approaches ask learners
to verbalise any patterns, systematicities or rules they have noticed in the input during an experimental treatment or while performing a task. Responses are then analysed in order to establish the learner's level of awareness and/or their use of metalanguage.

### 1.3 Empirical background

At first glance, one might wish to discount more qualitative verbal reports for use with young learners, since children may lack the terminology to articulate their metalinguistic awareness. However, at least two studies have successfully used guided group discussions and interviews to investigate the metalinguistic awareness of young learners in this way (Ammar et al. 2010, Bouffard \& Sarkar 2008).

Bouffard \& Sarkar (2008) trained 8 to 9-year-old first language (L1) English children to notice and repair L2 French errors, identify the language features involved, negotiate form and perform grammatical analyses. The setting for the study was a French immersion programme in Canada, where English-speaking children are educated in a French environment from ages 5 to 6 onwards. According to the researchers, children typically achieve good levels of reading and listening comprehension, but their productive skills remain weaker. As a possible remedy to this situation, the researchers trialled a form-focused approach aimed at improving children's oral and written language development via prior enhancement of their metalinguistic awareness.

Children from two intact classes took part in a three-stage training programme over three months. First, communicative classroom activities were video-recorded on 23 occasions. Corrective feedback, mostly in the form of elicitation, metalinguistic clues and repetition, was provided for lexical, phonological, grammatical errors and errors that could be directly attributed to transfer in order to prompt self-repair. Second, the footage was edited to obtain 287 isolated clips of error-feedback-repair sequences, amounting to 167 minutes in total. Third, children were audio-recorded over 28 sessions in which they were prompted to analyse the videotaped error sequences under teacher guidance. Each session involved four to seven children, with a total of 38 participants. The aim was "to push participants to achieve grammatical analysis through collaborative discussion" (Bouffard \& Sarkar 2008: 8).

The results demonstrated an improvement over time in children's metalinguistic abilities regarding the discussion of errors, that is, children gradually became more adept at labelling and analysing errors featuring in the taped episodes. Lexical errors often occurred when children used light verbs such as faire 'make,
do' instead of choosing more precise alternatives. In the teacher-led discussion sessions, the children proved able to use strategies to enhance their metalinguistic awareness. They acknowledged differences between English and French and were able to attend to the negotiation of form. Grammatical errors were analysed in terms of noun phrase and verb phrase errors. Children demonstrated knowledge of the gender of French nouns and determiners, and they were able to pinpoint the absence of grammatical gender in English. Verb phrase errors proved to be more challenging. Towards the end of the data collection period, instances of successful metalinguistic analysis began to appear. In the area of transfer, lexical mapping errors occurred when an L1 word corresponded to more than one L2 word, e.g. "know" and savoir/connaître. With prompting, children were able to compare L1 and L2 and thus showed facility in identifying the likely cause of such errors. Word order errors proved challenging and required teacher guidance in order to be identified and labelled with appropriate metalinguistic terminology.

In sum, the findings suggested three consecutive phases of metalinguistic development. In the earliest phase, children were able to correct errors, but required extensive prompting to achieve identification. In the second phase, the young learners began to make metalinguistic guesses and tried to use metalinguistic terminology. These strategies led to the realisation that error analysis was possible. Negotiation of form came more easily, and children moved into the final stage, in which they used metalinguistic terminology appropriately. They were able to identify, correct and analyse errors and occasionally were able to propose explanations. Thus, over the three months of the study, the teacher-led small-group discussions enabled the children not only to develop considerable metalinguistic awareness, but also to articulate it.

More recently, Bell et al. (2020) investigated young learners' spontaneous use of cross-linguistic connections without teacher intervention in two groups of francophone children, also in a Canadian context. They described these as verbalised, metalinguistic reflections comparing two or more languages. Their study was carried out with nine primary (aged 11 to 12 ) and 16 secondary (aged 15 to 16) students who were following a regular L2 English programme comprising 1-2 hours of instruction per week. The task required the students, working in dyads, to edit an English paragraph containing 19 errors whilst justifying each change. A number of linguistic features were chosen that differ between English and French, such as adverb placement and choice of preposition. Learners' discussions were analysed for cross-linguistic connections, operationalised as justifications including references to the L1. For example, one participant noted that "There's no S in their because it's like in French leur face" (Bell et al. 2020: 103). In fact, out of a total of 195 metalinguistic reflections, only 28 were categorised as
cross-linguistic in nature, leading the researchers to conclude that participants infrequently used cross-linguistic connections when completing a metalinguistic task in the L2. Of the 28 episodes, 15 contained no rule and of the 13 that did, only six included a verbalisation that demonstrated the participants were aware they were contrasting English and French. Primary-school students made fewer crosslinguistic connections than secondary-school students, which was attributed to the greater focus on explicit grammatical knowledge in the secondary school system. The researchers nevertheless argue that explicit knowledge about the L1 has a potentially important role to play in the L2 classroom and suggest that encouraging the use of such knowledge may demonstrate to learners the value of understanding their L1 system. The nature of the particular grammatical feature may, however, be pertinent (McManus 2019).

Despite the comparative approach taken in the above studies, many teachers still tend to avoid the L1 in the classroom (Horst et al. 2010), possibly because of the perceived failure of approaches informed by classic contrastive analysis (Bell et al. 2020). However, as recent research demonstrates, interest has grown in a more holistic approach that seeks to draw on learners' ability to reflect on language, including the relationship between L1 and L2 (see Hall \& Cook 2012).

Horst et al. (2010) developed a series of cross-linguistic awareness activities for 48 francophone learners of English in Québec, Canada, based on a range of linguistic features, including ones that tend to be problematic for French-speaking learners, such as the possessives "his" and "her". Having demonstrated that many of the young learners were able to compare the two languages and note useful points of similarities and differences, the authors concluded that raising crosslinguistic awareness is "a viable pedagogy with demonstrable advantages for learners" (Horst et al. 2010: 347). White et al. (2007) also investigated the acquisition of English possessive determiners, albeit with slightly older learners aged 13 to 14, and with French or Spanish/Catalan language backgrounds. The research consisted of two parallel studies carried out in schools in Québec and Catalonia, Spain. The instructional treatment involved providing learners with two types of explicit information about his and her. They were given a rule of thumb ("whose ... is it?") and then a comparison between possessive determiners in English and in their first languages (French or Catalan/Spanish). The five-week intervention showed that the students were able to verbalise their choices, using metalinguistic terminology. The researchers found that not only was explicit instruction effective in developing the learners' ability to use and understand the possessive determiners, but that this was the case for both language backgrounds. In a Scottish context, Kanaki (2020) carried out an ethnographic study of 53 monolingual English-speaking primary-school children aged 10 to 11 who were learning

French. She found that the young participants were able to express reflections on language analysis and on their own learning strategies but were more likely to focus on similarities between the two languages than differences.

In summary, findings to date suggest that even young learners are capable of metalinguistic reflection involving a comparative analysis of L1 and L2. However, research is still somewhat limited in terms of the languages and the learning settings being investigated, since most studies have focused on English and French in a Canadian context, where both languages have an equivalent status. The study reported in this chapter was conducted in a UK context with German as the target L2, i.e. a foreign language that is not present in the children's everyday lives.

## 2 Research issues and methodology

The data presented below is taken from a wider study (Hanan 2015, Kasprowicz \& Marsden 2018) investigating the effectiveness of explicit grammar instruction for young L1 English learners of L2 German in a primary-school context in England. In the present chapter, the following research questions are addressed:

1. To what extent is explicit grammar instruction effective in developing young learners' verbalisable metalinguistic knowledge?
2. To what extent is this knowledge durable over time?
3. To what extent are learners able to make use of metalanguage (i.e. technical terminology) when talking about the L2?

Two types of input-based explicit grammar practice, that is, task-essential form-meaning connection practice versus task-essential form-spotting practice, were investigated to establish their effectiveness for learning definite article case marking in German (see Kasprowicz \& Marsden 2018 for detailed analysis and discussion) and for developing learners' metalinguistic knowledge related to this grammatical structure, which is the focus of the current chapter. The target structure - nominative (der 'the-Nом') and accusative (den 'the-ACc') case-marking for masculine definite articles in German - can be problematic for L1 English learners due to their tendency to rely on word order (the more reliable cue in English) when interpreting and assigning grammatical roles (subject/object) in German sentences (Culman et al. 2009, Jackson 2007, VanPatten \& Borst 2012).

A classroom-based experimental study involving pre-test (week 1), a five-week teaching intervention, post-test (week 7), and delayed post-test (week 16) was
conducted across three primary schools in England. Participants (aged 9 to 11) from four classes were randomly assigned to two experimental groups who received explicit information on the target structure followed by either task-essential practice requiring attention to the target structure's form-meaning connection (TE-FM group, $n=45$ ) in line with VanPatten's (2002) referential activities, or enriched input practice requiring learners to spot the target form only (TE-F group, $n=41$ ), in line with Reinders \& Ellis (2009).

The explicit information consisted of:

1. a short explanation of the terms "subject" and "object" with example sentences in the learners' L1 English (in weeks 1 and 2 only)
2. an explanation of the function of the masculine articles der and den, alongside example sentences in L2 German (in weeks 4 and 5, it was also highlighted that the feminine and neuter articles do not change in this context), and
3. a reminder of the importance of paying attention to the articles in German sentences due to the flexibility of word order, alongside example object-verb-subject sentences.

As exemplified in Figure 1, the TE-FM activities were designed in such a way that learners were required to make the connection between the target form and its meaning in order to correctly complete the activity. For example, both nouns are missing from the sentence; therefore, in order to identify the correct position for each noun, the learner had to notice the case marking on each article and the corresponding meaning conveyed (der 'the-nOm' indicating subject; den 'theAcc' indicating object). Further, the word order was manipulated (items varied between subject-verb-object and object-verb-subject order) to ensure that learners were unable to rely on a default "first noun is the subject" strategy (VanPatten 2002).

In contrast, the aim of the TE-F activities was to draw learners' attention to the grammatical form only and did not push learners to make the additional step of connecting form with meaning. The TE-F activities provided enriched input (i.e. exemplars of the target structure); however, the primary focus was vocabulary practice. For example, as shown in Figure 2, only one noun is missing from the sentence, and the learner must choose which of the two nouns provided completes the sentence. One of the nouns appears in the corresponding picture and one does not. Learners then completed the "form spotting" task, in which they had to identify the target structure within each sentence.

Decide which noun fits in each gap, so that the sentence matches the picture.

Den $\qquad$ wäscht der $\qquad$ .
The ACC $\qquad$ washes the NOM $\qquad$ .
"The $\qquad$ washes the $\qquad$ ."

Hund Mann


Figure 1: Example item from TE-FM intervention activity
Decide which noun fits in the gap, so that the sentence matches the picture. Then circle the different words for the.

Den $\qquad$ wäscht der Mann.
The ACC $\qquad$ washes the NOM man.
"The man washes the $\qquad$ ."

| Hund | Vogel |
| :--- | :--- |
| [dog] | $[$ bird $]$ |



Figure 2: Example item from TE-F intervention activity

Three intact classes formed a test-only control group ( $n=52$ ), who completed the pre- and immediate post-test, but continued with their normal German lessons during the intervention period, including practice of the vocabulary used in the test and intervention materials, but no explicit instruction on the target structure.

A battery of five outcome measures was developed to test learners' written and oral receptive and productive knowledge of the target structure (see Hanan 2015 and Kasprowicz \& Marsden 2018 for detailed discussion of these tests and associated results). In addition, a one-to-one think-aloud Sentence Reconstruction task was developed to measure the extent to which the learners were able to verbalise their knowledge and understanding of the target structure. The quantitative and qualitative results from this measure are the focus here.

The Sentence Reconstruction task was designed to measure learners' ability to make use of and verbalise the target grammatical rules, i.e. their metalinguistic knowledge. The task was completed one-to-one with the researcher and consisted of three items. For each item, participants were presented with a picture
and five words on individual pieces of paper. Participants were asked to create a sentence to match the picture by placing the words into the correct order. Each sentence was a simple noun-verb-noun construction, as shown in Figure 3. Participants were asked to explain why they had chosen that order for the words, with particular emphasis on the positioning of the articles.


Figure 3: Example item from Sentence Reconstruction task
Item 1 included a masculine subject and a masculine object to test learners' knowledge of the nominative (der) and accusative (den) case-marked masculine articles. Item 2 included a masculine subject and a feminine or neuter object, and item 3 included a feminine or neuter subject and a masculine object. In German, feminine and neuter articles do not change between the nominative and accusative cases; therefore, items 2 and 3 gave the opportunity for learners to demonstrate metalinguistic reasoning by applying their knowledge of the masculine articles to work out the grammatical roles of nouns in sentences containing a non-case-marked feminine or neuter article.

Participants' explanations were scored; one point was awarded for correctly explaining the function and position of each article within an item (e.g. for the item in Figure 3, the explanation "der is placed in front of Mann because the man is doing the writing" would receive one point). Across the three items within the task, a total of six points was available. The data were non-normally distributed; therefore, non-parametric statistical tests were employed. Friedman's ANOVA followed by pairwise comparisons with Bonferroni correction was used to analyse changes in the TE-FM and TE-F groups' performance over time. A Kruskal-Wallis test followed by pairwise comparisons with Bonferroni correction was used to compare the performance of the three groups at pre- and posttest. The control group did not complete the delayed post-test; therefore, a Mann Whitney U-test compared the performance of the TE-FM and TE-F groups only.

Cohen's $d$ effect size was calculated to indicate the magnitude of the observed effects and interpreted using Plonsky \& Oswald's (2014) field-specific benchmarks for between-group contrasts (small, $d=0.40$; medium, $d=0.70$; large, $d=1.00$ ) and within-group contrasts (small, $d=0.60$; medium, $d=1.00$; large, $d=1.40$ ).

Additionally, data-driven thematic coding provided a more in-depth, qualitative analysis of the content of participants' explanations. Participants were not required to use metalinguistic terminology within their explanations; however, as can be seen from the results presented below, many participants were able to utilise relevant terminology.

## 3 Results

### 3.1 Quantitative analysis of the sentence reconstruction task

As reported in Hanan (2015) and Kasprowicz \& Marsden (2018), there was a significant change over time in both the TE-FM $\left(\chi^{2}(2)=65.790, p=0.001\right)$ and TE-F $\left(\chi^{2}(2)=59.842, p=0.001\right)$ groups' scores.

Pairwise comparisons revealed a significant increase in scores between preand post-test for both groups (TE-FM, $p=0.001, d=5.12$; TE-F, $p=0.001$, $d=4.28$ ), reflecting substantial improvement in the learners' ability to provide accurate explanations relating to the function and position of the target structure. Notably, however, a significant decrease in both groups' performance was observed between post- and delayed post-test (TE-FM, $p=0.015, d=-0.69$; TE-F, $p=0.015, d=-0.74$ ), suggesting a decline in their ability to articulate the target grammatical rules, although for both groups performance remained significantly higher at delayed post-test than at pre-test (TE-F, $\mathrm{M}, p=0.001, d=2.71$; TE-F, $p=0.001, d=3.20$ ).

In terms of between-group comparisons, there was no significant difference between the TE-FM, TE-F and control groups' performance at pre-test $(H(2)=$ $3.90, p=0.143)$. Examination of the descriptive statistics revealed that none of the groups were able to provide accurate explanations at this time point. At posttest, however, a significant difference between the three groups was observed, which pairwise comparisons indicated was due to both the TE-FM $(p=0.001, d=$ 4.56 ) and the TE-F ( $p=0.001, d=3.17$ ) groups significantly outperforming the control group. At delayed post-test, there was no significant difference between the TE-FM and TE-F groups' scores $(U=748.000, z=-1.527, p=0.127, d=$ 0.27 ), indicating that there was an equivalent decline in both groups' scores at this time point.

Table 1: Descriptive statistics

|  | Pre-test |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $n$ | $M$ | $S D$ | Min | Max |
| TE-FM | 45 | 0.07 | 0.33 | 0 | 2 |
| TE-F | 41 | 0 | 0 | 0 | 0 |
| Control | 52 | 0 | 0 | 0 | 0 |
|  | Post-test |  |  |  |  |
|  | $n$ | $M$ | $M$ | $M$ | $M$ |
| TE-FM | 45 | 4.78 | 4.78 | 4.78 | 4.78 |
| TE-F | 41 | 4.32 | 4.32 | 4.32 | 4.32 |
| Control | 52 | 0.04 | 0.04 | 0.04 | 0.04 |
|  |  |  | Delayed |  |  |
|  | $n$ | $M$ | $M$ | $M$ | $M$ |
| TE-FM | 45 | 3.46 | 3.46 | 3.46 | 3.46 |
| TE-F | 41 | 2.9 | 2.9 | 2.9 | 2.9 |
| Control | 52 | - | - | - | - |

To examine the proportion of learners in the TE-FM and TE-F groups who were able to provide correct explanations at post- and delayed post-test, the learners were divided into sub-groups according to their score on this task: "High-Scorers" who scored 5 or more out of 6 , "Mid-Scorers" who scored 3 or 4 out of 6 and "LowScorers", who scored 2 or less.

At post-test, approximately two thirds of the learners in both the TE-FM and TE-F groups were able to consistently provide correct explanations relating to the position and function of the articles in the three items within the task ("HighScorers"). A further $31 \%$ in the TE-FM group and $20 \%$ in the TE-F group were able to provide correct explanations but showed some inconsistency in their responses ("Mid-Scorers" who scored 3 or 4 out of 6 , indicating insufficient and/or incorrect explanation(s) for at least one of the test items). Additionally, a small number of learners (TE-FM, 9\%; TE-F, 20\%) demonstrated limited verbalisable knowledge of the target structures ("Low-Scorers"). In contrast, at delayed posttest, there was a decline in the proportion of "High-Scorers" on this task (TE-FM, $42 \%$; TE-F, $39 \%$ ) and a corresponding increase in the proportion of "Low-Scorers" in both groups (TE-FM, 33\%; TE-F, 41\%).

In terms of the nature of learners' responses on this task, the explanations were examined to explore the extent to which correct explanations included the use of metalinguistic terminology (i.e. relevant grammatical terms such as "subject" and "object").

Table 2: Proportion of "High-Scorers", "Mid-Scorers", and "LowScorers"

| Group | Sub-group | Post-test |  | Delayed post-test |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $n$ | \% | $n$ | \% |
| TE-FM ( $n=45$ ) | High scorers ( $>5$ ) | 27 | 60 | 19 | 42 |
|  | Mid-scorers (3-4) | 14 | 31 | 11 | 25 |
|  | Low scorers (<2) | 4 | 9 | 15 | 33 |
| TE-F ( $n=41$ ) | High scorers ( $>5$ ) | 25 | 60 | 8 | 20 |
|  | Mid-scorers (3-4) | 8 | 20 | 16 | 39 |
|  | Low scorers (<2) | 8 | 20 | 17 | 41 |

Table 3: Proportion of learners correctly employing grammatical terminology

| Group | Post-test |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Subject |  | Object |  | Masc. |  | Fem. |  | Neut. |  |
|  | $n$ | \% | $n$ | \% | $n$ | \% | $n$ | \% | $n$ | \% |
| $\begin{aligned} & \text { TE-FM }(n=45) \\ & \text { TE-F }(n=41) \end{aligned}$ | 40 | 89 | 39 | 87 | 21 | 47 | 28 | 62 | 22 | 49 |
|  | 32 | 78 | 33 | 80 | 25 | 61 | 26 | 63 | 15 | 37 |
|  | Delayed post-test |  |  |  |  |  |  |  |  |  |
|  | Subject |  | Object |  | Masc. |  | Fem. |  | Neut. |  |
|  | $n$ | \% | $n$ | \% | $n$ | \% | $n$ | \% | $n$ | \% |
| TE-FM ( $n=45$ ) | 25 | 56 | 30 | 67 | 21 | 47 | 18 | 40 | 17 | 38 |
| TE-F ( $n=41$ ) | 22 | 54 | 22 | 54 | 24 | 59 | 16 | 39 | 16 | 39 |

As detailed in Table 3, when learners made use of grammatical terminology (i.e. technical metalanguage) within their explanations, these tended to centre on terms related to describing the grammatical function and/or grammatical gender of the articles and nouns within each sentence. For each grammatical term, one correct usage was counted per learner at each time point. At post-test, the majority of learners in both the TE-FM ( $89 \%$ ) and TE-F ( $78 \%$ ) groups were able to utilise the terms "subject" and "object" correctly on at least one occasion during completion of the task. In addition, up to two thirds of the learners were able to correctly make use of at least one relevant term related to grammatical gender (masculine, feminine, and/or neuter). At delayed post-test, a drop in the use of grammatical terminology was observed, although just over half of the participants were still correctly utilising the terms "subject" (TE-FM, 56\%; TE-F, 54\%) and "object" (TE-FM, $67 \%$; TE-F, $54 \%$ ). It is important to note that some learners were still able to provide correct explanations relating to the target structure without the use of grammatical terminology, as detailed below.

### 3.2 Qualitative analysis of participants' explanations

In order to provide a complementary picture of learners' verbalisable metalinguistic knowledge of the target structure, responses on the Sentence Reconstruction task were analysed thematically. The findings at each time point are presented in turn to illustrate changes in learners' verbalisable knowledge between pre-, post- and delayed post-test.

### 3.2.1 Explanations provided at pre-test

At pre-test, there were no instances of learners discussing the function of the target structure (der and den) in assigning grammatical roles (subject and object respectively) for masculine nouns in German sentences. This was as expected, given that the learners had received no instruction on this grammatical structure prior to the study. Rather, the learners utilised a range of strategies to work out and explain the word order chosen for each sentence. Often this would be based on translation into English, with many learners able to recognise the role of der, den, die, and das as articles, although there were no instances of learners using the grammatical term "article" in their explanations:

R: And why did you put der [the-NOM] with Mann [man] and den [the-ACc] with Brief [letter]?

P: Because Brief [letter] means letter and in English we would say the letter or a letter so den [the-ACc] would go next to it.
(Participant 34, TE-F, School 2)

At pre-test, learners' explanations also tended to centre on discussion of the grammatical gender of the nouns in each sentence. In many cases, learners were able to utilise appropriate metalinguistic terminology (masculine, feminine, neuter) in their responses:

R: OK so we've got der Hund [the-nom dog]. Why did you decide to put those two next to each other?

P: Because (.) the dog is (.) masculine and (.) die Katze [the-nom/acc cat] is feminine.
(Participant 133, Control, School 2)
In other cases, learners utilised more colloquial terms (e.g. male/female) to express their understanding of grammatical gender, whilst some learners associated grammatical gender with the biological gender of the associated referent:

P: Because um (.) der [the-nOM] wouldn't go with Frau [woman] because (.) der [the-NOM] is for male and (.) die [the-NOM/ACC] is for female. (Participant 45, TE-FM, School 1)
P: ... And I knew die [the-NOM/ACC] goes with woman because um (.) die [the-NOM/ACC] goes with (.) woman (.) no, yeah like woman and girls. And der [the-NOM] goes with boys and men. (Participant 80, TE-F, School 2)

Another common explanation related to the animacy of the referent involved:
R: Yes and why did you put den [the-Acc] with Frisbee [frisbee]?
P: Because it's like (.) with the letter it's like a thing. And then Jungen [boy] is a boy. And das [the-nOm/acc] goes with that. (Participant 97, Control, School 3)

Finally, there were also instances of learners relying on guesswork or intuition ("it sounds right") when deciding on the position of the articles within each sentence. As demonstrated by the extracts and observations above, at pre-test learners across all three groups did not express any awareness of the function of der and den in assigning grammatical roles within sentences. This finding is consistent with the learners' baseline performance on the receptive and productive outcome measures, indicating that they had no knowledge of these structures prior to the intervention.

### 3.2.2 Explanations provided at post-test

As reflected in the quantitative analysis above, a substantial change was observed in the explanations given by many of the TE-FM and TE-F learners at post-test. The majority of learners in these groups expressed a clear understanding of the function of der and den in assigning subject and object roles, respectively. As shown in Table 3 above, many of the learners were able to utilise appropriate metalanguage in their explanations:

P: Because I knew that der [the-NOM] is for the subject of the sentence, the thing that does the action. And den [the-Acc] is for the object, the thing being done to. And the dog is being chased by the bird. So der Vogel verfolgt den Hund [the-nom bird chases the-acc dog], and Hund [dog] is dog.
(Participant 33, TE-F, School 2)
Many learners were also able to articulate their understanding that for feminine and neuter nouns the same article (die and das respectively) is used for both the subject and the object of a sentence. The feminine and neuter articles had been briefly introduced during the explicit information provided in weeks 4 and 5 of the intervention. The learners' explanations demonstrated that they were able to utilise this information as well as apply their knowledge of the casemarked masculine articles to deduce the function of the "non-case-marked" article in sentences containing one masculine noun alongside a feminine or neuter noun.

P: I mean die [the-NOM/ACC] is a feminine noun and den [the-ACc] is (.) used for object, masculine. And die [the-NOM/ACc] can be used for subject and object. But because den [the-ACc] is used for the object, then die [the-NOM/ $\mathrm{ACC}]$ will be used for the subject of the sentence.
(Participant 50, TE-FM, School 1)
P: Well the kid is hugging the teddy bear and den [the-Acc] is um (.) the masculine word that's used as the object. So I thought das [the-nom/acc] must be the subject since den [the-Acc] is the object.
(Participant 25, TE-F, School 1)
Despite the successful use of grammatical terminology by many learners this was not a requirement for successful completion of the task. Some learners expressed their understanding of the function of the target structures in their own words, without the use of terms such as "subject" or "object":

P: Um because I know the Vogel [bird] was a bird and it was chasing the dog so I put der [the-NOM] there in front of Vogel [bird] and it was chasing (verfolgt [chasing]) um (.) and then the dog is being chased so it's den Hund [the-acc dog].
R: Yes the dog was being chased so it's den [the-acc]. Anything else you can tell me about der [the-NOM] or den [the-ACc] in that sentence?

P: $\underline{\text { dern }}$ [the-NOM] means it's doing the action and den [the-ACC] means it's receiving the action.
(Participant 14, TE-FM, School 2)
A number of learners also took the opportunity to express their awareness that word order is flexible in German:

P: Because der [the-nOM] is the (.) subject. $\operatorname{Der}$ [the-nOM] is to describe what the subject is. And das [the-NOM/ACc] is to describe what the object is. (.) Or you could do (.) um it that way round. (Pupil swaps der Vater [the-NOM father] and das Baby [the-NOM/ACC baby])

R: ok, das Baby küsst $\underline{\text { der }}$ Vater [the-NOM/acc baby kisses the-nom father]. Why can you have it that way round?
P: You can have it that way round because (.) you'll still know which way round it goes (.) because der [the-NOM] is the subject (.) and das [the-NOM/ $\mathrm{Acc}]$ is the object. (.)
(Participant 59, TE-FM, School 2)
Such responses demonstrated that these learners were no longer primarily relying on the word order cue from their L1 English and were able to correctly interpret object-verb-subject sentences by relying on the masculine articles (der and den) to assign grammatical roles to the nouns within the sentences. Nevertheless, some learners continued to associate the subject with the "first thing" in the sentence, and the object with the "second thing" in the sentence:

P: Well der [the-NOM] would go first because it's the subject and den [theACC] is the object. And because the ball is hitting the football player, then you would know that the ball goes there (next to der [the-NOM]) (.) first, and den Fu $\beta$ ballspieler [the-Acc footballer] would go afterwards because that's the thing being done to it.
(Participant 69, TE-F, School 1)

Finally, as reflected in Table 2, there were a small number of learners who did not express any awareness of the role-assigning function of der and den at posttest. Rather, their explanations continued to focus on gender, animacy, and/or guesswork, as at pre-test.

### 3.2.3 Explanations provided at delayed post-test

As noted above, at delayed post-test, a majority of the learners continued to demonstrate at least some awareness of the target structure (der and den) and their grammatical role-assigning function. As at post-test, many learners were able to provide appropriate explanations, either with or without metalinguistic terminology. In addition, learners in both the TE-FM and TE-F groups continued to demonstrate awareness of how to use the case-marked masculine articles to interpret sentences which also contained a non-case-marked feminine or neuter article, as well as how to interpret sentences in object-verb-subject word order. Nevertheless, as reflected in Table 2, there was a decline in some learners' ability to verbalise their knowledge of the target structures at delayed post-test. In particular, analysis of some learners' responses at delayed post-test suggested that their metalinguistic knowledge may be less reliable than at post-test.

## Post-test

P: [...] So I know den [the-Acc] is for the object so I know this (das [the$N O M / A C C]$ ) is going to be the subject. And the kid is the subject because he's doing (.) it's cuddling the teddy.

## Delayed post-test

P: Well the father is kissing the baby. These (der [the-NOM] and das [the-NOM/ ACC]) (.) das [the-NOM/ACC] can either go at the start or at the end, because if it's die [the-NOM/ACC] or der [the-NOM] (.) I think (.) they go at the start. But if it's uh (.) I can't remember the other one (.) den [the-ACC] or something, then that one (das [the-NOM/ACC]) goes at the start.
(Participant 15, TE-FM, School 2)
Additionally, at delayed post-test, there was a greater level of inconsistency in individuals' responses to the different items. This finding is reflected in the increase in the number of participants within the "Mid-" and "Low-scorer' groups at delayed post-test (see Table 2). There were many instances of individuals providing correct explanations, often utilising appropriate terminology, for one item, but then being unable to provide an appropriate explanation on another
item. Where students were unable to provide correct explanations, often their responses would centre on a discussion of the gender of the referents, as at pretest:

## Item 1:

P: Because um (.) das [the-NOM/ACc] means (.) um I don't know how to say it (.) if it's a baby, then das [the-NOM/acc] would go with the baby. And der [the-NOM] would go with (.) in front of a male. So I put der Vater [theNOM father] and das [the-NOM/ACC] in front of Baby [baby] and I put küsst [kisses] in the middle because the father was kissing the baby.

## Item 3:

P: Because the ball is what's doing the hitting (.) and the football player is the one that's getting it done to them

R: Ok, so why did you put der [the-NOM] uh (.) at the beginning, or with Ball [ball]?

P: Because the ball is the one that is hitting. Because you can (.) some German people put it that way (swaps order to Den Fußballspieler trifft der Ball [the-ACC footballer hits the-NOM ball]) and say it like that.

R: So den Fußballspieler trifft der Ball [the-Acc footballer hits the-nOm ball]. Ok
P: And it so you know (.) der [the-NOM] tells you (.) that's what's doing it and den [the-Acc] tells you who is receiving it.
R: Ok, so that (new order) means the same as the other way round?
P: Yes.
(Participant 22, TE-FM, School 2)
As shown in the example above, learners tended to be more consistent in their provision of correct explanations for items involving two masculine ( $m$ ) nouns (and therefore both der and den). Where items included a feminine $(f)$ or neuter ( $n$ ) noun, the learners tended to have more difficulty consistently providing correct explanations for the positions of the articles within the sentences; see also Table 4 for the mean score (out of 2) for each item type at post- and delayed post-test. Such inconsistencies contributed to the significant decline in learners' performance on the Sentence Reconstruction task at delayed post-test.

Table 4: Descriptive statistics by item at post- and delayed post-test (max. score per item $=2$ )

|  |  | Post-test $M(S D)$ |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $n$ | $\mathrm{~m}+\mathrm{m}$ | $\mathrm{m}+\mathrm{f}$ | $\mathrm{m}+\mathrm{n}$ |
| TE-FM | 45 | $1.69(0.67)$ | $1.51(0.66)$ | $1.58(0.72)$ |
| TE-F | 41 | $1.51(0.84)$ | $1.29(0.78)$ | $1.51(0.78)$ |
|  |  | Delayed $M(S D)$ |  |  |
|  | $n$ | $\mathrm{~m}+\mathrm{m}$ | $\mathrm{m}+\mathrm{m}$ | $\mathrm{m}+\mathrm{m}$ |
| TE-FM | 45 | $1.33(0.90)$ | $1.09(0.85)$ | $1.03(0.86)$ |
| TE-F | 41 | $1.33(0.91)$ | $0.95(0.76)$ | $0.62(0.75)$ |

## 4 Discussion

In response to Research Question 1, the quantitative and qualitative analysis of the Sentence Reconstruction task demonstrated that, following explicit grammar instruction, the majority of learners who received explicit information followed by either task-essential form-meaning connection practice (TE-FM group) or task-essential form spotting practice (TE-F group) were able to consistently and accurately discuss the function of the target grammatical structure, the masculine definite articles der and den. The explanations provided by learners at post-test indicated that they had robust verbalisable metalinguistic knowledge. Additionally, the majority of learners ( $>80 \%$ ) were able to accurately employ appropriate metalinguistic terminology in their explanations. These findings add to existing research findings which have demonstrated that young learners (in this study aged 9 to 11) can express their awareness of the form and function of linguistic structures and engage in language analysis (e.g. Bouffard \& Sarkar 2008; Horst et al. 2010).

It is important to note that a decline was observed in the learners' performance at delayed post-test along with a corresponding decline in the proportion of learners who were utilising metalinguistic terms in their explanations. With regard to Research Question 2, this finding suggests that without additional reinforcement and revisiting, learners' ability to verbalise their knowledge of grammatical rules is susceptible to decay over time. Furthermore, across the other receptive and productive outcome measures, learners in both the TE-FM and TE-F groups maintained their learning gains between post-test and delayed post-test (see Hanan

2015, Kasprowicz \& Marsden 2018). Principal component analysis revealed that at delayed post-test all outcome measures were loading onto one component, suggesting that by this time point all of the tasks were likely tapping into the same type of knowledge (see Hanan 2015 for a detailed discussion of this analysis). Therefore, it seems that it was specifically learners' ability to verbalise their explicit knowledge that had declined, rather than the knowledge underpinning their ability to accurately interpret and use the target structure.

In terms of Research Question 3, the analysis of the terminology learners utilised in their responses suggests that many learners had successfully developed both analysed knowledge (i.e. awareness of the relevant grammatical rules) as well as knowledge of metalanguage (i.e. the technical terminology needed to talk about language). Ellis (2004) notes that, whilst metalanguage in and of itself is not essential for the development of explicit knowledge, developing learners' knowledge of metalanguage (i.e. grammatical terminology) may help to strengthen their understanding of the linguistic constructs being learnt. In the present study, an association between performance on the Sentence Reconstruction task and use of technical terminology was observed, with the majority of High- and Mid-Scorers utilising relevant metalinguistic terminology in their responses. Notably, there were a small number of learners at post- and delayed post-test (four High-Scorers and one Mid-Scorer at each time point respectively), who were able to provide accurate explanations for the target structure without any use of technical terminology. However, it is not possible to determine whether this was due to a lack of knowledge or understanding of the relevant terminology or the learners simply choosing to express their understanding of the grammatical rules in their own words.

During the intervention, the TE-FM and TE-F learners were exposed to the metalanguage related to the target grammatical structures (e.g. subject, object, masculine, feminine, neuter) within the brief explicit information provided in weeks $1,2,4$, and 5 , prior to completion of the practice activities in each session (see description above and in Hanan 2015). The rationale for including an explanation of the terms "subject" and "object" in the context of the learners' L1 was to ensure that the learners had a clear understanding of these terms, prior to using them in the explanations related to the L2. Indeed, recent research indicates that provision of L1 explicit information (and practice) alongside L2 explicit information and practice may be beneficial in clarifying key concepts and establishing form-meaning mappings in the L1, prior to the application of these concepts for learning of target L2 structures (McManus \& Marsden 2017). Further, research has also indicated a relationship between learners' awareness of L1 and L2 differences and learners' performance on tasks requiring use of relevant grammatical
structures (Ammar et al. 2010, White \& Ranta 2002), as well as the potential usefulness of tasks that employ cross-linguistic comparisons (White et al. 2007). Therefore, whilst the present study did not seek to investigate the effectiveness of providing explicit information relating to terms and concepts in the learners' L1, the finding that the majority of TE-FM and TE-F learners were able to explain the function of the target structures and accurately used relevant terminology and/or their own words to do so, suggests that the explicit information which discussed the core concepts in the L1 prior to the application of these terms in the L2 is likely to have at the very least reinforced, if not established, learners' understanding of the core metalanguage and how this relates to particular grammatical structures in both the L1 and L2.

With regard to the relationship between L1 and L2 knowledge about language, some existing research has indicated that young learners are unlikely to spontaneously make cross-linguistic comparisons when engaging in tasks requiring language analysis in the L2 (e.g. Bell et al. 2020). Notably, Bell et al. (2020) observed that older learners (aged 15 to 16) were more likely to make crosslinguistic comparisons than younger learners (aged 11 to 12), which the authors attributed to the greater focus on explicit grammatical knowledge in language instruction for older learners. The present study has demonstrated that explicit grammar instruction, involving comparison with the L1, can also successfully develop younger learners' (aged 9 to 11) L2 metalinguistic knowledge and adds to existing studies which have demonstrated that younger learners are "mature enough to attend to form if they are taught how to" (Bouffard \& Sarkar 2008: 22).

## 5 Conclusion

The present study sought to investigate the extent to which young learners can develop verbalisable metalinguistic knowledge, as part of a larger study exploring the efficacy of explicit grammar instruction (see Hanan 2015, Kasprowicz \& Marsden 2018). The findings revealed that, following instruction which combined L1 and L2 explicit information, learners were able to consistently and accurately discuss the grammatical role of the target L2 structures, in a majority of cases, drawing on appropriate metalinguistic terminology to do so. Some decline in learners' metalinguistic knowledge and use of metalanguage was observed at delayed post-test (although not to baseline levels), suggesting that regular revisiting is needed to reinforce and maintain such knowledge. Notably, this study was conducted in England, that is, in an educational context where the development of learners' L1 metalinguistic knowledge is prioritised from an early age (DfE 2013).

Therefore, the findings support the suggestion that in such contexts the foreign language classroom can usefully draw on learners' developing L1 metalinguistic knowledge and harness the metalanguage that learners are expected to be familiar with when introducing new L2 structures. This would help to reinforce learners' understanding of cross-linguistic similarities and differences, supporting their L2 development, as well as underpin the value of their developing L1 knowledge (Bell et al. 2020).

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## Chapter 6

# CLIL to make primary pupils click for languages: Lessons from Hackney 

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#### Abstract

In this paper, we provide a brief overview of the Primary Languages landscape in England and highlight the issues it is facing. We present the best practice case of Hackney Education with special attention to its recent Content and Language Integrated Learning (CLIL) developments. We argue that a CLIL approach has the potential of addressing the challenges of implementing the national Modern Foreign Languages (MFL) entitlement at primary level by reducing the timetabling constraints, expanding the teacher pool, and adapting to children's cognitive development. Indeed, the delivery of disciplinary contents in another language maximises language input without extra pressure on the timetable. This format can also help address the shortage of qualified language teachers by extending the delivery of primary languages to non-specialist teachers, supported by specialists providing scheme of work, upskilling and contributing to delivery. Finally, the CLIL approach fits the cognitive development - as identified by the Research in Primary Languages (RiPL) project - of primary school pupils who learn implicitly, by being immersed in the language and using it.


## 1 Introduction

From September 2014, the primary Modern Foreign Language (MFL) entitlement made Key Stage $2(\mathrm{KS} 2)^{1}$ statutory programmes of second language (L2) study and attainment targets a legal requirement in English primary schools. The range

[^9]of L2s was extended to include any modern or ancient language, the focus being on "enabling pupils to make substantial progress in one language." (DfE 2013: 2).

In September 2018, the first cohort made the transition to secondary school and the Research in Primary Languages (RiPL) project reviewed the extent to which the statutory requirement had been met, and with which results. A white paper (Holmes \& Myles 2019) identified a number of challenges:

The principal problems in schools relate to time allocation, teacher subject knowledge and language proficiency, limited access to professional development and a lack of shared and agreed understanding of pupil progress at the point of transfer from primary to secondary schools. Given the central importance of subject knowledge to good teaching, the variability of initial teacher training in subject knowledge development is a cause of concern. The current infrequency of Ofsted inspection of primary languages is a further cause of concern. (Holmes \& Myles 2019: 9)

The call to better implement the transition between primary and secondary levels, and to support teacher ${ }^{2}$ training has been echoed in the Policy Briefing on Modern Languages Educational Policy in the UK by Ayres-Bennett \& Carruthers (2019) and Towards a National Languages Strategy: Education and Skills (British Academy et al. 2020), a joint report published by the British Academy, the Arts and Humanities Research Council, the Association of School and College Leaders, the British Council and Universities UK.

In this paper, we will comment on the implementation of the MFL entitlement through the Spanish First Initiative in the East London borough of Hackney (for a general presentation, see Baldwin 2021), with special consideration of its recent Content and Language Integrated Learning (CLIL) developments. We will start with a reminder of present challenges for MFL in England and a brief historical overview of the MFL provision in primary education before presenting the Spanish First Initiative launched in Hackney in 2014. We will then focus on the emerging CLIL developments in Hackney schools and discuss the advantages of a CLIL approach for addressing the challenges around language teaching in primary schools.

[^10]
## 2 The national picture

### 2.1 Current challenges for MFL in England

Anglo-American culture heavily features in Western and world media, thanks to the dominant position of English in enterprise, business, and the creative industries. By contrast, the mainstream portrayal of other languages and cultures remains limited in the UK, propagating "insular or Eurosceptic attitudes" that lead to negative perceptions of MFL (Taylor \& Marsden 2014: 903). This perhaps explains the reluctance in reporting home languages in the census. Indeed, only 90 languages were reported for London in the 2011 Census. By contrast, a survey of 896,700 children in London (Baker \& Eversley 2000) reported over 300 home languages. Shying away from languages has only been exacerbated by Brexit (Adams 2019). First, leaving the European Union and focusing on business with English-speaking countries fosters a devaluation of language skills that is feared will impact the uptake of MFL, in constant regression since 2004, when languages stopped being compulsory post-14. Enrolment in languages examinations at GCSE (General Certificate of Secondary Education taken by 16 year olds) and A-level (advanced levels for 18 year olds) in England has steadily declined overall, despite the rise of Spanish (see Figures 1-2).


Figure 1: Evolution of GCSE uptake for French, German and Spanish in England between 2002 and 2019 (adapted from Churchward 2019: 6)


Figure 2: Evolution of A-level uptake for French, German and Spanish in England between 2002 and 2019 (adapted from Churchward 2019: 18)

These downwards trends have caused the closure of university language departments, while compromising the training of local MFL teachers needed to make up for the diminished supply of EU teachers post-Brexit (Savage 2019). Acceptances onto modern language degrees have decreased by $36 \%$ in the last ten years - from 6,005 in 2011 to 3,830 in 2020, including a $13 \%$ drop last year (Mcquillan 2021). The country is already experiencing a shortage of language teachers:

The rates of state-funded secondary school modern language teachers without a "relevant" post-A Level qualification in their subject, are higher than the average across all subjects (around $34 \%$ compared to $25 \%$ on average) (Long \& Danechi 2021)

Almost $70 \%$ of state schools and $90 \%$ of independent schools have at least one teacher of languages who is a citizen of a European Union Member State (excluding Ireland) (Collen 2020), but restriction of the freedom of movement is likely to affect that external supply of educators, potentially leaving the country unable to meet its requirements for primary languages entitlement. A recent report has shown that schools failed to recruit enough language teachers (only $72 \%$ of posts filled) to support their Ebacc ambitions (Long \& Danechi 2021). Meanwhile, the Language Trends 2021 (Collen 2021: 4) reports that "in $53 \%$ of primary schools in

England, language teaching was discontinued during the first national lockdown from 23 March 2020 to late June 2020". This may be due in part to the lack of in-house linguistic skills and the dependence on peripatetic teachers who were not available during the pandemic.

### 2.2 MFL provision in primary education

Between 1964 and 1974, a large-scale experimental introduction of French in primary schools was attempted (Burstall 1974). The study aimed (i) to investigate the long-term development of pupils' attitudes towards foreign-language learning; (ii) to establish a potential correlation between pupils' levels of achievement in French and their attitudes towards foreign-language learning; (iii) to consider the impact of personal variables (e.g. age, sex, socio-economic status, parental support, contact with France, employment perspectives, etc) on achievement in French and attitude towards language learning; (iv) to consider the effect of teachers' attitudes and expectations on those of their pupils; (v) to establish whether the early introduction of French positively impacted other areas of the curriculum. It concluded that no substantial progress was achieved by children starting French at KS2, although they displayed a more positive attitude towards the language than beginners at KS3. The conclusions of the report were widely debated, given its shortcomings in representing the opinion of all stakeholders and debatable methodological choices (Buckby 1976). Nevertheless, the overwhelmingly "pessimistic" report (Hunt et al. 2005) was considered insufficient to extend MFL to primary schools, despite study flaws and alleged inconsistencies between the conclusions and the evidence. As a result, government support and funding were withdrawn. However, the efforts of lobbyists for languages managed to turn the tide and, in 2013, the educational system formally ensured the teaching of MFL across KS2 (7-11 years) in primary state schools. The national curriculum (NC) states: "Learning a foreign language is a liberation from insularity and provides an opening to other cultures" (DfE 2013, quoted by Zefi 2021: 7).

Implementing the decision entails various challenges including (i) the transition between primary and secondary languages, (ii) the lack of suitably qualified teachers and (iii) the constraints of timetabling in an already overcrowded curriculum. Those problems are being successfully addressed in Hackney schools, and we will now see what makes the "Spanish First Initiative" a good practice case.

## 3 The Spanish First initiative

The "Spanish First" language project was launched in 2013 by Martin Buck, the Hackney Learning Trust's (now Hackney Education) former Head of Secondary Service. He was concerned about developing a closer relationship between local primary and secondary schools in Hackney to ensure an easier transition between levels. The initiative pursued three aims:

1. To implement and promote the teaching of Spanish in all primary and secondary schools in Hackney.
2. To enable pupils to attain high standards in that language.
3. To ensure a coherent and smooth transition from primary to secondary school.

We will discuss in the next few sub-sections how those objectives have been achieved.

### 3.1 Implementation and promotion of Spanish in all Hackney primary and secondary schools

When it became a government requirement to teach a language in primary schools in 2014, Spanish was chosen in Hackney on the grounds of its position as a world language deemed easier to acquire for English-speaking learners at the earliest stages than others (such as French) due to the relative simplicity of its phonology for English speakers. ${ }^{3}$ A steering committee was set up to oversee and implement the project, comprising representatives from primary schools, a secondary school Headteacher, and Hackney Learning Trust languages specialists Bernadette Clinton and Anushka Sonpal. The objective was to get all primary schools in the borough on board with the introduction of Spanish as part of the KS2 curriculum. The project was launched in seven primary schools with the support of a handful of secondary language teachers, one dedicated primary teacher and the Trust language specialists, and benefited from the statutory requirement to teach a foreign language in Key Stage 2 from September 2014. Virtually all primary schools in Hackney (with the exception of two Jewish schools) started teaching some Spanish from this time. As for secondary schools, they progressively joined the initiative, but continue to offer to this day a range of languages

[^11](including French, German, Italian, Mandarin, Arabic, Polish, Portuguese, Turkish, Latin and Modern Hebrew.) ${ }^{4}$ In 2020, 51 out of $58^{5}$ primary schools delivered Spanish to their year 6 pupils.

In Parkwood school, which received the International Spanish School Accreditation in July 2019, all classes from Nursery to Year 6 (Y6) are taught Spanish. Early Years Foundation Stage's (EYFS) and Y1 and Y2 pupils are taught Spanish for 30 minutes a week, Y3 and Y4 for 45 and Y5 and Y6 for 50 minutes.

### 3.2 Pupils' attainment through a wider community initiative

Pupils' attainment in Spanish is supported by a range of actions. First, resources have been developed in support of the initiative. These include schemes of work guiding delivery and transition data to facilitate continuity between primary and secondary teaching. Second, the quality of teaching is ensured by the employment of peripatetic language specialists, the linguistic upskilling of Primary school teachers and continuous professional development for teachers at all levels. Finally, the scheme is supported by external stakeholders including national bodies such as the British Council and the Consejería de Educación (e.g. upskilling of teachers), cultural institutions such as the Cervantes Institute (e.g. bringing a Spanish author to Hackney for a storytelling workshop), and local stakeholders such as the Río Cinema, local Spanish-speaking artists and businesses. The external involvement of these organisations has contributed to making Hackney a Spanish borough, where the language is visible and its learning valued. For instance, some schools have held Spanish Community events such as a Hispanic Week with the contribution of Spanish-speaking families. In addition, parents have been encouraged to join cultural events (e.g. cooking, dancing etc.), and Spanish language classes run by Parkwood Primary school in collaboration with Hackney Adult Education, Hackney Council.

### 3.3 Transition from primary to secondary

The transition from primary to secondary school is achieved through several means. First, data regarding the Spanish language development of each pupil is transferred electronically to their chosen secondary school, which enables language teachers to ensure continuity and avoid the demotivating situation where pupils restart from scratch. The information provided by primary schools includes the length of Spanish study and the level of achievement across Reading,

[^12]Writing, Speaking and Listening. ${ }^{6}$ The inclusion of data for Spanish highlights the improved status of the language in the borough, where it is considered a core subject like English, Mathematics and Science. Second, stronger personal links are established between primary and secondary schools. For instance, continuous professional development brings together teachers from both levels. The exchanges also take place between pupils as young Language Leaders from secondary schools teach primary pupils, while primary pupils from pilot schools have been teaching secondary partners in years 7 and 8.

Evidence from the Spanish First Initiative in Hackney suggests that cooperation between secondary schools and their feeder schools combined with appropriate teachers' continuous professional development has already resulted in an improved uptake of languages at GCSE and A-levels, in stark contrast with the national declining trends. Tables 1 and 2 show the growing uptake in Hackney schools for GCSEs and A-levels in French (the most popular language prior to the Spanish First Initiative) and Spanish. It must be noted that the pupils who have followed the entire Spanish First programme (in Year 3 in 2014) are only starting their GCSEs, so the programme seems to be impactful beyond the direct beneficiaries.

This rise has occurred even though the primary curriculum, designed by Bernadette Clinton in association with primary and secondary teachers in Hackney for the Spanish First Language Initiative, was intentionally not designed around progression towards GCSE examinations. It aims to teach Spanish as "a language rather than a subject". As a result, teachers can be creative and design enjoyable lessons using "useful language", including topics such as cooking and art.

Sue Roberts [former chair of the Spanish First Language Initiative steering group and secondary school representative for Hackney Education] commented that some of the best practice in primary schools includes the use of "a few Spanish phrases" in multiple other subject areas, such as P[hysical] E [ducation], which means that all the staff are learning some Spanish alongside their pupils and acknowledging that Spanish is a positive part of their school's culture. (Spanish first, Baldwin 2021: 10)

For instance, at Parkwood School, all members of staff are involved in the teaching of Spanish in different ways. Teachers and teaching assistants may support the specialist teacher in class, reinforce Spanish with daily routines, support

[^13]the use of Spanish in the lunch hall or run Spanish playground games. This integrated approach can be considered as CLIL, and we will now present it in more detail.

Table 1: Uptake for GCSEs in Hackney schools (Data from Hackney Learning Trust for 2017-2020, and Bernadette Clinton for 2015, 2016 and 2021)

|  | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Spanish | 525 | 653 | 677 | 808 | 1,009 | 1,213 | 1,319 |
| French | 485 | 441 | 347 | 403 | 311 | 301 | 285 |

Table 2: Uptake for A-levels in Hackney schools (Data provided by Hackney Learning Trust for 2017-2020, and by Bernadette Clinton for 2021)

|  | $2017^{a}$ | 2018 | 2019 | 2020 | 2021 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Spanish | 32 | 40 | 33 | 62 | 80 |
| French | 15 | 12 | 10 | 26 | 25 |

[^14]
## 4 The CLIL approach

In this section, we will provide a short description of the CLIL approach, highlight its benefits, and sketch its implementation in Hackney schools.

### 4.1 What is CLIL?

CLIL stands for Content (or Curriculum) and Language Integrated Learning. This model for the teaching of languages was developed in Europe in the mid-1980s, inspired by the Canadian immersion model in which disciplines are taught through the medium of the target language. The approach takes several forms: "There is neither one CLIL approach nor one theory of CLIL" (Coyle 2008: 101), but it relies on what Coyle (2006) has called the 4Cs framework illustrated below (see Figure 3).

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Figure 3: The CLIL 4Cs Framework (Coyle 2006, in Coyle 2007: 551)

Content refers to the discipline (history, biology...) taught in class. Communication of the discipline is conveyed in another language creating meaning on the content, which needs to be interpreted through Cognition. For instance, language supports understanding, critical analysis or memorising of the content. Those processes take place within a Culture that includes ways of interacting socially (e.g. the target culture conventions for personal introductions), expected learning behaviours (e.g. classroom conventions) and discipline-based expectations (e.g. the typical structure of a science experiment report).

### 4.2 Benefits of a CLIL approach

Research has shown that a CLIL approach entails enhanced learner engagement attributable to the authentic contents covered (Coyle et al. 2010, Mehisto et al. 2008). As a result, learners in a CLIL context seem to achieve greater proficiency in the target language (Wesche 2002) and, perhaps more surprisingly, perform similarly or better in their first language (Alberta Ministry of Education 2010, Baker 2006) without any loss in the acquisition of contents (Dalton-Puffer 2008). In addition, CLIL learners display a superior intercultural competence and develop more positive attitudes towards other cultures (Lasagabaster \& Sierra 2009; Rodríguez \& Puyal 2012; Sudhoff 2010).

### 4.3 CLIL in the Spanish First Language Initiative

The statutory requirement to teach a foreign language at both Key Stages 2 and 3 states the learning aims but it does not lay out how those aims should be achieved or how much time should be dedicated to achieving them (DfE 2013). We will thus contend that Content and Language Integrated Learning - the teaching of
contents through the means of an additional language (e.g. geography through French, physical education [PE] through German ...) - may offer a practical effective solution to the language deficit in primary schools. Indeed, the potential delivery of additional language input by non-language specialists helps counteract the dearth of language teachers in English schools. In addition, the exposure to another language during periods dedicated to other subjects contributes to addressing competition - often detrimental to languages - in a crowded curriculum.

The CLIL approach is an exciting development of the overall Spanish First project, and it has been piloted in a few Hackney schools. The CLIL element was introduced in Hackney as the project developed in association with the Spanish Department of Education at the Spanish Embassy (Consejería de Educación), which seeks to promote the learning of the Spanish language internationally. To promote the use of Spanish in authentic communication, teachers started conducting Art lessons in Spanish in two primary schools and one secondary school. Art was not considered to be very taxing with respect to contents, especially at primary level where it is an overwhelmingly practical subject, so the language needed to run the classes was expected to remain limited. For instance, at Parkwood Primary school, CLIL Art is taught for one hour a week in all year groups from Y1 to Y6. An extension of the scheme to ten more schools was planned in the school year 20/21, but the plans had to be put on hold due to COVID-19 restrictions. Some schools have adopted an CLIL approach in other subjects too, such as Mathematics. Spanish phrases have also been piloted to give instructions during PE lessons in Reception and Year 1 at Parkwood school, and there are plans to extend the practice to Nursery years from 2021-22. Pupils are also encouraged to use their knowledge outside the classroom. This has translated into school trips to Spain for Year 5 pupils, organising fundraising events related to Spanish, teaching Spanish to Y7 and Y8 pupils in link secondary schools, helping class teachers with daily Spanish revision within school or using Spanish at lunchtime to earn house points (pupils have posters to help them talk in Spanish at lunch, e.g. to give opinions about the food or ask for things like bread or water), chatting to locals in Spain during school visits. Importantly, integrated learning of content and language proves an enjoyable experience, in stark contrast to the demotivating experience of traditional language teaching, as illustrated by the following pupil testimonies:

I like learning Spanish because it is fun and easy language to learn. When we do Spanish Art, we get to use our Spanish skills to ask for things we need. If I ever go to a Spanish speaking country, I should be able to understand what they are saying. Doing Spanish on its own is fun but doing Art as well
makes it even more fun. We use our Art skills to help our Spanish and our Spanish skills to help our Art. I love doing Spanish Art. It's by far one of my favourite subjects! (Year 6 pupil).

Spanish Art is very enjoyable because I love Art and I love Spanish! We have to say what we need in Spanish. One example is: necesitamos papel, acuarelas y pincel. This has also improved my Spanish skills because now I know how to describe what I need easily. Without help! In Spanish Art we make art based on our topic in English. I find this very interesting because we are learning about the Vikings and in Spanish Art we are creating shield patterns. In conclusion I feel Spanish Art is important for all ages! (Year 6 pupil).

In addition, Spanish learners perceive the social importance of language learning:
I love being taught Spanish because it will help me in the future. If I went to Spain I would be able to communicate with others easily. Our Spanish lessons are very fun and interactive because we learn Spanish through games and songs. Our Spanish work is cross-curricular so, if we are learning about the Vikings in English, that means we would make stories and comic strips about the Vikings in Spanish. In conclusion, I feel Spanish is a very exciting language to learn. (Year 6 pupil).

Schools in Hackney thus teach Spanish as a life skill rather than a subject, and this is perceived as beneficial to the whole learning experience:

As the Chair of Governors at Parkwood, I have seen the curriculum develop over the past years. Spanish is now an integral part of how we learn at Parkwood, and this is further underpinned by its constant use within our creative subjects. The Spanish lessons integrate the wider curriculum topics and help drive the creative programme. We observe a variety of lessons across the years and topics. It is always great to see the children learn in Spanish. The value for our children through their whole education (not just primary) is critical. They are not just learning a language in a classroom environment but are using Spanish as an integral part of their learning and education. (Karen Willey, Chair of Governors at Parkwood Primary School).

Martin Buck, former Head of Secondary Service for Hackney Learning Trust, sees CLIL as a way of "culturally as well as linguistically broadening a more diverse approach to language teaching" which also seems to improve achievement throughout the curriculum as evidenced by Woodfield's (2021) experience at KS3.

Therefore, CLIL could provide an effective framework for the redefinition of language learning in England's schools, and we will discuss practical ways through which CLIL could help solve the language deficit in UK primary schools and beyond.

## 5 How do you solve a problem like language learning in England?

Since the turn of the century, regular calls have been issued by cultural and political institutions (e.g. The British Academy or the All Party Parliamentary Group for Languages) to overturn the trends for languages in the country. They have also suggested ways of remedying the current situation. In addition, recent concrete initiatives have tried to reverse the decline of language learning in England. While valuable, they fail to address the specific needs of primary languages for which CLIL constitutes a much more relevant approach.

### 5.1 Current attempts

In December 2017, the Department for Education (DfE) announced the creation of MFL hubs aiming "to improve access to high quality modern foreign languages subject teaching, particularly for disadvantaged pupils, drawing on the findings of the Bauckham review ${ }^{7}$ - building expert hubs to share best practice, targeted in disadvantaged areas." (https://ncelp.org/about/background/). In Spring 2018, 9 schools, each leading a hub made of 5 schools, were identified. A National Centre of excellence for Language Pedagogy (NCELP) hosted by the University of York was launched in December 2018 and has been producing freely available teaching materials ever since. As valuable as they are, those resources present two major shortcomings for supporting primary languages. First, the proportion of materials targeted at primary ages is limited. At the end of July 2021, only $3.44 \%$ of the published resources were aimed at primary school pupils (limited to Year 3 to 6 ), while the bulk ( $95.51 \%$ ) targeted at KS3 pupils (Years 6 to 9) (see Table 3).

A second limitation of the materials resides in their strong grammatical and metalinguistic focus, which reduces their accessibility to non-language specialists who may have to deliver primary languages.

[^15]Table 3: Distribution of NCELP teaching resources (accessed 27/07/21)

| Target age range | Published resources |
| :---: | ---: |
| $11-12$ (Y7) | 660 |
| $12-13$ (Y8) | 199 |
| $13-14$ (Y9) | 112 |
| $10-11$ (Y6) | 29 |
| $9-10$ (Y5) | 17 |
| $7-8$ (Y3) | 7 |
| $8-9$ (Y4) | 6 |
| $14-15$ (Y10) | 6 |
| $15-16$ (Y11) | 6 |
| $16-17$ (Y12) | 3 |
| $17-18$ (Y13) | 2 |

Another governmental initiative is the consultation on new GCSE contents carried out in Spring 2021. The proposal, revolving around a list of common vocabulary and the removal of set topics such as families, holidays or hobbies deemed middle-class and alienating for lower socio-economic backgrounds, was widely criticised. The main issues included the failure to acknowledge the pitfalls of identifying most frequent words and of letting word lists take over topics. Indeed, the most frequently used words depend on the medium of communication and the type of corpora taken as reference; they are also susceptible to change (e.g. the vocabulary related to COVID-19 was unknown prior to 2020), which could compromise the sustainability of teaching materials. In addition, topics currently covered in the curriculum are familiar to large proportions of the pupil population, and it may be challenging to identify meaningful and motivating topics to convey the programme.

### 5.2 A CLIL approach to primary languages?

Holmes \& Myles's (2019: 9) white paper highlighted several challenges to the successful implementation of MFL in primary schools. These included limited time allocation, the lack of qualified teachers, and the transition from primary to secondary. We would argue that an inadequate teaching approach, leading to a lack of motivation and of support, also hinders it. We will contend in the remainder of this paper that a CLIL approach could greatly contribute to solving the issues raised by the MFL entitlement

### 5.2.1 Time allocation

Holmes \& Myles's (2019) white paper noted the restricted time allocation to languages in the curriculum, ranging from 30 minutes ${ }^{8}$ to 1 hour a week. In addition to this limited provision, language classes were also subject to cancellation, particularly in Year 6 due to preparations for the SATS (Standard Assessment Tests):

Due to emphasis on SATS year 6 tend to have less language teaching however after SATS the intention is to complete more. Some teachers aren't confident in teaching MFL and give it less priority than other subjects.

Sometimes if the curriculum demands are high, or there is a testing week or other events such as Harvest, language teaching is often dropped for that week. (quotes from Collen 2021: 9)

The COVID-19 crisis has further highlighted the fragility of school language delivery as a recent British Council survey reports that more than half of UK primary schools, ${ }^{9}$ and $40 \%$ of secondary schools did not teach languages during the first lockdown (Bawden 2021).

Moreover, some pupil groups are removed from language teaching for educational support. Those include Special Education Needs pupils and L2 speakers of English (English as an additional language or EAL pupils) although the MFL classes were likely to benefit them, particularly the latest, given their experience in functioning in another language:

There is research evidence that EAL children are at an advantage when it comes to foreign language learning outcomes, and that the language classroom might be the only context in which they are not at a communicative disadvantage when compared to their monolingual peers. Anecdotal evidence suggests, however, that EAL learners are often withdrawn from the language class to receive additional English-language support. This seems to be misguided, when language lessons can play an important role in enhancing EAL children's metalinguistic understanding and give them confidence. (Holmes \& Myles 2019: 11-12)

[^16]By integrating MFL in other parts of the curriculum, schools increase exposure to languages and fill the gap with other countries while widening participation in languages by involving pupils who might usually be removed from language classes for remedial support.

In Parkwood school, Spanish receives the full support of senior management and Headteacher Paul Thomas: Language classes are not subject to cancellation, which vitally contributes to the success of the initiative.

### 5.2.2 Teacher subject knowledge and language proficiency

Another obstacle identified by the white paper was the shortage of suitably qualified language teachers. The problem results from a variety of circumstances. First, a lack of governmental support to MFL teaching has exacerbated the traditional resistance by English speakers towards taking up foreign languages. This attitude has been reinforced by the reluctance of schools to enrol anybody but their strongest pupils on language GCSEs and A-Levels as those "harder" topics generating comparatively lower marks were feared to impact school rankings negatively. Even if the primary MFL entitlement attempts to reverse the trend, it encounters a number of conjectural obstacles. Since 1992, when the Treaty of Maastricht allowed freedom of movement within the European Union for its citizens, UK schools have become over-reliant on language teachers trained abroad or on EU residents who trained as language teachers in the UK. Post-Brexit, this supply is reducing, and alternative ways of staffing schools need to be found. However, language learning post-14 has steadily declined since 2004 entailing a significant reduction in the numbers of pupils enrolling for language degrees. Moreover, the dual language degrees traditionally pursued by would-be teachers have declined because of the diminution of university applicants with A-Levels in two languages (a result both of the reduced offering in most schools and the reduction of A-levels from 4 to 3 in 2016) and because of the development of combined honours degrees (e.g. business with a language) deemed more conducive to employability. These combined trends make England unable to implement its modest language ambitions.

CLIL relies on carefully scaffolded language, for instance with pictures. It also focuses on content-obligatory language (i.e. the vocabulary, grammatical structures and functional language for specific subjects) and on subject-specific language (e.g. imperative forms in instructions). These features allow for a more predictable use of language, which is likely to enhance the confidence of teachers with a limited command of it.

### 5.2.3 Adequate teaching approach

Holmes \& Myles's (2019) white paper also highlights that, during primary education, learning progressively shifts from implicit to explicit:

Input plays a particularly important role in middle childhood (from ages $6 / 7$ to $11 / 12$ ). During much of this phase, children learn implicitly, by being immersed in the language and using it. However, for implicit learning to take place, rich and plentiful input, as well as opportunities to use the language meaningfully, are necessary. The balance between implicit learning and more explicit forms of learning starts to shift gradually during middle childhood. (Holmes \& Myles 2019: 10)

Given that CLIL provides a meaningful learning experience with immersion in the target language and culture, it is a particularly suitable way of introducing children to languages and of fostering a positive response to MFL, thereby preserving motivation that is supported by meaningful scaffolded communication:

KS2 children are generally highly motivated when starting to learn a language, and are primarily interested in learning languages as a means of face-to-face communication, e.g. for holidays and travel, particularly enjoying encounters with language assistants, link schools abroad etc. (Holmes \& Myles 2019: 11)

## 6 How could CLIL be supported?

In that context, a CLIL approach could help address the deficit in primary teachers' linguistic knowledge and their limited language proficiency in the L2. By adopting a CLIL approach, non-specialist language teachers could benefit from a confidence boost as they deliver contents they are familiar with, rather than metalinguistic knowledge, and use targeted and limited language resources that can be acquired through continuous professional development (CPD) or twinteaching with language specialists in the short-term. This approach has proved successful in overcoming language prejudice and upskilling teachers in Hackney, even if the CLIL sessions are delivered by language specialists. ${ }^{10}$ Extra benefits include a closer cooperation between primary teachers and secondary language specialists that enhances pupils' progression and maintains the enthusiasm for

[^17]Spanish awoken at primary level. In parallel, projects led by cultural associations ${ }^{11}$ or universities through pan-European projects ${ }^{12}$ as well as the actions by the Learning through Languages UK consortium offer teachers ready-to-use materials and training in CLIL methodology. However, such local initiatives remain fragile without governmental endorsement and, longer-term, training in CLIL principles and language learning should become part of initial teaching training to ensure the national recovery of languages. A recent report (British Academy et al. 2020) commissioned by the British Academy, the Arts and Humanities Research Council, the Association of School and College Leaders, the British Council and Universities UK recommends the following:

Universities and colleges, through their Institution-Wide Language Programmes, should facilitate language learning for primary education trainees, to ensure that there is an opportunity for all primary teachers to attain at least the equivalent of Common European Framework of Reference for Languages (CEFR) A1/A2 level in a language.
(British Academy et al. 2020: 16)
Partnerships with schools would enhance the trainees' confidence. Indeed, Parkwood school hosts PGCE students from two London universities. They are all encouraged to observe Spanish lessons and teach Spanish or other language lessons during which they are mentored and advised by a language specialist. In 2020-2021, 6 PGCE students took up the challenge and taught Spanish, Japanese and Korean lessons. Two of them taught CLIL art lessons. This proved a great experience for the trainee teachers and the primary pupils. Teaching MFL during a placement should thus become an expectation rather than a choice, as even those who did not speak other languages found the experience very positive.

Finally, support from individual schools' management is essential to facilitate teachers' upskilling as it allows freeing up time and emphasises the importance of the MFL input. This has been crucial to the success of the Spanish First initiative at Hackney, and particularly at Parkwood, its flagship school, but also in the schools on which Woodfield (2021) reports.

## 7 Conclusion

In this paper, we have provided a brief overview of the Primary Languages landscape in England and highlighted the issues it is facing. We have presented the

[^18]best practice case of Hackney Education with special attention to the recent CLIL developments. We have then argued that a CLIL approach had the potential of addressing the challenges of implementing the national MFL entitlement at primary level by reducing the timetabling constraints, expanding the teacher pool, and adapting to children's cognitive development. While language teachers with high MFL proficiency have consistently been identified as conducive to success in MFL, the current staff deficit exacerbated by the post-Brexit context prevents all schools in England from benefiting from the support of such highly qualified professionals. Schools with a lower socio-economic profile are disproportionately affected by the situation, which reinforces the elitism traditionally attached to languages in England.

We have argued that the adoption of a CLIL approach could help address the issue by extending the delivery of languages in schools to non-specialist teachers, supported by specialists providing scheme of work, upskilling and contributing to delivery. In addition, the CLIL approach fits the cognitive development of primary school pupils as identified by research, and makes children click for languages.

Yet, implementing CLIL is not easy. It takes time for specialist and language teachers to plan and develop lessons. It takes commitment from a whole school and a whole community to uphold multilingualism. Above all, it takes support from school leadership to make the time for teachers to collaborate and the place for language skills to develop within the curriculum. Therefore, we hope that decision makers at the highest level will consider the potential benefits of CLIL for language recovery in the country, especially when initiatives such as Spanish First show that an integrated approach succeeds in enthusing youngsters for languages, which traditional methods have failed to achieve.

## Appendix A 2020-2021 post-COVID-19 recovery curriculum transfer form

Hackney Year 6 Spanish Transition Document 2021. ${ }^{13}$ Highlight the items in the left-hand column which you have covered well in KS2 and email to bernadette.clinton@hackney.gov.uk by 28 May 2021

Name of primary school

[^19]
## Knowledge \& grammatical terminology Examples only

GRAMMAR
Gender Un perro is a masculine noun
Awareness of gender as a concept and Una tortuga is a feminine noun use of terminology masculine \& feminine

Common letter patterns which show Words ending in -o masculine gender (although not always the case) Words ending in - $a$ feminine

Nouns \& Determiners
Understand that a determiner introduces a noun, and that it can be an indefinite article, a definite article or a numeral

Rules for capitalisation

## Plurals

An ability to recognise \& form nouns in the plural

Indefinite article
Un gato, una araña, unos gatos, unas arañas
Definite article
El gato, la serpiente, los perros, las arañas Numeral
Un gato, una serpiente, tres perros, cinco serpientes

No capitalisation for days/months - unless they start a sentence
Plurals of nouns ending in a vowel just add -s
Una casa - dos casas; un gato - tres gatos
Where a noun ends in a consonant add -es
El árbol - los árboles; una televisión unas televisiones

| Knowledge \& grammatical terminology | Examples only |
| :--- | :--- |
| Agreement | Noun, determiner \& adjective |
| Awareness of agreement as a concept, i.e. | La regla roja y pequeña |
| the matching of words by number \& gen- | Los zapatos negros <br> der |
|  | Subject \& verb |
|  | The "I" person of the verb in the present |
| tense ends in -o |  |


| Knowledge \& grammatical terminology | Examples only |
| :---: | :---: |
| High frequency irregular verbs | Jugar - juego |
| Know some in the "I" form | Venir - vengo |
|  | Poder - puedo |
|  | Hacer - hago |
|  | Dormir - duermo |
| Core structures | Hay |
| Be able to use these in sentences | No hay |
| Opinion phrases | Me gusta(n), No me gusta(n), Me encanta(n), Odio, Detesto Prefiero |
| Opinion adjectives | Excelente, fantástico, genial, guay, interesante, fatal, fenomenal, mal, regular, aburrido, pequeño, grande |
| Conjunctions | Y, pero, con, porque, también, pues, entonces |
| Knowledge \& grammatical terminology | Examples only |
| Intensifiers | Muy, bastante, más grande, más pequeño, demasiado |
| Prepositions | En, sobre, debajo de, enfrente de, al lado de, a la derecha, a la izquierda, delante, detrás |
| PHONOLOGY |  |
| Key phonemes | Vowel sounds, $+\mathrm{j}, \mathrm{ll}, \mathrm{v}, \mathrm{rr}, \mathrm{ge} / \mathrm{gi}$, ga/go, $q u=k, c e / c i, c a / c o, z$, silent $h$ |
| Accents - be aware when used | Bufón, árbol, fantástico, fantasía |
| VOCABULARY |  |
| Core phrases | Greetings \& polite phrases |
| Teacher classroom instructions | Escucha(d), repeti(d), mira(d), siéntate, sentáos, de pie, levanta(d), levanta(d) la mano, silencio, abre(d) el libro, coge(d) el lápiz |


| Knowledge \& grammatical terminology | Examples only |
| :---: | :---: |
| Question words | ¿cómo?, ¿qué?, ¿cuántos?, ¿cuándo?, ¿cuál?, ¿quién?, ¿dónde? ¿cómo te llamas?, ¿cómo estás?, ¿qué tal?, ¿qué fecha es hoy?, ¿cuántos años tienes?, ¿cuándo es tu cumpleaños?, ¿cuál es tu color favorito?, ¿quién es la mujer?, ¿dónde está mi cuaderno?, ¿qué haces?, ¿qué hora es? |
| Basic vocabulary |  |
| Days of the week \& Months |  |
| Colours |  |
| Numbers $0-31$ \& dates \& Time |  |
| Family members |  |
| Animals |  |
| Weather and seasons |  |
| Geographical features |  |
| Modes of transport |  |
| Sports and hobbies |  |
| Clothing |  |
| Parts of the body |  |
| Food |  |
| The planets |  |
| Places in town |  |
| Knowledge about the Spanish-speaking world \& intercultural understanding | The geography of Spain - main cities Where in the world Spanish is spoken Spain \& the Hispanic World: <br> Important festivals \& traditions <br> Art \& artists <br> Music \& dance <br> Food \& menus |
| Raúl el súper cocinero \& cuaderno | List the chapters you have read with your pupils |
| Anything else you want to add? |  |

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## Chapter 7

# Instructional practices in English-Chinese and English-Spanish kindergarten dual language immersion classrooms 

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#### Abstract

Dual language immersion (DLI) programs in the United States have been rapidly increasing in recent years. However, very little research to date has investigated what DLI instruction looks like and what opportunities for learning are available in DLI classrooms. The current study contributes to understanding in these areas by investigating teachers' instructional practices in English-Chinese and EnglishSpanish kindergarten DLI classrooms. Video, audio, and observation data were collected from eight kindergarten DLI classrooms using a 50/50 model in which $50 \%$ of instruction was delivered in English and $50 \%$ in Chinese or Spanish. Results indicated important differences and similarities for (i) teachers' language use in the different classrooms and (ii) teachers' instructional practices in the different languages. Teachers' instructional practices, the availability and type of instructional input, and their impact on opportunities for learning are discussed as ways to inform decisions about subject content teaching and language development in DLI classrooms.


## 1 Introduction

Exposure to the target language is understood to play an essential role in explaining the rates and routes of second language (L2) learning, a claim central to many theories of second language acquisition (for reviews, see Gass et al. 2021, Mitchell
et al. 2019). In instructed contexts, a critical source of exposure to the target language includes teachers' language use, especially in English-dominant national contexts where access to languages other than English can be difficult (Lanvers et al. 2021, Mitchell \& Myles 2019, Porter et al. 2020). To date, research has shown that exposure to the target language in foreign language (FL) classrooms can be variable and, in some cases, infrequent (Duff \& Polio 1990, Wilkerson 2008). Studies documenting the instructional input indicate that experience, L2 proficiency, and pedagogical context can play important roles in shaping how teachers use the target language (Collins et al. 2012, Huensch 2019, Macaro 2001).

In the U.S., some teaching organisations have expressed concern about the quantity of target language use in FL classrooms. The American Council on the Teaching of Foreign Languages (ACTFL), for instance, considers it to be is insufficient (ACTFL 2021; see also VanPatten 2014). As a result, ACTFL has for a long time now recommended that "learning take place through the target language for $90 \%$ or more of classroom time [...] The target is to provide immersion in the target language unless there is a specific reason to NOT use the target language" (ACTFL 2021). Even though these "guiding principles for language learning" likely constitute an important step in supporting language teaching in the U.S., especially given that no federal policy currently exists, the recommended practice of more than $90 \%$ target language use is only loosely based on research evidence. This is because this advice is not based on research that has investigated relationships between the amounts and/or functions of language use in classrooms and L2 learning outcomes. In addition, teachers are encouraged to use the target language "unless there is a specific reason" not to do so. However, it remains unclear what such a reason would look like.

One challenge to making evidence-based recommendations about language use in FL classroom contexts, however, is that (i) not all FL programs share the same aims and objectives and (ii) very little research has actually examined the instructional input in FL classrooms (Collins et al. 2012, Huensch 2019, Macaro 2001). While some research has calculated the amount of L2 use compared to L1 use in classrooms (Duff \& Polio 1990), for example, very little is known about how FL teachers use the target language in the classroom (i.e., what are the purposes of the instructional input?). Investigating this question in a variety of classroom types (e.g., intensive, dual language, and "traditional" language learning contexts) is critically needed in order to develop evidence-based recommendations for teachers and administrators in FL programs.

In the current study, we addressed these gaps in understanding about teachers' use of the target language in an understudied pedagogical context, dual language immersion (DLI) classrooms. Given that this is a growing pedagogical context
in the U.S. (see Commission on Language Learning 2017, Valdes 1997), our aim was to better understand what DLI instruction looks like and what opportunities for learning are present in DLI classrooms. Such findings are needed to develop appropriate, evidence-based recommendations that are appropriate for FL teachers in DLI classrooms. Although some research has focused on student learning outcomes in these contexts (e.g., Burkhauser et al. 2016, Fortune \& Tedick 2015), much less is known about the instructional input and pedagogical activities available in DLI classrooms.

## 2 Language use in classroom contexts

Documenting the availability of target language input in FL classrooms is important for understanding the potential for L2 learning in instructed settings (Collins et al. 2012, Duff \& Polio 1990, Huensch 2019). However, very few studies have actually investigated what the instructional input in FL learning contexts looks like, especially when compared to studies of L2 learning outcomes, for example. While this is particularly the case for classrooms in DLI programs (Jia 2017, Li et al. 2016), a small body of research has provided critical insights into questions about the availability of target language input in FL classrooms.

In Duff \& Polio (1990), for example, target and non-target language use in thirteen FL classrooms, including both commonly taught (e.g., French) and less commonly taught languages (e.g., Slavic languages), was assessed by audio recording the classroom content and conducting observations. Group results that averaged language use across the thirteen classes indicated that target language use represented approximately $68 \%$ of the classroom input. However, considerable variation in the amount of target language use was found across the different classes, ranging from $10 \%$ to $100 \%$. Even though the authors expressed surprise that "over half of the teachers observed here used the L2 less than ninety percent of time" (ibid., p. 162), we should be careful to note that these results reflect "the amount of English and the amount of [the target language] spoken by the teacher and the students" (ibid., p. 156). That is, then, these results combine student and teacher usage into a single analysis and also ignore other types of target language input in the classroom (e.g., textbook materials, videos, audio recordings). Also, the authors do not make a case for why $90 \%$ should be the goal at which to evaluate language use in classroom contexts. Even though quantity of target language input is important, it is arguably just as important to understand how the L2 was used (e.g., for classroom procedures, explanations, group discussions).

In sum, while Duff and Polio's account provides a useful starting point for thinking about language use in FL classrooms, which likely acted as a catalyst
for recommendations such as ACTFL's $90 \%$ or more target language use, more research is needed to contextualise these findings. That is, in addition to documenting the quantities of language use in FL contexts, research is needed that seeks to document how teachers use the target language. In the remainder of this section, we review studies that have examined the functions of language use in FL classrooms to better understand how teachers use the target language.

In one such study, Collins et al. (2012) investigated the functions of teachers' language use in an intensive English elementary school in Canada. Data were collected from three sixth grade classes (i.e., students aged 11-12 years old) in areas outside Montreal, in which students had little to no contact with English outside of the classroom. Video and audio recordings resulted in an instructional corpus of approximately 40 hours. Recordings were transcribed to examine the functions of teachers' language use in the classrooms. The teachers were "native or highly proficient speakers of English" (ibid., p. 70). In order to understand how teachers used the target language in the classroom, subsets of the instructional corpus were examined to understand the range of purposes the teacher input served, which "yielded a number of precise functions such as modeling a tongue twister, preparing and monitoring an activity, explaining specific aspects of language (grammar, vocabulary, pronunciation, etc.), reading aloud, and so on" (ibid., p. 76). These functions of the teacher input were then grouped into five broad categories for understanding the functions of teacher talk in this instructional context: classroom procedures, language related episodes, text-based input, text-related discussion, and personal anecdotes.

First, the most frequent function of the instructional input was for classroom procedures, accounting for $75 \%$ of all teacher talk. Classroom procedures included teacher talk that organised classroom activities, routines, and student behavior. In one example, Collins et al. (2012: 76) show the teacher interrupting an activity to provide further guidance to students: "okay guys, can I have your attention a moment? The papers, the scrap paper that you're using is just for you to write some ideas, to invent the name of your restaurant and to write, you know [...]".

The second most frequent function of teachers' language use included lan-guage-related episodes, accounting for $17 \%$ of the aural input in the classrooms. This is instructional input that focused on language, such as grammar, pronunciation, and vocabulary. For example: "Okay, so here it's not he needs a glue. He needs some glue because glue is like liquid and you can't count. You see? That's why you put some glue. You understand?" (ibid., p. 77).

Although the data were also coded for text-based input for text read by the teacher, discussion of text-based input, and personal anecdotes were all relatively
infrequent in the instructional input (less then $10 \%$ for all three categories). For example, personal anecdotes, when teachers discussed or shared stories or experiences, accounted for $1 \%$ of teacher talk. One example of this involved the teacher telling a story related to a classroom discussion of the idiom "break a leg":
[my husband] was playing in a tennis tournament and he was known to jump over the net [...] instead of going on the other side, around-he would jump over the net, okay? So before the tournament I told him, I said "break a leg" [...] So, of course, he jumped over the net and what do you think happened?
(Collins et al. 2012: 78)
Taken together, Collins et al.'s (2012) results indicate that the majority of teacher talk in these intensive English elementary school classes in Canada was for classroom procedures.

A useful contextualisation for these findings can be found in Huensch's (2019) study of teacher talk in university-level FL classrooms in the U.S. In this study, classroom data were collected from graduate teaching assistants of French and Spanish. Audio recordings resulted in a classroom corpus of approximately 22.5 hours. Usefully for purposes of the comparison with Collins et al. (2012), both studies investigated the functions of language use by analysing the corpus using the same coding procedures. At the same time, it is important to note that the students in these classrooms were quite different (11-12 years olds in Collins et al. 2012, but undergraduate students in Huensch 2019).

First, in line with Collins et al. (2012), Huensch (2019) reported that classroom procedures accounted for the most frequent type of instructional input in the FL classes, at $37 \%$, followed by language related episodes at $28 \%$. Although these proportions are lower than that reported by Collins et al. (2012), they are likely reflective of the different student populations, especially given that the younger students studied by Collins et al. (2012) were aged 11-12 years. In addition, Huen$\operatorname{sch}(2019)$ reported some variation across the classes in terms of the proportion of instructional input dedicated to classroom procedures. For example, even though the average amount of teacher talk dedicated to classroom procedures was $37 \%$, these proportions ranged from $27 \%$ to $61 \%$ across the different classes. Similarly, in some classrooms, the proportion of language-related episodes that focused on grammar ranged from $5 \%$ to $46 \%$. In line with Collins et al. (2012), personal anecdotes represented a very small proportion of the teacher talk ( $2 \%$ ).

Taken together, Huensch's (2019) findings indicate two important trends: (i) the instructional input across multiple FL classes was not the same and (ii) classroom procedures represented a frequent function of the instructional input (a
finding also reported by Collins et al. 2012). These results are important to consider going forward, especially since one argument for aiming for $90 \%$ or more target language use in FL classrooms is to provide rich and varied exposure to the target language (see ACTFL 2021). If the most frequent function of teacher talk is to organise classroom activities and student behavior, teacher talk might not be the richest source of language input to foster L2 learning.

## 3 Teachers' language use in dual language contexts

Turning now to studies of language use in DLI classrooms, although such accounts are rare compared to accounts in FL contexts, two studies have provided rich accounts. For example, Li et al. (2016) reported on a large-scale study of the implementation of DLI across a large, urban school district in the state of Utah in the Western U.S. Classroom observations were used to study teaching practices and language use in DLI classrooms. Even though this approach is different from the previous studies discussed in this chapter given that audio/video data were not collected, this approach provides a broad account of teachers' language use in this relatively under-researched context, which is an insightful approach given that very little is known about what DLI instruction looks like in US contexts. The observation protocols included a range of instructional practices (e.g., "lesson objectives clearly defined, displayed, and reviewed with students") that were rated using a 5-point scale: $4=$ completely evident, $3=$ mostly evident, $2=$ somewhat evident, $1=$ slightly evident, $0=$ not at all evident.

In total, 56 teachers from 18 schools were observed for one class period from kindergarten through to the 12th grade (students aged 5 to 18 years old). The languages from those dual language programs included English, Russian, Spanish, Japanese, and Mandarin.

Overall, the classroom observations indicated that lesson plans were clearly defined, displayed, and reviewed with students. The classroom input was "made comprehensible" with explanations and activities (e.g., use of visuals, gestures, modeling). A variety of different learning strategies were used that included frequent opportunities for interaction. Just over half of the teachers were L1 speakers of the language they taught ( $57 \%$ ). In addition, the instructional practices did not appear to vary systematically across the languages. It was also found that the target language was used in very high proportions. Furthermore, the majority of teachers used the target language $100 \%$ of the time. It should be noted that a key focus of this study was to provide a broad understanding of what DLI instruction looks like, achieved by studying a large number of teachers, in a variety of different schools, with students of varying language abilities. Clearly, fine-grained
accounts are also needed to understand how these different pedagogical activities were implemented and to what end.

Similar findings were reported in Jia's (2017) study of two Chinese-English dual language classrooms in a southwestern city of the U.S. In line with Li et al. (2016), data about teaching practices and language use came from observations, but this time of a small number of classrooms. These classroom observations were described as follows: "I wrote down what was orally produced by students as well as teachers, recorded (by hand) activities the class was engaged in, types of written exercises carried out in class, etc" (ibid., p. 49). Overall, Jia (2017) found that a focus on language explanations, as in the "language related episodes" from Collins et al. (2012), for example, constituted a very small part of the classroom activity. Instead, teachers encouraged output activities. Indeed, interviews with teachers indicated a strong preference for a communicative approach that encouraged spontaneous output from the learners. In addition, no instances of using English to discuss grammar were found. That said, English was present in the classroom. In each observation, the instructor used Chinese $75 \%$ or more of the time. When English was used by the teacher, it "was limited to one word expressions or short sentence explanations" (ibid., p. 73).

Taken together, this review of teachers' language use in different FL contexts indicates some differences but also some important similarities among the classes. A difficulty drawing comparisons among the different pedagogical contexts is that different methodologies and ways of accounting for instructional input were used. While such an approach is of course complementary, as seen in the review of DLI classrooms, the different methodologies do not make it possible to draw meaningful comparisons across contexts. For example, observations were the primary data source used in the studies of teaching in DLI classrooms, but classroom input was audio/video recorded, transcribed, and then analysed in the studies of Collins et al. (2012) and Huensch (2019). Not only do these methodological differences make comparisons across classrooms difficult, but the exclusive use of observation methodologies limits our understanding of the instructional input in the DLI contexts. Complementing these observations with some type of video/ audio accounts, even if just partial accounts, would provide richer insights into the instructional input in this context. A further consequence of these methodological decisions is that the studies of Collins et al. (2012) and Huensch (2019) provide richer insights into the functions of teacher talk in those pedagogical contexts. In contrast, the observation findings from the dual language contexts seem to indicate a strong focus on promoting target language use, but it is not always clear how that was achieved. For example, it seems likely that teachers may have developed specific strategies to use in the target language and to encourage
target language use with the students. Some account of these strategies would be useful for understanding what DLI teacher talk looks like. To address these limitations in our understanding of the pedagogical activities and the instructional input in DLI classes, research is needed that more comprehensively documents what DLI instruction looks like and what opportunities for learning are present in DLI classrooms using a variety of methodologies. In so doing, such research can make a critical contribution to developing evidence-based recommendations for language teaching in these relatively newer and under-researched pedagogical contexts.

## 4 Current study

This study addressed the aforementioned gaps in previous research by examining the instructional input and different pedagogical activities used by teachers in Chinese, English, and Spanish DLI classrooms and the extent to which these differed as a function of the target language of the DLI classes. One particular motivation for this study is that compared to our understanding of instruction in (post-secondary) FL contexts, relatively little is known about opportunities for language learning in DLI classrooms.

In the current study, two research questions were investigated. Following Mitchell \& Myles (2019) as well as the data collections procedures and conventions established by the French Learner Language Oral Corpora project (see Myles \& Mitchell 2021), Chinese, English, and Spanish kindergarten DLI classrooms were video recorded in order to capture the entirety of the language input in those classrooms. To achieve this aim, multiple video cameras were used to capture different perspectives on what was happening in the classrooms. Regular visits were made to these classrooms over the course of one year to document instruction and opportunities for learning over time. In addition, classroom observations using carefully designed and piloted protocols were used to complement the video recordings. The classroom video data were then transcribed and analysed in using the CHILDES software (MacWhinney 2000), with CHAT and CLAN. Using these data, we examined what the most frequent pedagogical activities were in the English, Chinese, and Spanish DLI classrooms by following the coding conventions created by Collins et al. (2012). In so doing, we sought to understand the frequency of the following activities in the different dual language classrooms: classroom procedures, language related episodes, text-based input, text-related discussion, and personal anecdotes. The following research questions were investigated:

RQ1: What are the most frequent pedagogical activities in the English, Chinese, and Spanish DLI classrooms?

RQ2: To what extent does the frequency of pedagogical activities in the different DLI classrooms differ as a function of target language?

## 5 Method

### 5.1 Context: The Delaware dual language immersion model

Data for the current study were collected in Delaware, a state in the Mid-Atlantic region of the U.S. The Delaware dual language immersion model was established in 2011 through the then governor's World Language Expansion Initiative. The model was first implemented during the 2012-2013 academic year in three school districts throughout the state. Since then, the number of programs and participating districts and schools have expanded annually and there are now immersion programs in almost 60 schools in twelve out of the sixteen school districts in the state with the number growing annually. Currently, there are Spanish-English and Chinese-English program options that begin in kindergarten and continue through high school. The program is structured as a $50 / 50$ model from kindergarten (ages 5-6) through to fifth grade (ages 10-11), wherein students spend half of their day learning through the target language (e.g., Chinese, Spanish) and half of their day learning through English. In middle school, grades 6-8 (ages 11-14), students continue with intensive language learning opportunities with approximately $30 \%$ of their studies being conducted through the target language. For high school, grades 9-12 (ages 14-18), the Delaware state department of education has established an agreement with partnering universities to provide dual enrollment course options.

The elementary 50/50 model is structured slightly differently for lower grades than the higher elementary grade levels. In both models, students have two teachers, an immersion language teacher (Spanish or Chinese) as well as an English teacher. Students switch between classrooms and instructors at the midpoint of every school day. In the instructional split from kindergarten through to third grade, the half of the day that is spent in the target language includes foreign language arts classes, maths, and science. The target language literacy and language arts class lasts for 50 minutes, science in the target language lasts for 40 minutes, and maths in the target language lasts for 60 minutes. When students transition to the English classroom, they then spend 120 minutes doing English language
arts mixed with social studies content followed by a $20-30$ minute bridge lesson. During the bridge lesson, the English instructor uses the time to reinforce content learned in science and math delivered through the target language. It is important to note that the bridge lesson is not used to reteach the content, but rather to complete exercises and activities that apply the content learned to reinforce learning and assess student development.

The instructional split for content taught in grades 4 and 5 is the same, but with adjustments made to the time spent in each area. The half of the day spent in the target language sees an increase in target language use for literacy/language arts instruction ( 60 minutes) and a decrease for science ( 30 minutes). Similarly, on the English side of instruction, English language arts is scheduled for 100 minutes and a 30 -minute time block is designated for social studies. Further, the bridge lesson is also slightly decreased to 20 minutes as students in these grade levels have now established a higher level of language proficiency in the target language.

As students transition to middle school, most school districts include seven class periods during the school day. For the language immersion students, two of the seven courses are taught in the language. One class period is for Spanish or Chinese language arts and the other class period is a content course taught through the target language. The state immersion model designates social studies as the content area course to be offered; however, in practice, some school districts have instead offered science through the target language. A driving factor behind this variation has been the availability of qualified instructors who are able to teach both the content and the language.

The continuing model as immersion students transition into high school has just recently been established because the oldest cohort of immersion program students are in ninth grade during the 2021-2022 academic year. The high school model enrolls all students in the Advanced Placement (AP) language course during the ninth-grade year. Students who earn a score of 4 or 5 on the AP exam, as well as students who score a 3 and have instructor recommendation may then continue into dual-enrollment language courses for their remaining high school years. The state department of education established a Memorandum of Agreement with two Delaware universities that outlines the courses offered and guarantees that students who complete the course will earn credit that is transferrable to either university. The courses include advanced composition, speech, and civilisation courses. Only one course option is offered annually, but with a rotating schedule from year to year. This approach guarantees a unique course offering to students in each year of their high school experience. It also means that a student who continues in the program all four years (grades 9-12) will earn both high
school credit and up to 15 credit hours of college credit in the target language by the time they graduate from high school.

### 5.2 Data

Several sources of data were collected for the current study including classroom observation and recordings, instructor surveys and questionnaires, and stake holder surveys. The expansive classroom observation data includes recordings of both Chinese immersion and Spanish immersion classrooms at all grades in the elementary immersion program. At the time of data collection there were only a few students in the oldest cohorts in middle school and thus the data collection was targeted on the elementary school populations. The data analysed for this study came from kindergarten classes at two different schools. One from a Chinese immersion program in central Delaware and the other from a Spanish immersion program in northern Delaware. The Spanish immersion program that was observed had slight variation from the outlined state immersion model. The program still follows a 50/50 immersion model but with slightly different breakdown in content area instruction focus.

In the Chinese immersion program, the researchers were able to observe and record the instructor's classroom. At least two cameras and an additional audio recording device were used to record the classroom interaction. One camera focused on students and student interaction and the second camera was focused on the instructor(s) during the class. Additional audio recording devices were used as needed for improved sound quality. In the Spanish immersion program, both the Spanish immersion classroom and the English partner classroom were observed and recorded. The same approach was taken in classroom recording and data collection. Researchers arrived before the students arrived for school and spent the entire day recording the classrooms. Each classroom was observed at least two to three times. The researchers collecting data also took observation notes to identify any notable events or exceptionalities that occurred during recording.

Characteristic of the immersion programs in the state of Delaware, the Chinese immersion classrooms observed were unidirectional whereas the Spanish immersion classrooms were bidirectional. This design is semi-intentional, but primarily determined by the enrolled student body: Almost all students in the Chinese immersion program are English L1 speakers learning Chinese as L2, with only a few instances of students who are English L2 speakers (either Chinese L1 or who speak a language other than Chinese or English as their L1). Further, the Chinese immersion classrooms function as a cohort within a school where there are two
classrooms of Chinese immersion students in the school and all other students and classes in the school are not immersion, but English monolingual.

The Spanish immersion programs in the state include both unidirectional and bidirectional programs. While data was collected from both programs, the excerpts analysed for this study came from the bidirectional one. The observed school is a $100 \%$ immersion school where all students are Spanish immersion. This school also strives to balance classroom cohorts with approximately $50 \%$ Spanish L1 speakers learning English as an L2 and 50\% English L1 speakers learning Spanish as an L2. There is variation from this targeted structure dependent upon the background of student enrollment.

Following data collection, classroom observation data was then uploaded to a database. Members of the research team with advanced language expertise in the target languages (Spanish and Chinese) then transcribed all data. These transcriptions were compiled into a corpus for analysis and evaluation.

### 5.3 Data preparation and analysis

The classroom data from kindergarten classrooms were video recorded and transcribed following CHAT conventions (MacWhinney 2000). Transcribers were L1 speakers or advanced-level L2 speakers of Mandarin Chinese, English, or Spanish. Important for the analysis, line breaks in the transcripts were introduced at the start of each new Analysis of Speech unit (ASU). ASUs were defined following Foster et al. (2000: 365): "a single speaker's utterance consisting of an independent clause or subclausal unit, together with any subordinate clause(s) associated with either". Transcription accuracy was checked by at least two members of the research team before analysis.

The speech provided by teachers in each classroom was coded using the categories created by Collins et al. (2012) and used in subsequent research to understand the functions of teacher talk in instructional contexts (e.g., Huensch 2019). Following this previous research, only teacher speech was coded. As previously noted, the kindergarten classrooms included two teachers and the talk from both is analysed here. This coding included the following pedagogical activities: classroom procedures (for teacher talk that involved organizing activities and managing student behavior), language-related episodes (for talk that focused on features of the language, such as grammar, pronunciation), text-based input (for scripted language, such as reading from a PowerPoint presentation or a book), discussion of text-based input (for any discussion related to scripted language), and personal anecdotes (for any talk involving personal information and stories). Using these categories, an independent tier was created called \%TTC (teacher talk
code). Each ASU unit of teacher speech (identified at the beginning of each line with the ID code *TEA) was then coded according to its function, as follows: CPR for classroom procedures, LRE for language related episodes, TBI for text-based input, DTB for discussion of text-based input, and PAN for personal anecdotes. For example:

```
(1) 12 *TEA: Good morning everybody .
13 %TTC: CPR
14 *STU: Good morning miss .
15 *TEA: Let's see who are we missing?
16 %TTC: CPR
*STU: NAME.
    *TEA: He's still over there ?
    %TTC: CPR
    *STU: NAME is missing .
    *TEA: did you have a bad day ?
    %TTC: PAN
    *STU: xxx.
    *TEA: NAME what about the baseball game?
    %TTC: PAN
    *TEA: anything you want to add NAME ?
    %TTC: PAN
    *TEA: Nothing today?
    %TTC: PAN
    *TEA: How's the baby doing ?
    %TTC: PAN
    *STU: good.
    *TEA: getting big ?
    %TTC: PAN
    *STU: he's nine months old .
    *TEA: tell us what you ate for breakfast.
    %TTC: PAN
```

Using this analytical procedure, we were then able to quantify the different functions of teacher talk in the kindergarten corpus of DLI classrooms.

## 6 Results

In terms of the different types of pedagogical activities in the English, Chinese, and Spanish classrooms, Figure 1 shows proportions for the five pedagogical activities used by teachers in the respective classrooms. These proportions show important similarities and differences between the classes. On the one hand, classroom procedures are the most frequent pedagogical activity in each of the different language classrooms: $70.3 \%$ in Chinese, $54.9 \%$ in English, and $47 \%$ in Spanish. This means that a significant proportion of the teacher talk in these classrooms involved providing instructions to students and managing classroom behaviours, especially in the Chinese classroom. Table 1 presents examples of classroom procedures in the different classrooms.

In addition to identifying classroom procedures as being the most frequent type of pedagogical activity, we examined the language used to give those instructions. This analysis indicated a number of differences in the language of classroom procedures. In the Chinese classrooms, all CPR was delivered in Chinese, but, in the Spanish classrooms, $59 \%$ of CPR was delivered in Spanish, 36\% in English (e.g., "NAME you need to sit near me") and $5 \%$ in a combination of Spanish and English.

A second notable difference between the classrooms is that personal anecdotes appear to play a relatively important role in the English classrooms, but less so in the Chinese or Spanish classrooms: $30 \%$ of teacher talk involves personal anecdotes in the English classrooms, but that proportion is $10 \%$ in the Chinese classrooms and $1 \%$ in the Spanish classrooms. The extracts in (2) are examples of such anecdotes from the English classrooms:
(2) *TEA: Does anybody have something fun to share from the weekend?
*TEA: We had two days off from school.
*TEA: Try to remember what you did on Saturday and Sunday hmm or maybe yesterday.
*TEA: Let me tell you where I went after school yesterday.
*TEA: I went to a softball game and I watched PLACE very first softball team.
*TEA: Did you know we had a softball team and a baseball team?
*TEA: How's the baby doing?
*TEA: let's look at NAME he's got something to say what do you want to share today?
*TEA: tell us what you ate for breakfast.
*TEA: Who did your hair today?
*TEA: Did your sister have fun at PLACE yesterday?


Figure 1：Functions of teacher language in the English，Chinese，and Spanish classrooms in percent

Table 1：Examples of classroom procedures provided by teachers from the English，Chinese，and Spanish classrooms

| Organizing activities | Managing behavior |
| :---: | :---: |
| I need a volunteer to come up here and show us what a retell really looks like and then you＇ll get to choose ready？ | Just raise your hand NAME． |
| You can use your own whiteboards to play this game | Everybody crisscross those legs I hope you＇re sitting on your butts for a minute． |
| 蓝色的小鸟组来 NAME 老师 | 安静地坐在地毯上面 |
| ＇blue bird group，come to Ms．NAME＇ | ＇Sit quietly on the carpet＇ |
| 把你的笔记本放在柜子里 | 你在干嘛呢在那儿 |
| ＇Put your notebook in your cubby＇ | ＇what are you doing there？＇ |
| Quien va a empezar？ | Para dónde vas？ |
| ＇who is going to start？＇ | ＇where are you going？＇ |
| Escucha a tu amiguito | Vamos a ver quién está listo |
| ＇Listen to your friend＇ | ＇Let＇s see who＇s ready＇ |

As the extracts indicate, personal anecdotes function as a way for the teachers to engage with students to talk informally about their weekends and out-of-class activities. This takes the form of both teachers asking direct questions to students based on some shared information. For example, the teachers asked one student "how's the baby doing" based on a previous conversation about a new sibling in the child's family. The teachers also appear to use this type of interaction as a check in with the students (e.g., to find out if and what students had eaten for breakfast that morning). In addition to teachers asking direct questions to the students, students also comment on each other's stories. (For example, one student was describing a birthday gift they received from their parents and a second student commented about a new toy truck they received.)


Figure 2: Video still of students in the English class sitting on the carpet to share personal stories

It is also important to note how the different classes use the same space to carry out the different functions. Each morning, the teacher and the students sit in a circle on the mat. It is interesting to note that while all the DLI classes begin their school days in this way, only the English classes use this set-up to discuss and share personal stories. In the Spanish classrooms, there tends to be more singing and story-telling activities rather than sharing personal stories. For example, on one day, students entered with a song they had used in class on a previous day. The song contained key expressions for greetings: "Buenos días, buenos días; Buenas tardes, buenas tardes; Buenas noches, buenas noches". After everyone had entered the classroom and they had been singing the song, students stayed on the carpet to practice greeting each other. Then, students practiced new greetings with teacher scaffolding:
(3) *TEA: Buenos días me llamo señora Name.
*TEA: Buenos días me llamo.
*TEA: Let me hear you.
*TEA: How do you say it?
*STU: Name.
*STU: Name.
*TEA: Me llamo Name.

## 7 Discussion

The current study examined the functions of teacher talk in Chinese, English, and Spanish kindergarten DLI classrooms. In so doing, we sought to better understand the types of language input that young learners in this relatively new pedagogical context can be exposed to. We contextualised our understanding by reviewing previous research involving teacher talk in a variety of FL classrooms (Collins et al. 2012, Huensch 2019, Jia 2017, Li et al. 2016). Taken together, our findings indicate both considerable overlap with this previous research as well as important differences.

First, our finding that classroom procedures account for a large proportion of teacher talk in DLI classrooms is consistent with previous research on this topic (Collins et al. 2012, Huensch 2019). Although some differences are visible across the different languages (e.g., greater use of classroom procedures in the Chinese versus the Spanish classes), a key take-away is that organizing classroom activities and managing behaviors appear to constitute an important function of teacher talk in these classes. Of course, given the age and experience of the students, this is perhaps unsurprising. Indeed, Collins et al.'s (2012) findings involving 11-12-year-olds similarly show high proportions of teacher talk focused on classroom procedures. One interesting finding about the DLI classes, however, was that this type of teacher talk was always delivered in Chinese in the Chinese classes, but it was delivered in Spanish and English in the Spanish classrooms (e.g., $59 \%$ in Spanish).

Collins et al. (2012) discuss the frequency of classroom procedures in their data in terms of the richness of exposure to the language. One consideration at play here is to what extent classroom procedure talk can provide rich, engaging, and meaningful exposure to the target language. This is an important reflection point, given that classroom procedure talk is the most common type of language input for learners in DLI classrooms and FL classrooms more generally. To this end, Collins et al. (2012: 81) noted that "when the role of the teacher went beyond
facilitating oral interaction among students to include interacting with them herself, her own speech became a richer source of input". This is one way that the sharing of personal anecdotes might be a very useful source of language exposure for young learners. However, the experience and proficiencies of students can be expected to shape the extent to which students and teachers can engage in the sharing of stories. At the same time, though, it is likely that these relatively informal uses of the target language can provide a useful resource for language development, as suggested by Jia (2017).

Second, a key difference found among the DLI classes is the extent to which teachers engage students with personal stories and anecdotes. For example, this pedagogical activity accounted for approximately $30 \%$ of teacher talk in the English classes, but it remained relatively infrequent in the Chinese and Spanish classes. Indeed, comparisons with previous research from FL classrooms found the sharing of personal stories to be a relatively infrequent pedagogical activity (e.g., $1 \%$ of the teacher input in Collins et al. 2012). One explanation for this difference could be that it is a feature of specific teachers' approaches to kindergarten learning. For example, even though all kindergarten classes started the day with time on the mat, only the English teachers used this time for sharing stories. It is possible that students' greater proficiency in English is one reason for why this pedagogical activity was particularly common, however, this can only be part of the reason. It also appears that the teachers used this time, as previously mentioned, to check on the wellness of students (e.g., had they eaten breakfast that day). Nonetheless, this function of teacher talk was rich and diverse, involved a variety of topics and a variety of different constructions. It also allowed students the opportunity to interact with each other in a more informal way (e.g., compared to the practicing of greetings).

We should also acknowledge the cultural impact on immersion instruction. All instructors observed in the Chinese immersion programs and most instructors observed in Spanish immersion programs are L1 speakers of their respective languages with a variety of citizenship and cultural backgrounds. These international educators come with strong qualifications, having undergone teacher training and necessary certification, and, at the same time, bring along culturally diverse content learning experiences and backgrounds. In many instances, there are likely differences in the expectations of student and teacher roles and behaviors. One result of this is a bringing together of educational cultures in the immersion programs as teachers bring with them their culturally embedded understanding of classroom interaction. The result is that the immersion teachers learn and adapt to a new culture of learning and teaching. Indeed, some cultural practices persist that also push the students to adapt and collectively form a merged culture of learning.

## 8 Conclusion

The current study set out to better understand teachers' use of the target language in an understudied pedagogical context, DLI classrooms. To achieve this goal, DLI classes in Chinese, English, and Spanish were video recorded and analysed. Our results showed that a common function of teacher talk in these contexts is to organise classroom activities and manage student behavior, consistent with previous research from FL classrooms. Although a number of differences between the different language classrooms were found (e.g., frequent discussion and sharing of personal stories in the English classes), we also found considerable similarities among the different languages. Taken together, these findings provide rich accounts of the instructional input in DLI classrooms.

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## Chapter 8

# The impact of language learning on wider academic outcomes 

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#### Abstract

Much is claimed about the benefits of being bilingual. From improving executive function, through promoting inter-cultural understanding, to mitigating the effects of aging on cognitive decline, bilingualism is framed as something of a panacea for the human condition. In the field of foreign language education, related research has, quite understandably, focused on the implications of being bilingual on the teaching and learning of a foreign language itself. Little of this body of research has expanded its purview to explore the causal implications that learning a foreign language (as opposed to already knowing one) may have in terms of the benefits observed in the bilingualism research. In this chapter, we explore the small body of work that speaks to whether and to what extent knowing more than one language can impact on outcomes like academic achievement, literacy, metalinguistic awareness, employment opportunities, and so on. We identify some of the methodological issues that make interpreting work of this type problematic, and we set forth a research agenda to more rigorously address this important area of inquiry. We conclude by arguing in support of a more prominent position for foreign languages in the primary classroom, but temper this with a caveat to the research community that we need more systematic and rigorous research about the effects of foreign language learning if we are to bring the rest of society along with us.


## 1 Introduction

Are there advantages to being bilingual? This is a straightforward yes or no question with no agreed-upon straightforward answer. From one perspective, the answer is contained in the question itself, and is obvious. Regardless of whether bilingualism is defined as full competence in two languages, or more modestly,

[^20]some knowledge of another language, the very fact of bilingualism is self-evidently advantageous because as the world gets ever smaller, and transmigration introduces ever richer linguistic tapestries to our daily lives, having an expanded linguistic repertoire with which to engage with that world is clearly personally and societally beneficial. A credible answer to the question then, is yes!

However, when academics pose this question, they are typically asking about something else. Not the self-evident, and perhaps arguably run of the mill, advantage of bilingualism itself (after all, more people in the world are bilingual than not (Grosjean 2010, 2014, Bialystok et al. 2012)). Rather, they are likely referencing research over the past few decades that explores the cognitive effects of knowing and using more than one language. For example, whether bilingualism is associated with improved executive functioning. This body of research has been hotly debated (Bialystok et al. 2012, Paap \& Greenberg 2013, de Bruin et al. 2015, Friedman 2016), and remains contested, despite the significant amount of work that has aimed to provide clarity on this question. As far as this body of research is concerned, at best, the only thing that one can state with confidence is that the evidence is "inconsistent" (e.g. Woll \& Wei 2019).

While the question of potential cognitive advantages in bilingual children is interesting (albeit somewhat belaboured by now), in this chapter we focus on a broader concern. Namely, what evidence exists to inform us about whether learning other languages has outcomes that go beyond the ability to use more than one language, and which addresses less ephemeral aspects of cognition than reaction times on Stroop, Simon, and Flanker tests. ${ }^{1}$ In particular, we are interested not only in whether bilingualism in children might have an impact on other aspects of their cognitive or socio-affective performance, but whether learning a foreign language (FL) in taught, input-limited contexts like classrooms, might have knock-on effects in other domains of learning. Increasingly, FL learning is being introduced as a compulsory subject in primary schools (Murphy 2014). In Europe, for example, the age at which compulsory FL learning begins is as low 3 (Belgium), and most European children have started learning an FL formally by the age of 9 (Devlin 2015). While in Europe and other non-anglophone countries, the emphasis tends to be on learning English - though note that all but five European countries require children to learn two FLs (Devlin 2015) - in the UK, this

[^21]policy change is chiefly in response to concerns about Britain's global competitiveness, in view of waning interest in foreign languages at all stages of formal education (Chen 2018). However, this shift in policy has also sparked interest in whether FL learning might be "sold" on the basis of other potential benefits, too (Fox et al. 2020). It is timely, therefore, to consider what the evidence can tell us about the wider impacts of learning or knowing more than one language.

This is a particularly relevant question given the shift of formal language learning to stages of the learners' lives where aspects of the first language (L1) are still in development (e.g., literacy). The L1 system might therefore be more susceptible to some form of influence by the introduction of new languages. There have, to our knowledge, been remarkably few studies that have investigated this, despite the prevalence of FL instruction around the world at increasingly younger ages. We will discuss the small but burgeoning work in this area in this chapter.

The foundation for our discussion stems from a piece of work that we, along with colleagues at the University of Oxford, carried out in 2019/2020 (Murphy et al. 2020). We were commissioned by the Education Endowment Foundation (EEF), a UK-government-funded educational research centre, to carry out a Rapid Evidence Assessment (REA), ${ }^{2}$ reviewing research that addresses the issue of the wider academic outcomes of foreign language learning. The objectives of this REA were to summarise evidence on the effective teaching of a FL and the impact of learning a FL on other academic subjects. The aim was to provide some practical recommendations on best practice in teaching FLs with a view to maximizing benefits of wider academic outcomes, should any be found to exist. Evidence from across the globe was reviewed in three major areas: best practice in FL teaching; the impact of learning a FL on wider outcomes; and the impact of using non-native languages as the medium of instruction. For the purposes of this chapter, we focus on the second of these areas, namely, what the research has so far revealed about wider impacts of learning other languages.

The EEF, who commissioned the original report, are particularly focused on research that speaks to effective classroom practice. They are the designated "what works" centre for education in the UK and have commissioned a large number of

[^22]evaluations of teaching interventions. These have adopted research designs most well suited to supporting causal inferences; randomised control trials (RCTs) in the main, but also quasi-experimental designs (QEDs). These designs have for some time been considered a gold-standard in effectiveness research.

This is because inferring causality depends on making fair comparisons. To evaluate any causal relationship between a teaching approach and student outcomes, the teaching approach must be compared with an alternative. The comparison provides the context for any claims about "what works". However, comparisons can be more or less fair in the way they are made. It is common in FL research to find studies that make unfair comparisons or no formal comparison at all. One way in which comparisons can be unfair is in the way that the groups being compared are generated. If groups of students being compared are systematically different when the research begins (at baseline), we cannot be sure that any difference in outcomes at the end of the research is attributable to the teaching approach or the characteristics of the groups being compared. In QEDs, researchers attempt to create groups that are similar in terms of characteristics that are considered important, through statistical matching. For example, a researcher might ensure that the average age between groups is similar, or that the average scores on FL tests are similar. However, while we can make informed guesses about what characteristics are likely to be important and then match for them, we can never be sure that we have accounted for all the possible influences on student outcomes. RCTs help to address this by randomly allocating individuals or groups of individuals (cluster RCTs) to comparison groups. Random allocation ensures that any differences between groups at baseline is only a result of the play of chance and not a result of systematic differences between them. Any difference in outcome can then be more confidently attributed to the intervention and not the characteristics of the groups. RCTs are thus the most trustworthy design for ensuring that like is being compared with like (Chalmers 2018). Whether outcome measures are academic achievement, scores on a vocabulary test, levels of student engagement, teacher attitudes, or anything else, we benefit when researchers have endeavoured to minimise the potential for biases to mislead us when we make those comparisons.

In the UK, the uptick in interest in RCTs since the EEF's inception, after which the term more firmly established itself in the discourse around educational research, has led many to advocate for the increased use of these research designs in educational settings (Connelly et al. 2017, Chalmers 2018). Other designs have their place, and there is a lot to be learned from more descriptive, exploratory, and correlational type research. However, in line with the EEF's own research, the focus of our REA was specifically on available evidence from RCTs and QEDs.

Hence research of this type will be the focus of our chapter. In the following sections we present the major findings of this REA in relation to the effects of knowing, learning, and/or using more than one language on outcomes beyond just the self-evident one.

## 2 Bilingualism and cognitive abilities

As we've already mentioned, the relationship between bilingualism and cognitive skills has been much investigated over the past few decades. Some researchers have extolled numerous perceived virtues of being bilingual, arguing that bilingualism confers specific advantages related to greater mental flexibility - in the form of task switching, attentional control, staving off dementia, and the like (e.g., Bialystok et al. 2012, Costa 2020). Other researchers are clear that there is a great difficulty in replicating these findings and that there is little compelling evidence to support this claim (e.g. Paap \& Greenberg 2013, Woll \& Wei 2019). Many of the studies we found in in our REA compared already bilingual participants with monolingual participants on specific outcome measures, rather than comparing the effects of learning a FL, specifically. We will, therefore, mention some of this work in our discussion, but we will try to be clear about whether we are referring to research on bilingualism or to research on FL learning. Defining the construct of bilingualism is a challenging endeavour in and of itself and (yet) another area where there is little agreement (Murphy 2014). For the purposes of our discussion, we distinguish between children who are learning two (or more) languages in naturalistic settings and those who are receiving instruction in another language in the context of formal education. The former we will refer to as bilingual; the latter we will refer to as FL learners. ${ }^{3}$

## 3 Wider outcomes of learning languages

In this section, we examine some of the main areas that our REA identified as having been investigated using either RCTs or QEDs specifically addressing the question of whether being bi/multilingual, or having learned another language in instructed settings, has a wider impact beyond being able to speak two or more languages.

[^23]
### 3.1 Metalinguistic awareness

Metalinguistic awareness refers to the ability to think about language independently of its literal meanings and use. It relates to understanding how a language works as a system. When we are metalinguistically aware, our tacit knowledge of language (i.e., being able to use it without explicit awareness of how we are manipulating it to make meaning) becomes more salient. That is, we are able to talk about how we use language and understand language as a process (see Roehr-Brackin 2018 for a review). Several studies (see reviews by Fox et al. 2019, 2020) over the past few decades have investigated whether learning more than one language contributes to the development of metalinguistic awareness. They tend to find that knowing more than one language can result in understanding the similarities, differences, and ultimately the arbitrariness of language (e.g., it's apple in English but pomme in French, but these are essentially arbitrary sounds that could just as easily be wug or zibber, or anything else). For example, Murphy \& Pine (2003) compared English-German bilinguals against monolingual Englishspeaking children. They asked children to complete a wug-type task (Berko 1958) where they had to generate the past tense forms of nonsense verbs (e.g., This is Graham. Graham is plinking. Yesterday he $\qquad$ ?). Murphy \& Pine's (2003) findings suggested that the bilingual children tapped into different, more explicit, representations of their knowledge of verb structure relative to their monolingual peers. The evidence on the associations between bilingualism and metalinguistic awareness, considered in our REA tends to agree that bilingualism is associated with better metalinguistic awareness compared to monolingualism. This was true for phonological, phonotactic, morphological and syntactic awareness. There are also examples of research where children were becoming bilingual through attending bilingual schools. For example, Reder et al. (2013) recruited French children in France who had been learning German since age four. These children were not in a typical instructed FL setting but rather were in a partial immersion programme where half the instructional time was in French, the other half in German. These French-German bilinguals had higher scores than the monolinguals on tests of compounds, morphological awareness, and syntactic awareness. Similarly, Laurent \& Martinot (2010) found that children learning another language by attending a bilingual education programme showed superior phonological awareness in comparison to their monolingual peers. They also suggest that these differences strengthen over time.

There are too many studies investigating metalinguistic awareness within populations of children who know and use more than one language to review in this
chapter. ${ }^{4}$ That said, it is important to note that the preponderance of these kinds of studies examines metalinguistic awareness among children who have developed bilingualism in naturalistic settings. A much smaller proportion assess the effects on metalinguistic awareness of instructed FL learning, and those which do rarely adopt designs that can support confident causal inferences, as discussed above. With those caveats in mind, we see most research converging on the same general conclusion: learning more than one language can increase metalinguistic awareness. In other words, having knowledge of two or more languages is likely to lead to these learners being better language processers and analysers. This is an important set of findings. It matters for educational contexts because we know that metalinguistic skills underpin literacy (e.g. Murphy 2018), and literacy underpins academic achievement.

### 3.2 Academic achievement

There tends to be a strongly held belief among advocates for bilingualism and FL learning that learning or knowing another language has substantive academic benefits (e.g. Holster Stewart 2005). In reality, we have very little evidence, particularly from studies adopting experimental designs, which speak directly to the wider academic achievement of children who are either bilingual and/or learning a FL in school. Perhaps because of this paucity of evidence, we have anecdotal evidence that many schools might drop the FL class in favour of other more "academic" subjects when there are looming pressures from national assessments (e.g. Enever et al. 2011, Murphy 2014). On the one hand, then, we have positive moves from governments about the importance of learning FLs, and, on the other, anecdotal evidence that FL learning is often not afforded the same status in the curriculum as more traditional academic subjects. Given that governments are mandating the inclusion of FL in primary curricula, it is increasingly important to have a better understanding of what this means, if anything, in terms of academic achievement. Some examples of studies which speak to this issue are presented here.

Zaunbauer \& Möller (2010) examined maths attainment of German grade 1 and 2 children in a bilingual school (where all subjects including maths were taught in English), against monolingual peers in an all-German medium of instruction school. Maths attainment was similar in both groups, but the children in the English medium school made faster progress in maths than the monolingual children. These results were consistent with a related study by Kuska et al. (2010)

[^24]also showing that German speaking children in bilingual vs. monolingual programmes tended to show better learning and memory performance, skills which underpin academic attainment.

Another study from Germany, carried out by Gunzenhauser et al. (2019), compared verbal competence of 21 third grade bilingual and monolingual children. The monolingual children in this study performed slightly better than the bilingual children on measures of verbal competence, and they found no differences between the groups on other measures of reasoning skills assessed. This study, then, did not provide any evidence that bilingualism confers advantages on these important academic skills.

In the USA, Taylor \& Lafayette (2010) compared children in the Louisiana State bilingual programme with monolingual children. They found that children in the bilingual schools outperformed monolinguals on measures of maths, science and social studies. They also found differences in favour of bi/multilingual groups on a test of basic reasoning skills. Also in the USA, Cooper et al. (2008) analysed the $\mathrm{SAT}^{5}$ reasoning scores of more than 9,000 children in Atlanta Georgia and compared the scores of children who had taken a FL course with those who had not. Those who had taken a FL course outperformed those who had not, a difference that was more pronounced for students who had spent more time learning FL.

It is difficult to establish causal relationships in most of these studies, even though they attempt to carefully compare those with multilingual competence against those without on measures of academic achievement. This is because, in most of these studies, the comparison groups are systematically different at baseline from each other. One is bilingual, the other is not. Because it is practically and ethically impossible to randomly assign children to become bilingual and others to not (and in so doing create unbiased comparison groups), differences observed between these pre-existing groups could be explained by something common to these groups other than knowing and/or using another language. For example, the attitudes and support for education in general among parents who have deliberately sought out relatively scarce bilingual education programmes for their children may differ in important ways from their peers who do not seek out bilingual education opportunities. Nonetheless, these findings are useful because they hint to a potential that needs to be explored more systematically with more carefully controlled designs, and most especially in the context of instructed FL learning.

[^25]
### 3.3 Language and literacy skills

Research has compared bilinguals and monolinguals on measures of literacy, most of which has suggested that bilinguals have advantages in this area (see Murphy et al. 2020 for more detailed discussion). For example, Silvén \& Rubinov (2010) have suggested that bilinguals respond better to early literacy teaching than monolinguals. Modirkhamene (2006) indicates that bilinguals have higher scores on English reading comprehension than monolinguals. Knell et al. (2007) demonstrated that bilinguals have superior oral language skills. And Bialystok \& Feng (2009) argued that bilinguals have better vocabulary recall than monolinguals. These studies are interesting, important, and certainly indicative that bilinguals can show superior performance relative to monolinguals in these areas. They focus on examining inherent traits (being bilingual or not) in relation to their different outcome measures. They do not explicitly compare a particular approach to pedagogy with alternatives. Nonetheless, they are suggestive that children who know more than one language might be advantaged in relation to aspects of literacy, with obvious implications for academic achievement.

There are several studies which have compared children in bilingual education programmes with those in monolingual programmes, in relation to language and literacy scores. Such studies have demonstrated higher levels of linguistic performance (Lazaruk 2007); superior phonological skills (Laurent \& Martinot 2010) and more rapid growth in vocabulary knowledge (Lo \& Murphy 2010). Other work has suggested superior performance on reading comprehension for students in bilingual programmes (e.g. De Sousa 2012). As above, these studies are important as they allow us to gauge the nature and extent of any effects of participation in bilingual programmes. But again, the children in these studies were not randomly assigned to participate in bilingual education or not, and therefore systematic differences between the participants at baseline may explain the differences in outcomes between the groups. Indeed, children or families typically self-select to participate in bilingual education programmes (Murphy 2014), so many of these studies are de facto comparisons between families who choose bilingual education and those who do not - a subtle but important distinction. Causal relationships then cannot convincingly be inferred from these studies, as indicative as they may be.

One study that does support more confident causal inferences examined the question of whether learning a FL confers advantages in the domain of literacy. Murphy et al. (2015) report on a small-scale RCT of a group of seven-year-old English-speaking children (in England) who were randomly assigned to one of three groups: Italian, French or Control. The Italian and French groups received

15 hours of instruction in either Italian or French, respectively. The control group received no FL instruction, and at that stage in their academic progression had never been taught a FL. All children were pretested on measures of English (the L1) reading and spelling, including measures of phonological awareness. After the 15 weeks of FL instruction, all children were tested again on the same measures. The 15 weeks' worth of FL instruction had a positive impact on some aspects of children's developing L1 literacy skills, particularly in phonological processing. Furthermore, there were some advantages for the children in the Italian group over the French which might indicate that learning a FL with a transparent mapping between sounds to graphemes (as in Italian) can be particularly helpful in shaping developing L1 literacy skills where the mapping is considerably more opaque (as in English). This finding, while derived from a small-scale study and only 15 hours' worth of FL learning, is indicative that learning a FL in input-limited contexts can have positive impacts on developing L1 literacy, possibly through increasing metalinguistic awareness, which in turn could support academic achievement.

Another type of design which is lacking in this area is longitudinal. Longitudinal designs tend to be resource intensive and, consequently, tend to be less prevalent in applied linguistics research. However, there are some important, if rare, examples of longitudinal research that also adopts RCT or QED methodology. One such example is Jaekel et al. (2017). They investigated linguistic development in German children learning English at school from age 6 and compared these to those who had been learning English since age 8. Children were tested on various tasks including picture recognition, sentence completion and reading comprehension when they were aged 10 to 11 , and then again when they were aged 12 to 13 . At the first assessment point in this longitudinal study, there was an advantage for the children who had begun learning English at age 6. However, when re-tested the following year, the later-start group (who had begun learning English at age 8) began to overtake the early-start group. This is an important finding as it demonstrates the truism that learning takes time. While children are sometimes regarded as natural language learners who "pick up language like a sponge", we know from decades of research that this is an inaccurate characterisation of how language development proceeds (in both L1 and L2/L3/Ln) in children.

### 3.4 Creativity

Creativity, defined variously in this body of literature as including divergent thinking, structured imagination, innovative thinking, and non-verbal creativity
and flexibility, is considered a desirable educational outcome (Harris 2016). Proponents of the bilingual advantage idea have argued that knowing more than one language leads to greater creativity and, thus, FL learning/bilingualism may help to support this aspect of educational development. There are studies that support this claim. In the review by Fox et al. (2019), seven studies adhering to an experimental design were found that addressed this issue. Two studies (Kharkhurin 2009,2010 ) suggested that bilinguals have higher scores on tests of divergent thinking and structured imagination than monolinguals (Kharkhurin 2009); and that bilinguals have an advantage on non-verbal creativity (Kharkhurin 2010). Kostandyan \& Ledovaya (2013) also reported advantages for simultaneous bilinguals relative to monolinguals on measures of nonverbal flexibility. However, other work studying bilinguals has not found such an advantage on measures of creativity. For example, Lee \& Kim (2010) investigated Korean-English bilingual students (between 7-18 years old) and found no difference between groups of balanced, unbalanced and/or monolingual students on tests of innovative and adaptive creativity. A recent study by Booton et al. (2021) recruited 111 bilingual children in the UK who completed three separate measures of divergent thinking alongside measures of nonverbal IQ, vocabulary and exposure to English. This study, like Lee \& Kim's (2010), found no advantage for bilingual children over monolinguals. This work on creativity in bilingualism is aligned with the work mentioned earlier on cognitive advantages (§2), as it has been argued by some that it is the alleged advantages bilinguals have with executive functions (e.g. Sampedro \& Peña 2019) that leads to improvements in creativity. Other accounts suggest that bilinguals are more creative because they have more diverse life experiences (e.g. Ritter et al. 2012). As with the research on putative cognitive advantages in bilinguals, this area is fraught with inconsistent findings.

Some research investigating creativity in FL learners has also suggested associated advantages. Fürst \& Grin (2018), in a study looking at adult FL learners, demonstrated a positive correlation between FL learning and divergent thinking. Research by Ghonsooly \& Showqi (2012) assessed the creativity of Iranian secondary school girls who had been learning EFL for at least six consecutive years and compared it with similar students who had never formally studied English. The EFL learners demonstrated better scores on tests of creative thinking.

In both the bilingual and FL contexts, we can see then that some research has employed experimental designs to investigate whether knowing more than one language leads to superior performance on measures of creativity. However, as with much of the research on cognitive advantages in bilinguals, the findings are relatively mixed and/or thin on the ground. To address this question properly, we need many more experimental studies with appropriately matched control
groups on agreed-upon measures of creativity. Until this work has been carried out, the jury is still out on whether creativity is fostered through knowing more than one language.

### 3.5 Communicative and intercultural competence

Communicative competence refers to a language user's knowledge of the mechanical aspects of language, such as syntax, morphology, and phonology, as well as the user's social knowledge of how and when to use particular aspects of a language (i.e. pragmatics). When we learn another language, we also develop knowledge of the culture(s) that use that language. For example, communicative and intercultural competence in an East-Asian language like Thai will include knowledge of the hierarchical honorifics and personal pronouns considered important for the Thai social script, and how to use them appropriately. One of the stated reasons for supporting FL instruction in England is to "... provide[s] an opening to other cultures", and to "... deepen their understanding of the world" (DfE 2013: no page). Being able to communicate with others using another language and having increased intercultural awareness and understanding are laudable outcomes one might predict would naturally stem from knowing more than one language. Having communicative competence in another language is expected to bring an individual closer to the culture associated with the language that is being learned. Some studies have, not surprisingly, looked at communicative and/or intercultural competence trying to understand the nature of this relationship.

In terms of communicative competence, Siegal et al. (2010) studied the effect of L2 learning on conversational understanding in German-Italian and EnglishJapanese bilinguals. German-Italian children (living in Italy with German as an L1) were statistically significantly better able to identify violations of conversational maxims (cf. Grice 1975) than Italian monolinguals when assessed using the Conversational Violations Test in Italian. Results were similar for EnglishJapanese bilinguals (living in England), who demonstrated greater sensitivity to conversational maxim violations than Japanese monolinguals in Japan. Siegal et al. (2010) argue that these results support the claim that L2 learning contributes to better conversational competence.

In an experimental study on young FL learners in Portugal, findings suggested that participating in a three-month programme called Awakening to Languages, compared to normal FL instruction, led to superior oral comprehension and attitudes towards language and cultural diversity (Coelho et al. 2018). In another study looking at oral competence in FL, Domínguez \& Pessoa (2005) suggest that
early learning of a FL supports oral skills and confidence in using the language. Both of these studies, therefore, suggest FL learning supports communicative and intercultural competence.

Heining-Boynton \& Haitema (2007) examined students' attitudes towards FL learning over ten years from elementary to high school, in North Carolina. They found that students had long-lasting positive attitudes towards language learning, FL speakers, and foreign cultures. They attribute this to engagement in instructed FL learning from the early grades. Note, though, that they did not compare the attitudes of this group of learners with others who had not studied FL from the early grades, so causal relationships are tentative at best. Nonetheless, these findings are consistent with a study by Merisuo-Storm (2007) in Finland where more positive attitudes towards FL learning were reported in children in a partial immersion programme relative to monolingual children. Similarly, Hood (2006) reported that early FL learning led to raised positive attitudes towards other cultures.

In an example of a relatively rare longitudinal study in the UK, which included a focus on intercultural awareness, Driscoll et al. (2013) suggest that FL programmes need to be more focussed on delivering "intercultural awareness" as an outcome, particularly given the UK government's view that this is an important by-product of FL learning (see above). In their three-year study, they investigated teaching approaches, staff attitudes towards intercultural understanding, and students' attitudes in UK primary schools. Over $50 \%$ of the teachers in their study reported that developing intercultural sensitivity was a core aim of learning and teaching at primary level (as per curricular guidance), however, there was a general lack of medium to long-term planning to develop it, and there was an observed "mismatch" between the stated importance of this outcome, and the actual practice devoted to developing it in classrooms. Pupils also mentioned they did not have sufficient time in class to develop an understanding of cultural issues that were of interest to them.

Despite these studies suggesting that learning a FL and/or being bilingual can improve intercultural awareness, there is surprisingly little relevant research in this area, despite being a stated aim in many governmental FL policies, such as in the UK (see DfE 2013). Of those studies that exist, even fewer have employed experimental designs in which to explore this important question.

## 4 Methodological issues \& research agenda

In §3 we briefly reviewed some of the research that has emerged examining the impacts of bilingualism and/or FL learning on general academic achievement,
metalinguistic awareness, language and literacy, creativity and communicative and intercultural competence. There are other effects that have been studied that are beyond the scope of this chapter. One is employability, where it has been argued that we need (particularly in English-speaking contexts like the UK) to support FL learning and bilingualism, so we will have an internationally competitive workforce (Mitchell \& Myles 2019). Our REA reviewed a handful of studies that touch upon this, which generally converge on the conclusion that employers and employees alike view the ability to use more than one language as advantageous (Murphy et al. 2020). However, these studies do not tell us anything about whether this translates into actual competitiveness in the job market for bilinguals.

Compared to the vast body of work that has investigated the so-called cognitive benefits of bilingualism, there hae only been a handful of studies that have examined wider impacts of FL learning. This is lamentable because more children around the world are exposed to another language in instructed FL settings than any other context (Murphy 2014). Critically, we need more work in this area, and particularly more work that adopts designs that are better equipped to help us untangle causal relationships between what we do in the classroom and the effects on outcomes that we value. Before we articulate the research agenda we would like to see developed, we will explain why we are concerned with the overall quality of research thus far.

The studies we were looking at in the REA were focused on a specific and narrow type of research design - namely RCTs or QEDs. Many researchers in the behavioural social sciences agree that such designs represent the best way of identifying "what works" and if we want to establish a shared understanding of best practice in the language classroom, we need more research which follows this experimental approach. A major finding of our REA was that there were really very few RCTs or QEDs which examined this question. Within the context of FL learning, there were only a handful. Indeed, most of the work we found in the REA related to bilingual vs monolingual comparisons, where the basic trait of being bilingual (or not) was not something that was randomly assigned but rather, something the participants brought with them. This is not to suggest that work of this type is uninformative. But it only takes us so far. If we want to really understand whether learning a language has reliable and predictable impacts on other domains of learning (apart from linguistic ones), we need many more RCTs, where participants are allocated to alternative teaching interventions on the basis of chance and outcomes that are meaningful to them and their teachers are compared. Reducing biases in this way allows us more confidence in the causal inferences we can subsequently make. In an odd way, such a design is becoming
more difficult because finding a true monolingual comparison of children who have not been taught a FL is becoming increasingly difficult. Nonetheless, there is still scope for these designs within the area of FL learning, particularly for young learners. We believe that without such experimental designs we will at best be able to say that X is associated with Y (learning a language is associated with higher metalinguistic awareness, for example) instead of X leads to Y (learning a language increases metalinguistic awareness). If we are to effectively and positively influence and support FL education policy, reliable evidence on the effects of that policy is crucial. In educational contexts we'd like to be able to confidently recommend specific ways of teaching to teachers, specific ways that have been demonstrated to work through rigorous, unbiased, comparisons. Until we have more RCTs in this area, we will not be able to do so. This lack of RCT research is not unique to this area within applied linguistics. A systematic review in the field of EAL, carried out by Murphy \& Unthiah (2015) and subsequently replicated and extended by Oxley \& De Cat (2019), conducted an exhaustive search for eligible literature from around the world. It revealed that vanishingly little relevant research had adopted this design.

Another challenge with much of the work that we found in our REA, and reported here, particularly in relation to the debate around the so called bilingual advantages, is that many of the outcome measures are proxies for things we are actually interested in. This research may well show that bilinguals outperform monolinguals on psycholinguistic tasks like Stroop, Flanker and Simon, but knowing this only has utility to teachers and educational policy makers if it is a harbinger of (or at least related to) an improvement in a real-world educational task (such as solving word problems in maths). Some of the work on creativity cited earlier uses divergent thinking measures, but these are not necessarily immediately transferrable into the classroom. Indeed, even agreeing upon what would constitute a reliable measure of the arguably rather subjective construct that is creativity is a challenge. Research in these areas rarely takes the extra step to investigate whether these proxy measures relate to specific outcomes that teachers are interested in. While not all work in this area claims to inform pedagogy, there are nonetheless good arguments as to why proxy measures for educational success may be misleading. We would like to see researchers take that extra step more frequently to assess whether proxy outcomes translate into outcomes that are more informative to teachers, schools, and policy makers.

Finally, a major difficulty that we face in this area, regardless of who the participants are (i.e., bilinguals or FL learners), relates to publication bias. This kind of bias refers to the difficulty in finding published studies that contradict the orthodoxy of the day in a particular field, not because there are none, but either
because research that contradicts the orthodoxy are more frequently rejected by journal editors or just not submitted for publication in the first place. We know that publication bias is a real problem in the field of bilingualism research. For example, de Bruin et al. (2015) and Lehtonen et al. (2018) found through their analyses that research on bilingualism and cognitive function was much more likely to be published if it confirmed an advantage. They also found evidence for selective outcome reporting. Researchers tend to use a battery of tests to tap into the constructs under investigation, but analyses suggest that only those tasks where advantages were found end up being reported. It should be obvious why this is a misleading practice. Picking and choosing to report only those cases when statistically significant findings emerge is tantamount to flipping a coin ten times, it coming down tails on the first eight flips and heads on the final two, then presenting only the two final flips to argue the coin is double-headed. Many of these issues in research are discussed in Bishop (2020) and solutions she advocates within experimental psychology are equally relevant for the field of applied linguistics. It is now a well-worn cliché, but we really do need more research in this area. We need to be much more willing to publish null results, and in an ideal world, pre-register our research designs and/or manuscripts, through organisations like the Centre for Open Science (www.cos.io) to enable greater clarity and transparency throughout all stages of research and feed into productive replication.

It will not come as a surprise, then, that as a research agenda we would like to see more, and more diverse, forms of research that tap into the wider impacts of FL learning on other outcomes. From an educational standpoint those other outcomes should realistically be focused on factors that we know contribute to academic attainment (language, literacy, engagement, motivation, self-regulation, and the like).

We would also like to see more experimental work in the form of RCTs. The areas discussed in this chapter are so pertinent for educational contexts, and have such direct (potential) impacts on practice, that we really need to take these stakeholders into account when thinking of what areas we need to research and what designs to employ. As researchers, we often have good ideas about what works in the FL classroom, but these ideas must be seen as feasible by teachers and must address outcomes that teachers and learners regard as important if they are ever to be implemented in the classroom. Collaborating with teachers to find out what questions around FL pedagogy they would like answered and to work with them to design and implement experiments to evaluate these questions can be an effective way to meet this aspiration. One approach to this is through Priority Setting Partnerships (PSPs). PSPs employ a well-established method where
end users of research (in this case teachers) work together to set and publicise research priorities with a view to maximising the chance that new research addresses demonstrated needs and interests (Staley \& Crowe 2019, Chalmers et al. 2021). The outcome of a PSP is a set of prioritised research questions. Some of which may have already been addressed by the literature, but some may yet require systematic investigation. Following from the PSP, the next step is to prepare a systematic review on the topics that have not yet been investigated. A systematic review enables researchers to set a priori inclusion and exclusion criteria in addressing specific research questions relating to extant published literature. It enables a researcher to gather a more comprehensive picture of a current state of research within a particular domain, and furthermore, mitigates some of the bias mentioned earlier that can creep into research. Where possible, meta analyses can be carried out to assess the magnitude and direction of any effects of a pedagogical intervention on the basis of all of the relevant research. This allows us to better understand the likely impact of these interventions. The third step in our ideal research agenda would be to work with teachers to design an RCT, informed by the findings of the PSP and systematic review, to evaluate the effects of a teaching intervention on outcomes considered important and meaningful. As indicated earlier, this cycle of PSP, systematic review ormeta analysis, intervention study is not the only way to go about research. But we feel it deserves a more prominent place in the current research ecosystem. This, not to displace other forms of research, but to complement them. We believe that the type of research we have described here is missing, to the detriment of a holistic understanding of the relationships between learning other languages and outcomes beyond learning the language itself.

Finally, in terms of language and education, we would like to see more joined up thinking in respect of how the FL classroom is likely to consist of more than monolinguals. As referenced earlier, many estimates suggest more people (and this includes children) are bilingual than not. Many such bilinguals (or at least, emergent bilinguals) are in classrooms and are being taught foreign languages. Yet surprisingly, there is barely any research that has examined what FL means for an already bilingual student, what advantages or challenges that student may face, how a teacher should approach FL learning in already bilingual children, and the like. Furthermore, in governmental policy and curricular guidance relating to FL education (at least in England) the FL documents seem to completely ignore the fact that a significant proportion of children at primary school are learning EAL and hence bring knowledge of at least two languages to the FL classroom. This is just beginning to be explored (e.g. Costley et al. 2020) and we need to see much more research examining questions around this area.

## 5 Summary and conclusion

In this chapter we have presented a relatively brief summary of some of the main findings of a larger REA asking questions about what available research says about the potential wider outcomes associated with learning more than one language (Murphy et al. 2020). We presented some of the studies looking at whether bilinguals and/or FL learners show superior gains in metalinguistic awareness, academic achievement, language and literacy, as well as creativity and communicative and intercultural competence. A background for this discussion was the wider work on cognitive advantages in bilingualism. In general, the research we discussed, which largely adhered to either randomised control trials or quasiexperimental designs, has shown positive impacts of learning more than one language on these outcome measures. However, the work is not without its limitations, and we discussed in this chapter some of the methodological challenges inherent in asking these questions, and in the specific extant research. We also talked about research that we would like to see in terms of specific research designs and approaches to tackling research to make it more useful to stakeholders within education. These questions concerning wider outcomes of language learning have the potential to have a significant impact on educational attainment, so more, and more rigorous, work needs to be done in this area. Despite the methodological problems we discussed in this chapter, we are optimistic that once this research agenda has been taken up and further developed, we are likely to gather more credible evidence about the importance of language learning, both within and outside educational settings.

We began this chapter with a simple yes/no question: Are there advantages to being bilingual? Our answer is: Yes. Being able to understand and/or use more than one language is clearly an advantage in a world where more people can do this than cannot. We believe that current evidence, such as that presented in this chapter, equally suggests that being bi/multilingual is likely to have wider (largely beneficial) impacts on other aspects of learning and/or performance. However, what those advantages are precisely, and whether and when they manifest themselves in different types of learners and contexts of learning still requires greater exploration and understanding. Ideally, this work would employ research designs and methods better suited to establishing causal relationships. In this way, we would be able to clearly articulate to educational policy makers and teachers more precisely the ways in which learning other languages can benefit young, developing children. We are optimistic that in pursuing research further we will understand how integral language learning should be in the school curriculum. We believe it would lead to a greater understanding of the impor-
tance of promoting language development in children who come to school with knowledge of more than one language. We also believe that it would enable us to consider more critically, and from an evidential base, why we should be promoting foreign language learning for young children in primary school settings. This should lead to advances in teacher education and support for this important venture.

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## Chapter 9

# Early use of null and overt subjects in L2 Spanish: Evidence from two oral tasks 

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#### Abstract

Recent research has shown that advanced English learners of Spanish can successfully acquire the syntactic, pragmatic and referential properties of null and overt subjects. However, acquiring these structures is problematic at beginner and at intermediate stages of acquisition for these learners. In this study, we investigate the emergence and development of null and overt subjects by 60 English learners of Spanish (20 beginners, 20 intermediate and 20 advanced) in order to understand why these forms are initially difficult to acquire. The oral data for this study were collected using a paired-discussion task and a story retell and are freely available from the SPLLOC project (www.splloc.soton.ac.uk). We argue that the cline of difficulty suggested by Cho \& Slabakova (2014), based on whether L1-L2 form-meaning mismatches require reassembly and whether a dedicated morpheme is available, makes appropriate predictions for these structures. We also argue that the type of task used to elicit the oral data and the overall linguistic and narrative abilities of the learners are also likely to influence the rate of use of these forms.


## 1 Introduction

In Spanish, subjects can be overtly pronounced (1a) or can be null (i.e. not phonetically realised) as in example (1b). Both structures are grammatically correct but they are not felicitous in the same contexts. For instance, the overt pronoun yo 'I' in example (1a) usually marks a change in the referent or topic in the discourse or it can signal that it is the speaker (and not someone else) who is going to go to the theatre (i.e. the subject is in contrast with other possible subjects). These
two pragmatic functions are not available when the subject pronoun is null as in (1b).
(1) a. Yo voy a ir al teatro. I go.pres.1sg to go to.the theatre 'I am going to go to the theatre.'
b. Voy a ir al teatro. go.pres.1sg to go to.the theatre 'I am going to go to the theatre.'

Previous research on the second language acquisition of Spanish subjects has shown that, although English learners find it difficult to use and interpret these forms at the early stages, they eventually acquire them (Pérez-Leroux \& Glass 1999, Liceras \& Díaz 1999, Lozano 2002, 2006, Hertel 2003, Montrul 2004, Montrul \& Rodríguez-Louro 2006, Belletti et al. 2007, Margaza \& Bel 2006, Rothman \& Iverson 2007, Domínguez 2013, Pladevall Ballester 2013, Clements \& Domínguez 2017). The question which remains unresolved is what makes the acquisition of null and overt Spanish subjects a difficult area particularly at the start of the acquisition process.

In this study, we investigate the emergence and development of null and overt subjects in Spanish by three groups of English speakers learning Spanish in an instructed setting in the UK. We focus on the oral production of a group of young beginner (13-14 years old) and intermediate (16-17 years old) learners and compare them with the behaviour of advanced students majoring in Spanish at university level (final-year undergraduate students) and a group of 15 native speakers in Spain of similar ages. Data elicited through oral tasks by young beginner and intermediate groups are scarce in the L2 literature on this topic. The current study aims to fill this gap by analysing oral data elicited by two tasks provided by the Spanish Learner Language Oral Corpora (SPLLOC, www.splloc.soton.ac.uk) (see Mitchell et al. 2008). The datasets have been put together according to principles proposed by Myles (2005) in her pioneering work championing the use of L2 corpora to investigate relevant theoretical questions on L2 development (Myles 2004, 2005, 2007). The results arising from the current study also complement those discussed in Domínguez (2013) on the use of null and overt subjects from the same SPLLOC corpus and students in a semi-spontaneous interview.

In our analysis, we assume that null and overt subjects are constrained by similar discourse-contextual restrictions and thus pose similar processing demands for learners (see Domínguez 2013). Following Slabakova’s (2009) and Cho \& Slabakova's (2014) proposals on what makes a structure more or less difficult
to acquire we argue that, in contrast to some previous research, null and overt subjects are both potentially difficult to acquire as they do not represent straightforward form-meaning mappings which these learners can transfer from English; a second prediction is that overt subjects are, however, likely to initially pose an additional challenge because they require feature reassembly, whereas null subjects do not.

## 2 Spanish subjects

### 2.1 Syntactic properties

Identifying the syntactic principles that regulate the distribution of subjects in languages like Spanish is a very complex issue which has been under debate for decades (see Sheehan 2016 for an overview). For our purposes, it is necessary to understand how exactly the syntax of Spanish subjects differs from English so we can establish the acquisition task required for this structure.

While there is agreement in the field on the status and distribution of English subjects, there is no such consensus for Spanish subjects. Essentially, English subjects are assumed to be generated within the verbal domain (i.e. VP) and then move to the specifier of the Inflectional Phrase (IP) (also known as Tense Phrase $(\mathrm{TP})$ ). The specifier of TP position (i.e. [Spec TP]) is considered an A position (i.e. an Argument position). Movement to this site is justified as a way of satisfying the extended projection principle (EPP) which requires some phrase with nominal features to occupy the Tense position. The EPP requirement has been formalised as a feature, (the so-called EPP feature), encoded in Tense since Chomsky 1995. The agreement phi features (number and person) in Tense are considered to be uninterpretable and they get valued by the interpretable phi features of a pronominal (or full DP) subject (Chomsky 1995, 2000, Holmberg 2005, Sheehan 2016, Roberts 2010, a.o.), which is always overt. That is, the [Spec TP] is a position which always needs to be filled, which results in the obligatory presence of preverbal subjects in English. In Spanish, the situation is different. As mentioned above, subjects can be null (i.e. not phonetically realised) and, when overt, can appear either pre- or post-verbally. The discussions about the factors and views on the morpho-syntactic underpinnings of such distribution have mainly focused on the properties of the agreement morphology, the conceivable lack of an EPP requirement in Tense and the possibility that overt subjects do not even actually sit in the same position as they do in English (i.e. [Spec TP]), when they appear preverbally. Below, we summarise the main perspectives about the availability of null subjects (i) and the position of overt subjects (ii).

### 2.1.1 The status of the null subjects

Some authors (Barbosa 1995, 2009, Alexiadou \& Anagnostopoulou 1998) argue that the rich agreement morphology suffices to satisfy the EPP in T(ense); under this account, a null subject (i.e. pro) is not needed and lexical subjects do not have to be in Spec TP. Others propose that there is a null pro arguably occupying [Spec TP ]. In either case, there are a few new features (or characteristics of features) that an English learner will have to acquire: regulating the movement of the verb to T (instead of the one that results in T lowering to V as it is assumed in English); the potential syntactic consequences of a rich morphology, namely, that they satisfy EPP in T and no movement is syntactically necessary, and maybe the realisation of a null pro.

Example (2) shows how complex the relation between agreement morphology and overt/null subjects can be.
(2) Los lingüistas disfrut-an /disfrut-amos /disfrut-áis con una the linguists enjoy-pres.3pl /enjoy-pres.1pl /enjoy-pres.2pl with a coma.
comma
'The linguists/us linguists/you linguists enjoy a comma.'
In this example, there is a third person plural DP which can co-appear not only with a third person plural agreement form (as usual) but with a first or with second person plural form as well, contrary to expectation (Torrego \& Laka 2015, Villa-García 2018). The lack of agreement between the phi features of the overt DP (los lingüistas) and the morphology shown on the verb in the latter two cases suggests that the DP cannot be the element satisfying all the relevant features in T. That is, the DP cannot check the verbal morphological phi features. One way to account for this is to assume that a null pro (with a set of phi features different from those shown by the DP but agreeing with those shown on the verb) occupies the [Spec TP] position and values the phi features in the verbal agreement. For our purposes, the co-occurrence of a pro with an overt lexical DP suggests that achieving a full command of subject distribution in Spanish entails more than the mastery of pro as a null subject. It cannot be reduced to a dichotomy "overt DP vs pro" since both may occur at the same time.

### 2.1.2 The position of overt subjects

Spanish overt subjects can appear pre- or post-verbally. In order to account for the postverbal position, most authors nowadays assume that subjects are spelled
out in their original position. For example, in cases such as (3a), with un unergative verb, the DP subject is argued to occupy the [Spec vP] position; in contrast, in (3b), with an un-accusative verb, the DP is argued to remain in the position which is known as the "sister" to the verb.
(3) a. Ha llora-do Marta.
has cry-ptcp Marta 'Marta has cried.'
b. Ha llega-do Marta. has arrive-pтср Marta 'Marta has arrived.'

For the preverbal position, there does not seem to be full consensus regarding the exact position the overt DP occupies. While English preverbal subjects are deemed to consistently occupy [Spec TP] (an A-position), some authors have argued that overt preverbal subjects in Spanish occupy a discourse sensitive position, which would be an A-bar (i.e. non-argument) position. In support of this hypothesis, Alexiadou \& Anagnostopoulou (1998) mention that only in null subject languages adverbs can occur between the verb and the subject as shown in the Spanish/French contrast below. The contrast in grammaticality can be accounted for by assuming that subjects in Spanish occupy an A-bar position, higher than [Spec TP].
(4) a. Spanish

Juan ya quier-e ir-se.
Juan already wants-Pres.3sG go=REFL
'Juan wants to leave already.'
b. French

Jean \{*déjà\} veu-t \{déjà\} s'en aller.
Jean already want-pres.3sG already Refl.CL go
'Jean wants to leave already.'
However, it has also been pointed out that it may not be the case that all subjects occupy such an A-bar position. For instance, SVO structures in out of the blue contexts or with wide scope in response to a question such as "What happened?" (see 5), suggest an analysis of overt subjects roughly equivalent to the English position in [Spec TP].
(5) Marta ha comprado un libro.

Marta has bought a book
'Marta has bought a book.'

Goodall (2001) discusses evidence suggesting that not all preverbal subjects in Spanish are actually left dislocated. Examples in (6) from Goodall (2001) show a contrast between an undisputable left dislocated phrase (6a) and a subject (6b). Clauses with fronted topics are islands for extraction and result in ungrammaticality, whereas clauses with preverbal subjects are not. If the subject Juan in (6b) was to be considered to occupy a left dislocated position (instead of [Spec TP]), the contrast would remain unexplained.
a. * A quién cre-es que el premio se lo dieron?
to whom think-PRES.2sG that the prize 3.DAT 3sG.ACC gave
'Who do you think that the prize they gave it to?'
b. A quién cre-es que Juan le dio el premio? to whom think-Pres.2sg that Juan 3sg.dat gave the prize 'Who do you think Juan gave the prize to?'

Villa-García (2018) also concludes that Spanish preverbal subjects may be in TP or above. One of the pieces of evidence he shows is based on bare NPs. These seem disallowed in positions that can be argued to be [Spec TP], as shown in the contrast between (7a) and (7b), but are grammatical in unequivocally topic positions, as shown in (7c). This points to the conclusion that the overt subject in (7b) is in [Spec TP].
a. *Niños juga-ban en la playa.

Kids play-Ipfv.3pl on the beach (intended) 'Kids were playing on the beach.'
b. Los niños juga-ban en la playa. The kids play-IpFV.3pl on the beach 'The kids were playing on the beach.'
c. Niños, no creo que jueg-uen muchos en la playa. Kids not think that play-pres.3pl.subj many on the beach 'As for kids, I do not think many play on the beach.'

This particular issue goes beyond the scope of this paper, but based on these examples and the comprehensive overviews of subject positions in Sheehan (2016) and Villa-García (2018), the evidence for the type of position that overt preverbal subjects occupy in Spanish is mixed and different constructions seem to favour different analyses. It may be the case that not all apparently preverbal subjects are located in the same syntactic position. The important point is that the distribution of overt subjects poses a rather complicated task for an L2 learner of

Spanish whose native language is English. The array of structures available from the input is not uniform and it seems to entail the acquisition of new syntactic features that regulate a complex picture concerning the distribution of subjects. We can conclude that a one-to-one mapping between English and Spanish cannot be established for overt subjects and that this may be a difficulty for learners.

### 2.2 Pragmatic and referential properties of null and overt subjects

The distribution of overt and null subject pronouns is dependent on discoursecontextual factors, mainly to help maintain continuity in the discourse. Generally, overt subjects are preferred in contexts signalling a change of referent, contrast (i.e., contrastive focus) or emphasis (see 8 b ), whereas null subjects are preferred if the subject can be properly identified in the discourse (see 8a) (Luján 1985, 1986, Fernández Soriano 1989, Alonso-Ovalle \& D’Introno 2001).
(8) a. Ayer jugué al tenis con mi hermano. Pro Se enfadó cuando pro perdió. 'Yesterday I played tennis with my brother. (He) got upset when he lost.'
b. Ayer jugué al tenis con Juan y Marta. Ella es muy buena pero él tiene que practicar más.
'Yesterday I played tennis with Juan and Marta. She is very good but he has to practice more.'

Sorace (2000) has proposed that the pragmatic distinction between null and overt subjects can be captured by the [+/- topic shift] feature. In her analysis, overt subjects introduce a new referent in what she refers to a [+ topic shift] context, and thus carry a [+ topic shift] feature. This is, however, not the full picture as native speakers of Spanish have been found to use null subjects to introduce new referents in [+ topic shift] contexts in informal conversations quite often (Silva-Corvalán 2001, Blackwell 2003, Lubbers Quesada \& Blackwell 2009, Liceras et al. 2010, Domínguez 2013, Clements \& Domínguez 2017). Lubbers Quesada \& Blackwell (2009) discuss the complexity surrounding the pragmatic and referential properties of null and overt subjects and conclude that both forms can be used in the same contexts. For instance, in the following example from the SPLLOC project a native speaker of Spanish (NS6) in a conversation with one of the researchers chooses to use a null tú 'you' as a generic or impersonal referent. The null pronoun is used even though this could be considered a [+ topic shift] context: ${ }^{1}$

[^26](9) NS6: Yo cuando llegué aquí pro estaba un poco así solo y tal y entonces con los españoles cuando pro los ves pro te [//] te pro cierras más y te [//] pro se te queda como grupo de amigos. Básicamente pro salimos por ahí también a tomar algo, cenar, pro hacemos excursiones para ver el país. 'When I got here (I) was a bit alone and then with the Spaniards when (you) see them (you) focus on them and (you) are left with a group of friends. Basically, (we) also go out to eat something, have dinner (we) go on trips to explore the country.' (example from Domínguez 2013)

A quantitative analysis of the uses of null and overt subjects reported in Domínguez (2013) reveals that $14.3 \%$ of the null subjects produced by the native Spanish speakers are indeed used in what Sorace would consider to be [+ topic shift] contexts. This corroborates the argument that these forms can be used in both types of pragmatic contexts. Lubbers Quesada \& Blackwell (2009) also suggest that null subjects can be used as epistemic parentheticals, expressions which do not bring the referent into focus. The example below shows null subjects used as epistemic parentheticals by a native Spanish speaker (NS5) as reported by Domínguez (2013):
(10) NS5: sí pro estamos aquí en verano allí pro no sé pro tiene que ser al [//] justo al contrario o no?
'Yes, (we) are here in the summer. Over there (I) don't know (it) has to be just the opposite isn't it?'

Lubbers Quesada \& Blackwell (2009) also argue that overt pronouns are often used even though they are not introducing a new referent. This applies in particular to yo "I", which the authors argue can be used with speech act verbs of claiming, belief, opinion, emotion, or knowledge "to add pragmatic weight to an utterance, to take a firmer stance, to express a greater stake in, or emotional commitment to your assertion or to express that your utterance is highly relevant" (Lubbers Quesada \& Blackwell 2009: 122). This non-referential use of yo was also found in the native data of the SPLLOC corpus Domínguez (2013), shown in the following example:
(11) NS6: bueno yo creo que todos los que estudiamos Historia eh la salida de profesor es una [//] es una opción.
'Well, I think that for all of us who study History-eh-becoming a teacher is an option.'

In this example, the overt pronoun yo is optional. It does not mark a change of referent and thus does not carry a [+ topic shift] feature. Thus, both null and overt subjects can be used to introduce a new referent [+ topic shift] (see details Domínguez 2013 and Clements \& Domínguez 2017). As shown in Table 1, null and overt subjects can be used in both [ $+/-$ topic shift] contexts as well as in in non-referential settings as epistemic parentheticals and to add pragmatic weight.

Table 1: Summary of pragmatic and referential properties of null andvert subjects from (Domínguez 2013)

|  | [+ topic shift] | [- topic shift] | Non-referential |
| :--- | :--- | :--- | :--- |
| Null subjects | Yes | Yes | Epistemic parenthetical <br> (e.g. No sé, digo) |
| Overt subjects | Yes | Yes | Pragmatic weight <br> (e.g. Yo creo) |

In summary, null subjects are subject to similar contextual and pragmatic restrictions as overt subjects and can be used in [+topic shift] contexts, too. Since both null and overt subjects can be used in an array of pragmatic contexts, it is difficult to distinguish between null and overt subjects based on whether they carry a pragmatic feature or not. Consequently, it is also difficult to predict whether learners may find one form more problematic than another based on the pragmatic status of each of the forms (see Clements \& Domínguez 2017).

## 3 Previous research on the acquisition of Spanish null and overt subjects

It is well documented that even though the acquisition of Spanish subject expression is somewhat problematic for some learners, advanced English speakers are able to behave target-like in an array of tests and tasks (Liceras 1988, Phinney 1987, Pérez-Leroux \& Glass 1999, Liceras \& Díaz 1999, Lozano 2002, 2006, Hertel 2003, Montrul 2004, Montrul \& Rodríguez-Louro 2006, Belletti et al. 2007, Rothman \& Iverson 2007, Domínguez 2013, Pladevall Ballester 2013, Clements \& Domínguez 2017). Most of these studies have elicited and analysed comprehension or judgement data. Whether the same results would be obtained from oral data elicited through different task types remains an open question which this study directly addresses.

The first studies investigating the acquisition of null and overt subjects in Spanish were interested in testing whether English speakers could successfully reset the value of the null subject parameter (NSP) (Chomsky 1981, Jaeggli 1982, Jaeggli \& Safir 1989, Rizzi 1982, 1986) to the correct setting (Spanish instantiates the + option whereas English instantiates the - option). These early studies focused on the acquisition of the null pronoun pro as this is the form which is not available in English (see review in Domínguez 2013). Al-Kasey \& Pérez-Leroux (1998) found that English speakers may initially transfer the value of the setting from English to Spanish. According to this evidence, the resetting of the [+] value of the NSP may not be as straightforward as initially argued by authors such as Phinney (1987). Although acquisition of these properties is achievable, it is not without problem, particularly early on in the process. For instance, some of those early studies revealed a tendency to overuse both overt and null subjects (Almoguera \& Lagunas 1993, Díaz \& Liceras 1990). Liceras \& Díaz (1999) show how the Japanese and Chinese (i.e. [+ topic languages]) learners of Spanish in their study overuse null-subject pronouns, and Almoguera \& Lagunas (1993) also report variation in the correct and incorrect use of pro by seven participants. For some of these speakers, the problem was an overproduction of null subjects showing that null subjects can be difficult to acquire as well. Bini (1993) examined the first stages in the acquisition of null and overt subjects in L2 Italian by a group of beginners and a group of low-intermediate Spanish speakers (both Italian and Spanish allow null subjects). Learners initially overuse pronouns during the first six weeks of instruction. Problems shown by an overproduction of null subjects in L2 grammars have in fact been extensively reported in the literature (see Díaz \& Liceras 1990, Liceras et al. 1999, Pérez-Leroux \& Glass 1999, LaFond et al. 2001, Montrul \& Rodríguez-Louro 2006, Rothman \& Iverson 2007, Lubbers Quesada \& Blackwell 2009). Cases of underproduction of null subjects (Lozano 2009) as well as individual variation in their use amongst the least proficient learners (Liceras \& Díaz 1999, Rothman \& Iverson 2007) have been reported, as well. These studies show early problems with the acquisition of null subjects in L2 Spanish.

Pérez-Leroux \& Glass (1999) and Liceras \& Díaz (1999) correctly pointed out that an examination of the acquisition of pragmatic constraints is necessary in order to understand the acquisition of null/overt subjects, as first argued by White (1989) and Liceras (1988, 1989). Liceras \& Díaz (1999) argued that even though the use of null subjects may be in place from early on, their status in interlanguage grammars may not be the same as in native grammars, in particular with regard to the mechanisms that learners employ to identify them (as well as overt pronouns) in discourse (see also Lozano 2002, 2006, Hertel 2003, Montrul 2004, Montrul \& Rodríguez-Louro 2006, Pladevall Ballester 2013). An important body
of literature on this topic has shown that overt subject pronouns especially are more difficult to acquire than null pronouns (see Sorace 2004, 2011) as their realisation depends on features that belong to the syntax/pragmatics interface (based on Sorace's [+ topic shift] feature).

Accordingly, Sorace \& Filiaci (2006) argue that when acquiring overt pronouns learners access inadequate processing resources or "shallow" parsing strategies, which indicates a processing problem that linger even at advanced stages of acquisition (see the "interface hypothesis", Sorace 2011). Crucially, null subjects are spared from these problems as they are purely syntactic phenomena according to these authors (see Belletti et al. 2007). An early study which casts some doubt on this claim was presented by Montrul \& Rodríguez-Louro (2006). These authors examined whether constraints at the syntax-pragmatics interface are intrinsically more difficult for learners for the acquisition of subjects in L2 Spanish. A crucial point of departure from previous research is that these authors assume that a pragmatic deficit can affect the use of null subjects as well. Their findings show an incremental learning of the appropriate discourse properties of both overt and null subjects which is not expected by the interface hypothesis.

More recently, Domínguez (2013) and Clements \& Domínguez (2017) also assume that both null and overt pronouns are subject to similar pragmatic restrictions and that both forms can bear a [+ topic shift] feature as explained in §2. These studies also cast some doubt on the predictions of the interface hypothesis for the acquisition of Spanish pronominal subjects. Domínguez (2013) reports on the oral production of null and overt subjects from the same SPLLOC dataset as in the current study and from the same learners. The data were elicited by means of an interview. Learners show some problems with null subjects that mostly disappear at advanced levels although some learners overproduce and some learners underproduce both forms when compared to native controls. Individual differences were found in the data from the beginner and intermediate groups. Clements \& Domínguez (2017) report on data obtained by a group of 20 advanced English learners of Spanish who completed a picture verification task and a context-matching preference task. The results show that these learners allow null subjects in certain [+ topic shift] contexts and that they show less felicitous judgements affecting the use of both overt and null pronouns in some contexts. These authors speculate about the possibility that performancerelated problems affect the use of null and overt subjects in context. It is possible that pro may be used as a default form by learners in these cases, a phenomenon also attested in the data of monolingual Spanish children (Grinstead 1998, Villa-García 2013). Furthermore, Pladevall Ballester (2013) also reports that English (instructed) advanced learners of Spanish have problems with both null and
overt subjects. She proposes that processing difficulties and the lack of positive evidence available in the input may be the explanation for these findings.

In conclusion, problems with both null and overt subjects have been observed in the data reported for Spanish learners, particularly during the early stages of acquisition, using mostly judgment data as evidence. Investigating what happens at early stages of acquisition and focusing on oral data can be useful to advance our understanding of the nature of this problem.

## 4 The role of input and the cline of difficulty in L2 acquisition

When acquiring the properties of null and overt subjects in Spanish, English speakers need to determine whether a similar form exists in their native grammar (for both null and overt subjects) and whether that specific form has the same properties and distribution. This form-meaning mapping can be explained as a form of feature-reassembly as proposed by Lardiere $(2005,2008,2009)$ and Hwang \& Lardiere (2013). Lardiere assumes that L2 speakers initially transfer their full native grammar and that L2 acquisition involves the mapping of features into the correct functional categories and lexical items. In some cases, and for some properties, this mapping can be done in a straightforward manner but in other cases (as an effect of transfer) a process of feature reassembly is needed. This process entails the effective reconfiguration of L1 syntactic features which do not have the exact same morpholexical expression in the L2. In the case of overt subjects, English learners of Spanish need to figure out that there are key differences in the syntactic properties of overt subjects in these two languages.

Slabakova (2009) acknowledges the role that feature reassembly plays in L2 acquisition but proposes a cline of difficulty of properties dependant on whether the target properties are encoded by a morpheme (these will be easier to acquire) or whether they are fixed by discourse context (more difficult to acquire). Following Ramchand \& Svenonius (2008), she assumes a universal syntax/semantics system that feeds the conceptual-intentional interpretational mechanisms. According to these authors, variation exists regarding whether the features are present in the syntax/semantics or whether they are contextually filled. This is the kind of crosslinguistic variation that is relevant for establishing correct form-meaning mappings during second language acquisition. In cases where a certain feature is not morphologically visible, its meaning can or needs to be recovered by the discourse context. The thrust of Slabakova's proposal (see Cho
\& Slabakova 2014 as well) is that whether features (which exist in both the native and target grammars) are overtly or covertly expressed has to be taken into account alongside feature reassembly. Thus, the two dimensions which are relevant in predicting whether a certain structure will be easy or difficult to acquire are the need for feature reassembly and whether the form is overtly expressed by a dedicated form or not (i.e. the meaning can be assigned by the context). The easiest scenario is one in which there is a one-to-one relationship between certain dedicated functional morphology and its grammatical meaning. This could be the case of overt subjects in Spanish and Catalan which are overtly realised by a dedicated form in both languages, have similar syntactic and distribution properties and do not require reassembly. At the other end, the feature ( F ) associated with specificity and shown in definite articles are covertly expressed by discourse means in languages like English and Russian. This would be a hard property to acquire by speakers of these languages according to the cline of difficulty of Cho \& Slabakova (2014) as shown in Figure 1.


Figure 1: Cline of difficulty of acquisition of features by Cho \& Slabakova (2014) adapted from Slabakova (2009). $\mathrm{F}_{m}=\mathrm{F}_{\text {morpheme }}, \mathrm{F}_{c}=$ $\mathrm{F}_{\text {context }} \cdot \diamond$ : no re-assembly required; $\boldsymbol{\square}$ : re-assembly required

Cho \& Slabakova explain that other variables such as the availability of consistent or inconsistent input can make acquisition of new L1-L2 mappings harder. Slabakova (2013) has also argued that problems with certain structures can be linked to the fact that the input provides evidence for alternate structures with similar frequency, and that this can lead to divergence in L2 grammars. Following Papp $(2000)$, Domínguez \& Arche $(2008,2014)$ also argue that problems acquiring new mappings can persist at advanced levels of acquisition if L2 input is non-robust, parametrically ambiguous or simply not transparent or systematic enough. These authors explain that the type of input available for each structure has to be taken into account as well as learners' sensitivity to the frequency and consistency in which a certain structure appears. In the case of acquiring null and overt subjects in Spanish, these are forms that are abundant in the input but less experienced learners may not have had access to all of the scenarios in which a null and an overt subject pronoun can be used in Spanish. It is also possible that the type of evidence needed may not be obvious in the input. Since
the input has evidence of both null and overt pronouns being grammatical in the same position, it is possible to assume that figuring out in which exact context each of these two forms can be used will take some time. According to these observations, it is very likely that learning when to use null and overt subjects in an L2 when these forms are not available in a speaker's native language will be a gradual process which takes time and requires sufficient exposure to the right evidence in the input.

If we take into account the role of feature reassembly in modulating L1-L2 mappings, the role of the input and whether the L1 and L2 express the same structure with a dedicated morphological expression or not, we can predict that both null and overt subjects in Spanish would be somewhat problematic for English speakers but, nevertheless, would not constitute a particularly hard property to be acquired. A second prediction is that overt subjects may take longer to be used properly since they require reassembly (overt subjects also exist in English but with different syntactic characteristics). Null subjects do not require reassembly since there is no form in English which overtly expresses the syntactic features associated with pro. Crucially, we predict problems at the early stages of acquisition where reassembly is starting to take place and when learners have not had abundant exposure to input.

## 5 The current study

In the current study, we examine the emergence and development of null and overt subjects in the oral data of three groups of L2 Spanish speakers ( 60 in total) taking into account that both forms can be used in contexts where there is a switch in reference if this is salient enough. The data are part of the Spanish Learner Language Oral Corpora (SPLLOC) project (www.splloc.soton.ac.uk) and are freely available to the research community to investigate the acquisition of Spanish morphosyntactic properties by three groups of English learners in the UK. The whole database contains a total of 333,491 words ( 269,262 from learners and 64,229 from native speakers) and a total of 561 digital audio files (461 from learners and 100 from native speakers). Details on the rationale and principles for the design of the corpus can be found in Mitchell et al. (2008). The recordings were transcribed using CHAT conventions and analyses were carried out using the CLAN software suite (MacWhinney 1991, 2000). The analysis below was based on those transcripts that had been POS-tagged by means of the Spanish MOR and POST programs. MOR adds a \%mor tier to provide a complete part-of-speech tagging for every word in the transcript so that researchers can carry out morohosyntactic analyses on the data. In the current study, we analysed the data elicited by a story retell and a paired-discussion task.

### 5.1 Participants

The participants were 60 native speakers of English learning Spanish in a school or university in the UK. In order to track the first uses of the target forms, we analysed the data from a group of 20 beginners (13-14 years of age) which at the time of testing were in Year 9 of the UK school system (third year into their secondary school education) and had received around 180 hours of instruction. 20 intermediate students were in Year 13 (the last year of school before university) at the time that the data were collected (ages 17-18). The SPLLOC website shows the accumulative hours of instruction as around 750 for this group. Finally, a group of 20 final-year undergraduate students majoring in Spanish are part of the advanced group (ages 21-22) which had around 895 hours of instruction. The three groups are meant to represent three key stages in the acquisition of a second language in an instructed setting.

The control group was formed by 15 native speakers from Spain of similar ages as the three learner groups. These participants were mainly in Madrid and Alicante when the data were collected although a small number were in Southampton (UK) as they had just arrived in the UK to participate in a period of study abroad.

Only participants who had started learning Spanish in Year 7 (around 11 years of age) and who had declared Spanish as their main foreign language were included in the study. Even though all of the native speakers had had some exposure to English through schooling, none of them considered themselves to be bilingual Spanish-English speakers.

### 5.2 Tasks

### 5.2.1 The story-retell task

The story-retell was based on a series of pictures depicting a story in which a family (mum, grandma and three children) go on holiday in Scotland. The story is named the "Loch Ness" story because the characters think that they can see the Loch Ness monster only to find out that grandma had painted some car tyres to make them look like the monster. The last picture depicts the family going into the house and the real monster swimming in the lake. The story had been used successfully in the French Learner Language Oral Corpora (FLLOC www.flloc.soton.ac.uk), a sister site to SPLLOC with the same design principles. Overall, there were 12 colour pictures which clearly depicted the story that participants had to tell. These pictures were chosen with the younger participants in mind and were meant to show a story simple enough that this group of learners could describe. To aid the Year 9 and Year 13 participants (Y9 and Y13 from here
on), a member of the research team read a script of the story in Spanish and had access to a list of main vocabulary words if they needed them. The script was read whilst the learners looked at the pictures to ensure that they had understood the story and had something to say. The task was piloted with native controls and learners of the same proficiencies to ensure that all of the participants would be able to complete the task as planned. Figure 2 shows the first and last pictures of the story that the participants saw.


Figure 2: Two pictures used in the "Loch Ness" task. Illustrations by Alex Brychta for A Monster Mistake by Roderick Hunt (Oxford Reading Tree 2003) used by permission of Oxford University Press.

### 5.2.2 The paired-discussion task

This task was modelled after a similar task used by Dippold (2006). Each participant was presented with a topic which was chosen by the research team for their likelihood to generate discussion (e.g. What can be done to help the environment? How can we help eradicate street violence? etc). Each topic was followed by four propositions of actions that could help solve each of the problems which each participant was asked to rank in order of preference. Participants were also asked to suggest one more solution or proposal to address the issue being discussed. In this task, each participant was paired with another participant from the same proficiency group. Each participant had to defend their ranking of propositions, and both had to work together to agree on a ranking. Only the intermediate group was provided with the translations of key vocabulary items to aid their discussions. This task was designed to offer a high probability of oral productions between the pairs. Due to the demands of this kind of task, in which learners are required to construct and defend an argument in real time, the beginner group was not asked to participate.

## 6 Results

In this section, we report the results of the production of null and overt subjects (both pronouns and full DPs) by the four groups of participants. The average and median for each form was calculated for both tasks and for each individual task. We first report the combined results for both tasks together. Overall, we see that the number of null and overt subjects increases with proficiency and that the advanced undergraduate group (UG) perform like the controls (N). Table 2 shows the means of use of null subjects for all the participant groups. The Y9 participants use very few null subjects (mean 2.0) when compared with the controls (mean 18.0). ${ }^{2}$

Table 2: Means of use of null subjects (both tasks)

| Group | Mean | Conf. level | Trad. lower | Trad. upper |
| :--- | ---: | ---: | ---: | ---: |
| N | 18.0 | 0.95 | 13.100 | 23.00 |
| UG | 18.2 | 0.95 | 13.700 | 22.60 |
| Y13 | 8.1 | 0.95 | 6.210 | 9.99 |
| Y9 | 2.0 | 0.95 | 0.814 | 3.19 |

Table 3: Means of use of overt subjects (both tasks)

| Group | Mean | Conf. level | Trad. lower | Trad. upper |
| :--- | ---: | ---: | ---: | ---: |
| N | 19.10 | 0.95 | 16.5 | 21.8 |
| UG | 17.20 | 0.95 | 14.8 | 19.6 |
| Y13 | 9.48 | 0.95 | 7.7 | 11.2 |
| Y9 | 8.90 | 0.95 | 7.1 | 10.7 |

Table 3 shows the means of use of overt subjects. Again, we see a difference in use between the native controls and the advanced group on the one hand and the beginner and intermediate groups on the other. The Y9 participants clearly use more overt subjects than null subjects.

The use of null and overt subjects for all the groups is shown in Figures 3 and 4. These figures clearly show that the use of these two forms increases with proficiency and that the advanced speakers show similar rates of use as the controls.

[^27]The beginner and intermediate groups show lower use of both forms, particularly for null subjects.

For the null subject results, an independent in-between groups ANOVA yielded a statistically significant effect $(F(3,123)=15.82, p<0.001)$. Tukey multiple comparisons of means at $95 \%$ confidence level revealed that the only two comparisons which were not statistically significant were between Natives $(\mathrm{N})$ and the advanced group (UG) and between Y13 and Y9 learners (see Table 4). This confirms that the advanced speakers' performance was indistinguishable from that of the controls and that any problems that learners experience using null subjects early on can persist after years of instruction but can be ultimately overcome.

Table 4: Results of the Tukey multiple comparisons (null subjects)

| Group | diff | lwr | upr | p adj |
| :--- | ---: | ---: | ---: | ---: |
| UG-N | 0.1504762 | -6.673095 | 6.974048 | 0.9999316 |
| Y13-N | -9.9400000 | -16.826930 | -3.053070 | 0.0014794 |
| Y9-N | -16.0400000 | -24.143829 | -7.936171 | 0.0000058 |
| Y13-UG | -10.0904762 | -16.058373 | -4.122580 | 0.0001332 |
| Y9-UG | -16.1904762 | -23.529279 | -8.851674 | 0.0000004 |
| Y9-Y13 | -6.1000000 | -13.497750 | 1.297750 | 0.1440460 |

Table 5: Results of the Tukey multiple comparisons (overt subjects)

| Group | diff | lwr | upr | p adj |
| :--- | ---: | ---: | ---: | ---: |
| UG-N | -1.929524 | -6.060342 | 2.201294 | 0.6175541 |
| Y13-N | -9.645000 | -13.814174 | -5.475826 | 0.0000001 |
| Y9-N | -10.220000 | -15.125853 | -5.314147 | 0.0000017 |
| Y13-UG | -7.715476 | -11.328290 | -4.102662 | 0.0000009 |
| Y9-UG | -8.290476 | -12.733202 | -3.847751 | 0.0000206 |
| Y9-Y13 | -0.575000 | -5.053411 | 3.903411 | 0.9870526 |

For overt subjects, the independent in-between groups ANOVA also yielded a statistically significant effect $(F(3,123)=20.45, p<0.001)$. Tukey multiple comparisons of means at $95 \%$ confidence level also revealed the UG-Native comparison and the Y9-Y13 comparison to not be statistically significant as shown in Table 5.


Figure 3: Null subjects for each participant group (both tasks)


Figure 4: Overt subjects for each participant group (both tasks)

These results suggest that both null and overt subjects are equally problematic for the beginner and intermediate groups and that targetlike use is ultimately achievable.

The next two tables show the results for each of the two tasks separately (see Table 6 for null subjects and Table 7 for overt subjects).

Table 6: Mean use of Null Subjects

| Group | Loch Ness | Paired-discussion |
| :--- | ---: | ---: |
| N | 11.7 | 27.6 |
| UG | 9.9 | 25.7 |
| Y13 | 5.5 | 10.7 |
| Y9 | 2.0 | - |

Table 7: Mean use of Overt Subjects

| Group | Loch Ness | Paired-discussion |
| :--- | ---: | ---: |
| N | 19.6 | 18.40 |
| UG | 20.1 | 14.50 |
| Y13 | 13.8 | 5.15 |
| Y9 | 8.9 | - |

Overall, we see that the paired-discussion task elicited more null subjects than the Loch Ness task for all groups which indicates that the type of oral task used to investigate this property can have an effect on the results obtained.

### 6.1 Loch Ness task

Figures 5 and 6 show the use of null and overt subjects for all the participant groups in this task. The Y9 learners show low production of both target forms, particularly of null subjects. The rates of use of both forms for the advanced group is similar to that found for the controls.

In this task, five Y9 speakers did not produce any null subjects and seven only produced one null subject. In contrast, this is the group in which we find the highest rate of use of null subjects by one single participant (10 instances which is $77 \%$ of all of the preverbal subjects they used). This shows that there is variability of use of null subjects at this early stage.

Null subjects by groups. Loch Ness task.


Figure 5: Null subjects for each participant group (Loch Ness task)

Overt subjects by groups. Loch Ness task.


Figure 6: Overt subjects for each participant group (Loch Ness task)

We analysed the use of overt subjects in this task to investigate whether participants preferred to use a pronoun or a full DP. The Y9 speakers did not produce any pronouns and only $0.2 \%$ of the overt subjects produced by the Y13 group was a pronoun. This rate of use is $0.5 \%$ for the UG group and $0.6 \%$ for the controls. This indicates that these two tasks did not elicit high rates of pronominal subjects. This could be explained by the nature of the task as participants based their productions on what was depicted on a series of pictures. It was easy for the participants to move from picture to picture, introducing the third person subject in each picture as a new referent (which does not require the use of a pronoun).

An independent in-between groups ANOVA yielded a statistically significant effect for both null subjects $(F(3,71)=21.77, p<0.001)$ and overt subjects $(F(3,71)=25.79, p<0.001)$. Tukey multiple comparisons of means at $95 \%$ confidence level reveal no significant differences between UG and the native controls. On the other hand, Y9 and Y13 learners have a significantly different pattern of use of both null and overt subjects when compared to the advanced learners and the native controls. Y9 and Y13 are significantly different, too. These results are shown in Table 8 (null subjects) and Table 9 (overt subjects).

Table 8: Results of the Tukey multiple comparisons (null subjects)

| Group | diff | lwr | upr | p adj |
| :--- | ---: | ---: | ---: | ---: |
| UG-N | -1.766667 | -5.351916 | 1.8185825 | 0.5682405 |
| Y13-N | -6.166667 | -9.751916 | -2.5814175 | 0.0001369 |
| Y9-N | -9.666667 | -13.251916 | -6.0814175 | 0.0000000 |
| Y13-UG | -4.400000 | -7.719296 | -1.0807042 | 0.0045702 |
| Y9-UG | -7.900000 | -11.219296 | -4.5807042 | 0.0000002 |
| Y9-Y13 | -3.500000 | -6.819296 | -0.1807042 | 0.0348375 |

Table 9: Results of the Tukey multiple comparisons (overt subjects)

| Group | diff | lwr | upr | p adj |
| :--- | ---: | ---: | ---: | ---: |
| UG-N | 0.5 | -3.589519 | 4.589519 | 0.9883962 |
| Y13-N | -5.8 | -9.889519 | -1.710481 | 0.0021115 |
| Y9-N | -10.7 | -14.789519 | -6.610481 | 0.0000000 |
| Y13-UG | -6.3 | -10.086159 | -2.513841 | 0.0002329 |
| Y9-UG | -11.2 | -14.986159 | -7.413841 | 0.0000000 |
| Y9-Y13 | -4.9 | -8.686159 | -1.113841 | 0.0058873 |

Next, we show a few samples of the oral productions from the corpus. The next three examples illustrate how three different Y9 learners (L1, L11 and L16) told the same part of the story using different amounts of null subjects. Participant L1 was able to use three null subjects (as indicated by pro) and participant L11 produced two. In contrast, participant L16 did not produce any null subject pronouns. L1 and L11 are able to produce some null subjects as they produced at least two sentences to describe the actions carried out by the same subject.
(12) L1: Hay mucha gente um [/] um al lado del lajo de Loch Ness y pro miran el monstruo. Hay mucho fotos y um [/] um pro hacen fotos um pro pensan que el monstruo es verdad.
'There are many people, ehm ehm next to the Loch Ness and (they) look for the monster. There are many pictures and ehm ehm (they) take pictures and (they) think that the monster is real.'
(13) L11: Muchos personas ven eh [/] eh mucha yente pro ven eh [^ eng: I don't know] el monstruo y pro está en el tele eh. Un periodisto eh habla con la abuela y pro es en la tele xxx de verdad monstruo está en el lago. 'Many people see ehm ehm many people see eh [^ eng: I don't know] the monster and (it) is on tv eh. A journalist eh talks to the grandmother and (she) is on tv. Really, the monster is in the lake.'
(14) L16: Eh mucho periodista y eh mucho fotos y eh periodista hace fotos. Eh un chica y un chico eh parecer un Loch Ness monster. Eh un chico [//] no dos chicos y un chica eh un [/] un tele, Loch Ness Monster. eh [/] eh [/] eh abuela ehm nadan no Loch Ness monster [^ eng: it wasn't real] ehm [/] ehm periodista qui qui eh [/] eh un familia gone en un casa. 'Eh many journalists and eh many pictures and eh journalist take pictures. Eh a girl and a boy eh look like the Loch Ness monster. Eh a boy, no, two boys and one girl eh a tv, Loch Ness monster. Eh eh eh the grandmother eh swim, no Loch Ness monster [^ eng: it wasn't real]. Ehm Ehm journalist who who eh eh a family gone in a house.'

Participant L16 seems to avoid the use of null subjects by continuously introducing a new referent (in the form of a full DP) in every sentence. In contrast, example (15) shows data from one of the intermediate learners (L50) who manages to produce a null subject by using a subordinate clause with the same subject as the main clause:
(15) L50: por la tarde muchas turistas y visitantes vienen ver el monstruo. Muchos [//] muchas de las personas sacar muchos fotos ehm porque pro pienso que el mons(truo) [//] el monstruo es real. Ehm los niños mira el monstruo en la tele. La abuelar ehm hablar con unar personar <der la> [/] de la televisión sobre ehm que el monstruo no es de verdad.
'In the afternoon many tourists and visitors come see the monster. Many many of the people take many pictures eh because (they) think that the monster is real. Ehm the children see the monster on tv. The grandmother ehm speaks with a person from tv about ehm the monster is not real.'

In the subordinate clause a null subject is preferred as there is no switch of referent from the referent introduced by the main clause. This learner produces the null pronoun because they are able to produce a complex structure which requires the subject to be null. The Y9 learners are not able to orally produce structures with such complexity which, in turn, reduces the chance of using a null subject in this task. Nevertheless, in this example we also see the same learner using shorter and simpler sentences to describe the actions in the pictures. This is a clear example of the mixed nature of the oral productions of learners at this intermediate level of proficiency. For comparison, example (16) shows how an advanced undergraduate student (L70) told the same part of the story using six null subjects:
(16) L70: después por eso ehm llegan muchos periodistas y ehm muchas personas que pro tienen sorpresa> [//] que pro están sorprendientes de [/] de lo que ha pasado y eh ahí pro están y pro sacan muchísimas fotos ehm y [/] y pro sí ven [/] eh pro ven el monstruo en el lago ehm y por la noche o por la tarde las [//] los niños están en la casa y pro dicen ven [/] ven allí está el monstruo en [/] en el lago.
'After that ehm many journalists arrive and ehm many people (who) are surprised, (who) are surprised of what has happened and eh there (they) are and (they) take lots of pictures ehm and (they) do see the monster, (they) see the monster in the lake ehm and at night or in the evening the children are at home and (they) say come, come there is the monster in the lake.'

Participant L70 has used a null pronoun every time that the subject was not introducing a new referent. This is possible as the learner goes on to describe what a character does after they have been introduced in the discourse. This is a strategy which the less proficient learners hardly ever used, as we saw in
examples (12), (13) and (14) and which reduced the contexts in which pro would be preferred. In this respect, the type of task seems to have conditioned the use of null subjects especially for the beginner learners.

### 6.2 Paired-discussion task

This is the task that elicited the highest rate of null subjects for all groups. Data from the Y9 group are not available as this task was deemed too difficult for them to complete. Figures 7 and 8 show the use of null and overt subjects for the two learner groups and the controls. The Y13 learners show a lower rate of production of both forms, but particularly of null subjects, compared to the other two groups. Both forms are used at a similar rate for the control and advanced groups.

An independent in-between groups ANOVA yielded a statistically significant effect for both null subjects $(F(2,49)=9.644, p<0.001)$ and overt subjects $(F(2,49)=15.83, p<0.001)$. Tukey multiple comparisons of means at $95 \%$ confidence level reveal no significant differences except for the UG-Native control comparison for both null and overt subjects (see Table 10 for null subjects and Table 11 for overt subjects).

Table 10: Null subjects

| Group | diff | lwr | upr | p adj |
| :--- | ---: | ---: | ---: | ---: |
| UG-N | -1.872727 | -13.41503 | 9.669580 | 0.9188738 |
| Y13-N | -16.900000 | -28.62127 | -5.178731 | 0.0029598 |
| Y13-UG | -15.027273 | -24.37761 | -5.676935 | 0.0008842 |

Table 11: Overt subjects

| Group | diff | lwr | upr | p adj |
| :--- | ---: | ---: | ---: | ---: |
| UG-N | -3.854545 | -10.16763 | 2.458537 | 0.3112893 |
| V13-N | -13.250000 | -19.66097 | -6.839034 | 0.0000232 |
| Y13-UG | -9.395455 | -14.50964 | -4.281273 | 0.0001492 |

Null subjects by groups. Pair Discussion task.


Figure 7: Null subjects for each participant group (paired-discussion task)

Overt subjects by groups. Pair Discussion task.


Figure 8: Overt subjects for each participant group (paired-discussion task)

Example (17) shows an exchange between two intermediate learners (D56 and D51) discussing some reasons why learning a foreign language is useful. Both learners show use of null pronouns. Learner D56 uses pro with pienso ('I think') and with es importante ('it is important') which in English requires a pleonastic it. Participant D51 shows various uses of the null subject form as shown in this example as well. It is clear that the structures this learner has chosen have the level of complexity which is appropriate for eliciting null pronouns, for instance by using subordinate clauses in which the subject is the same as in the main clause and does not need to be repeated.
(17) D56: eh para mí ehm lo más importante es para poder ir a otro país y poder comunicarnos con los habitantes de allá [/] de allá porque pro pienso que pro es importante hablar con los extranjeros en su lengua. 'For me ehm the most important thing is to be able to go to another country and be able to communicate with the speakers there because (I) think that (it) is important to speak to foreigners in their language.'

D51: Sí pro tienes razón porque cuando pro visito un otro país pro lo odio cuando <los eh> [/] <los eh> [//] las turistas hablan más alto y eh más claro pero en su lengua eh normal con [//] como inglés porque pro piensan que es eh los extranjeros ehm conocerían los [//] conocerían. 'Yes, you are right because when (I) visit another country (I) hate it when the tourists speak louder and clearer but in their own language like English because they think that the foreigners would know it.'

In this task, a large number of sentences contain the first person singular pronoun ( $y o$ ) as the participants were giving their own reasons for defending their ranking of solutions to the problems. In contrast, most of the subjects elicited by the Loch Ness task were third person which may be a factor for explaining the lower use of null subjects produced by all the groups in that task. We discuss the implications of this distinction in §7.

## 7 Discussion

In this study, we have investigated the acquisition of Spanish null and overt subjects by three groups of English learners at beginner, intermediate and advanced proficiency levels. We examined the acquisition of these structures using oral production data as evidence, which have not been properly investigated in previous studies on this topic. Overall, our findings are in line with existing research
(mostly using comprehension/judgment data as evidence) which has shown that this is an area of Spanish which English speakers are able to acquire by the time they reach an advanced level of proficiency (Pérez-Leroux \& Glass 1999, Liceras \& Díaz 1999, Lozano 2002, 2006, Hertel 2003, Montrul 2004, Montrul \& RodríguezLouro 2006, Belletti et al. 2007, Rothman \& Iverson 2007, Domínguez 2013, Pladevall Ballester 2013). The oral data we have discussed clearly show an increase of use of both forms relative to proficiency and experience and towards target-like use.

Since both null and overt subjects show similar levels of pragmatic complexity, we predicted that these two forms would pose the same processing demands to these learners. According to this assumption, null subjects could potentially be difficult to acquire, particularly at early stages of acquisition. Following Cho \& Slabakova (2014), we made two further predictions: that null and overt subjects would be ultimately acquired, and that overt subjects may be more difficult to acquire than null subjects as this is a structure which requires reassembly for English speakers.

Our first prediction was born out as beginner and intermediate learners consistently behaved differently to the advanced group for the use of both forms. We found no evidence in any of our analyses to suggest that null subjects are problem-free. In this sense, the analysis of these oral data complements comprehension data reported by previous research which also found null subjects to be somewhat difficult to acquire by English speakers (Montrul \& Rodríguez-Louro 2006, Domínguez 2013, Pladevall Ballester 2013, Clements \& Domínguez 2017). Our second prediction was also born out as advanced speakers behaved like the native controls in all of the tests which suggests that the advanced learners are able to master how to use these forms appropriately in different tasks. This finding supports Cho \& Slabakova (2014)'s assumption that whether the L1 and the L2 use similar morphological means to express a particular feature or structure (as opposed to context) is relevant for the acquisition task.

The third prediction, however, was not completely supported. Since overt subjects require reassembly of existing form-meaning pairs, we predicted that learners may have more problems acquiring overt subjects than null subjects for this reason. The results we discussed for the two oral tasks revealed that although beginner and intermediate learners used both overt and null subjects at a lower rate than the controls, the intermediate group used overt subjects at a higher rate than null subjects in the paired-discussion task. That is, their rates of use of subjects were closer to the target for this form. It may be the case that the oral data that we have analysed are not able to provide us with the crucial evidence needed to conclude whether overt subjects are indeed more problematic as we
are not able to see, for instance, whether the learners would accept these forms in inappropriate contexts.

Crucially, the data show that although learners are aware that null subjects are available in Spanish, their use in oral production is sparse and does not show target-like levels until learners reach advanced levels of proficiency in Spanish. This is puzzling since, as Rothman \& Iverson (2007) points out, the trigger for learning the underlying structure (or resetting the NSP parameter in Rothman's study) is salient and frequent. Pladevall Ballester (2013) concludes, after analysing advanced learners' justifications for the choices in a contextualised judgment task, that instruction seems to have a positive effect on the acquisition of the syntactic properties of Spanish null subjects but not for their distribution and use in context. In the case of our participants, it is also possible that linking pro to an existing referent in the discourse is a harder task in an oral production task in which learners, especially the least experienced ones, may feel more under pressure than when completing a written task.

To further investigate this possibility, the preliminary qualitative analysis we conducted on the data showed important differences in the overall ability to successfully communicate orally across the groups. We argue that the low production of null subjects observed for the beginner learners may be (partially) due to their limited knowledge of the type of complex structures which require the use of a null subject, such as a subordinate clause which adds extra information about a subject referent previously introduced in the discourse. Some of the intermediate learners are starting to use some of these more complex structures and are also able to provide more details to describe what the characters in the Loch Ness story were doing. Using coordinating sentences to describe a character's actions would elicit null subjects, a strategy which is rare for the beginner group. We see some of these examples in the data of some intermediate learners, but it is not until later on in the acquisition process that its use is widespread. Thus, it is likely that the overall linguistic ability and capability for oral communication of the learners also play a role in the rate of production of the forms we are investigating.

These results support the view that type of task used to elicit the data seems to be a very important factor when investigating the use of target forms in oral production (see Tracy-Ventura \& Myles 2015, Domínguez 2019). In our results, the native controls' use of null and overt subjects varied according to the task. This was also the case for all the learners. The paired-discussion task elicited more null subjects than the Loch Ness task, perhaps because the referent used in this task was often the speakers themselves. It is easy to assume that sentences with first person pronouns yo ' I ' would not often require an overt subject in

Spanish. In contrast, most of the subjects in the Loch Ness task were third person as participants had to describe the actions carried out by fictional characters. The participants may have used more overt subjects in this task as there were more opportunities to introduce new referents in every scene. We leave it to further research to clarify the effect of the type of referent (first vs third person) for the elicitation of null subjects.

It is interesting to point out that similar data discussed in Domínguez (2013) for the same forms and for the same group of learners also corroborates the finding that the type of task can influence the rate of use of null and overt subjects in oral tasks. This study describes the results of the data elicited using a semispontaneous interview with one of the investigators. In this task, which is the least constrained in terms of giving participants the freedom to discuss topics they were happy with, the native speakers used null subjects at a high rate (71\%) when compared to the $29.4 \%$ rate of use of overt subjects. This is the task which elicited the highest number of null subjects for all groups ( $74 \%$ for Y9, $71 \%$ for Y13 and UG). This is also the task in which participants chose to speak mostly about themselves (same referent which is salient in the discourse), so many of the subjects produced were used in [-topic shift] contexts, the context in which pro is more likely to be used. When the participants used an overt pronoun, yo was the preferred choice as shown in Table 12.

Table 12: Average use of pronouns (from Domínguez 2013)

|  | Yo 'I' (\%) | El/Ella 'he/she' (\%) | Other (\%) |
| :--- | :---: | :---: | :---: |
| Y9 | 83.3 | 16.6 | 0.0 |
| Y13 | 77.0 | 22.9 | 0.0 |
| UG | 61.3 | 34.9 | 3.7 |
| NS | 83.5 | 10.0 | 6.4 |

Lozano (2009) reports overproduction and underproduction of third person animate singular pronoun (él/ella 'he/she') in a written corpus of L2 Spanish. The interesting result in this study is that the third person pronoun was the only pronoun that was problematic for learners: some learners used this overt pronoun redundantly in [-topic shift] contexts, while other learners used a null pronoun when an overt third person pronoun would be pragmatically felicitous. ${ }^{3}$

[^28]Altogether, this seems to suggest that when learners have to describe actions carried out by a third person referent, they may find it harder to produce the correct form (null and overt). Since the Loch Ness task was the task with the highest number of third person referents, the lower use of null pronouns could be explained by the demands of the task on the less proficient learners.

Overall, the results of the oral data analysed in this study corroborate some of the previous findings using other methodologies: that overt and null subjects can be acquired in Spanish, but that their acquisition is not completely problem free. The analysis of the oral data has also shown that the type of task and the low proficiency of some of the learners may be obstacles to producing null subjects. We conclude by pointing out the benefits of using L2 oral data to investigate the acquisition of morphosyntactic phenomena and to test predictions which are theoretically inspired. This is very much in the spirit of Myles's pioneering work promoting the use of L2 corpora in SLA research (Myles 2004, 2005, Domínguez et al. 2013).

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## Chapter 10

## Post scriptum

Roger Hawkins

University of Essex

La connaissance des langues est la porte de la sagesse. - Roger Bacon (13 ${ }^{\text {th }} \mathrm{c}$.)
Approaches to studying how people learn to speak more than one language, whether simultaneously from birth or sequentially (learning one or more "foreign" languages after a single mother tongue has been established), have always been diverse. Some researchers have focused on the nature of the linguistic knowledge involved, some on the psychological concomitants of language knowledge (like processing in real time or interactions between linguistic and non-linguistic cognition), some on the social settings in which languages are learned, and yet others on the effects of different kinds of input on learning outcomes.

The work of Florence Myles shows a remarkable openness to this diversity of approach. In contrast to some of her fellow researchers who show a certain tunnel vision in pursuing their own corner of the field, Florence actively seeks answers through interdisciplinary investigation. Her book with colleagues Ros Mitchell and Emma Marsden, Second language learning theories, bears witness to this openness to different perspectives, an openness clearly appreciated by its readers, given that the book is now in its fourth edition. But it is also in some of the roles that Florence has taken on during her career that we get a sense of her commitment to interdisciplinarity as a route to understanding bilingualism/ second language acquisition. She was instrumental in creating the Multidisciplinary Centre for Research in Linguistics and Language Sciences at Newcastle University. She was the driving force behind, and founding director of, the Centre for Research in Language Development Throughout the Lifespan at

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## Roger Hawkins

Essex University. She has been president of the European Second Language Association, a body that embraces diversity in approaches to the study of second languages. And most recently she was the founding Chair of the Research in Primary Languages Network, bringing together researchers and language teachers to find practical solutions to the challenge of teaching foreign languages to children of primary school age.

The present volume is a fitting tribute to Florence's work over more than three decades to increase our understanding of what it means to know more than one language, presenting as it does original studies of teaching methods used in instructed language learning settings, aspects of learner language and the role of social and personal factors in learning.

If knowledge of languages is the door to wisdom, as Bacon proposed, Florence's work has shone a particular light on that portal. She has inspired researchers and teachers alike to look more closely at the factors involved in learning other languages and she has put in place structures that will foster collaborative work and greater understanding far into the future.

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## How special are early birds?

This volume honours the academic achievements and scholarship of Professor Florence Myles as a world-leading scholar in the fields of Second Language Acquisition (SLA) and French Linguistics, in particular for her work in corpus-based SLA and language policy in primary school education. In addition to reviews of the field (e.g., primary languages policy in the UK), the volume presents new research studies reflective of key theoretical and methodological issues in current SLA research, including theory-building, corpusbased investigations, studies of language development, as well as informing teacher professional development through research. Taken together, this edited book provides a wide-ranging and balanced account of Myles's work and speaks to her influence on SLA research and primary languages policy. We invite readers to learn more about the fascinating research presented here as inspired by Florence's dedication to field.


[^0]:    ${ }^{1}$ http://www.flloc.soton.ac.uk

[^1]:    ${ }^{2}$ http://www.splloc.soton.ac.uk
    ${ }^{3}$ https://ripl.uk/

[^2]:    ${ }^{4}$ http://www.splloc.soton.ac.uk

[^3]:    ${ }^{1}$ For international readers who may be less familiar with the organisation of schools in England and Wales, it may be helpful to explain in advance some of the terminology that will be used in our discussions. Maintained schools in England and Wales follow a national curriculum that is divided into key stages. These are legal terms that describe blocks of years that relate to the children's age: key stage 1 refers to the period of two years of schooling (Years 1 and 2) when children are aged between five and seven; key stage 2 refers to the period of four years (Years $3,4,5$ and 6 ) when children are aged between seven and eleven; key stage 3 refers to the period of three years (Years 7, 8 and 9) when pupils are between eleven and fourteen; and key stage 4 refers to the two years of schooling (Years 10 and 11) leading up to GCSE and other public examinations, when pupils are aged between fourteen and sixteen. Key stages 1 and 2 constitute primary/elementary education; key stages 3 and 4 refer to secondary education. Readers should bear in mind that Wales, Northern Ireland and Scotland are now devolved administrations responsible for their own national curricula and hence modern language provision. All three administrations have their own priorities which differ to some extent from those in England, in particular with regard to indigenous languages, Welsh, Irish, Scots and Gaelic.
    ${ }^{2}$ The Department for Education (DfE) is her Majesty's government department for child protection, education, apprenticeships and wider skills. It has been named variously at different periods of time, including the Department for Education and Employment (DfEE), the Department for Education and Skills (DfES) and the Department for Children, Schools and Families (DCSF).

[^4]:    ${ }^{a} \mathrm{~T}$ and child combined

[^5]:    Alison Porter \& Suzanne Graham. 2022. Research in primary languages: Contribution to teacher professional development. In Kevin McManus \& Monika S. Schmid (eds.), How special are early birds?: Foreign language teaching and learning, 63-92. Berlin: Language Science Press. DOI: 10.5281/zenodo. 6811462
    @

[^6]:    ${ }^{1}$ We have adapted Laurillard's (2012) framework labels from "teacher" to "instructor" to distinguish between MOOC educators (instructors) and our participants who were teachers/teacher educators.

[^7]:    ${ }^{2}$ https://www.futurelearn.com

[^8]:    Rowena Kasprowicz, Karen Roehr-Brackin \& Gee Macrory. 2022. Metalinguistic awareness in early foreign language learning. In Kevin McManus \& Monika S. Schmid (eds.), How special are early birds?: Foreign language teaching and learning, 93-117. Berlin: Language Science Press. DOI: 10.5281/zenodo. 6811464 @ ©

[^9]:    ${ }^{1}$ Years 3 to 6 of primary education in England.

[^10]:    ${ }^{2}$ Graham et al.'s (2017) longitudinal study of learners of French in the transition between primary (years 5 and 6) and secondary (year 7) highlights the importance of "teachers with sufficient pedagogical and linguistic expertise" (2017: 954).

[^11]:    ${ }^{3}$ McLelland (2018: 8) also mentions that "Spanish was also consistently presented by its advocates as easy to learn".

[^12]:    ${ }^{4}$ Most of these languages are spoken in the community and - alongside English - belong to the top 10 most spoken languages: Turkish (4.5\%), Polish (1.7\%), Spanish (1.5\%), French (1.4\%), Yiddish ( $1.3 \%$ ), Bengali ( $1.3 \%$ ), Portuguese ( $1.2 \%$ ), Gujarati ( $0.8 \%$ ) and German ( $0.7 \%$ ).
    ${ }^{5}$ Three schools that already teach Modern Hebrew are not part of the project, and several newly created schools do not yet host a Year 6 cohort.

[^13]:    ${ }^{6}$ In summer 2021, a transition document listing the knowledge and grammatical terminology that Y6 pupils have covered has been added to the information transmitted to help with the post-Covid recovery curriculum (see Appendix A).

[^14]:    ${ }^{a}$ According to Bernadette Clinton, "A level French and Spanish numbers were extremely small before 2017" (email communication 22/02/2022). For more information on education in Hackney, see Boyle \& Humphreys (2012).

[^15]:    ${ }^{7}$ Ian Bauckham led a review of MFL pedagogy, published by the Teaching Schools Council in 2016, which states the "vast majority" of young people should study a modern foreign language up to the age of 16 .

[^16]:    ${ }^{8}$ Which represents as little as half of the average time spent internationally on languages in primary schools (OECD 2014).
    ${ }^{9}$ This led one of us to start a YouTube Channel with her son based on the CLIL approach to support his class' learning of French during the first lockdown. Resources can be found at this address: https://www.youtube.com/channel/UCwySblarKsO0gNoFn1vTNuA.

[^17]:    ${ }^{10}$ This does not need to be the case. Judith Woodfield, a geography teacher, delivered CLIL sessions in French (Woodfield 2021).

[^18]:    ${ }^{11}$ Le niveau bleu by the Institut Français or the German and STEM project developed by the Goethe Institut.
    ${ }^{12}$ For instance ADiBE or the Erasmus+ project, "Gamifying CLIL within a mathematical context".

[^19]:    ${ }^{13}$ Adapted from a version produced by https://ascl.org.uk.

[^20]:    Victoria Murphy \& Hamish Chalmers. 2022. The impact of language learning on wider academic outcomes. In Kevin McManus \& Monika S. Schmid (eds.), How special are early birds?: Foreign language teaching and learning, 165-188. Berlin: Language Science Press. DOI: 10.5281/zenodo.6811470 @ ©

[^21]:    ${ }^{1}$ Stroop, Simon and Flanker tasks are commonly used in experiments to assess cognitive functioning. They involve asking participants to respond differently to different types of stimuli, such as pressing a red button when seeing a green colour, a green one when seeing a red colour, and so on. The speed and accuracy with which they respond is used as a measure of cognitive functioning.

[^22]:    ${ }^{2} \mathrm{~A}$ rapid evidence assessment is a type of systematic review, where literature addressing a specific question or set of questions is systematically searched for, located, appraised, synthesised and transparently reported, to give an unbiased account of the findings of the body of research as a whole. In an REA, some of the elements of a standard systematic review are omitted to speed up the process. This allows for a quick "temperature check" of the field before a more thorough review can be conducted. Our full report is free to download at https://educationendowmentfoundation.org.uk/education-evidence/evidence-reviews/ foreign-language-learning.

[^23]:    ${ }^{3}$ Of course, some FL learners will also be bilingual in that they may have more than one language in the home, and then be taught a foreign language in the classroom. To our knowledge, there has been little research on this area and hence at this stage we will not discuss this particular sub-population.

[^24]:    ${ }^{4}$ See also Kasprowicz et al. (2022 [this volume]) for further, more detailed discussion of metalinguistic awareness in language learning.

[^25]:    ${ }^{5}$ The SAT is a university entrance exam used routinely in the USA.

[^26]:    ${ }^{1}$ The symbols [/] and [//] are used in the transcriptions to signal interruptions in the oral speech.

[^27]:    ${ }^{2}$ The tables show the means, confidence levels and confidence intervals which are indicated by Trad.lower and Trad.upper.

[^28]:    ${ }^{3}$ One relevant finding from child language acquisition is that monolingual Spanish children seem to master null subjects corresponding to 1st and 2nd person before those corresponding to a 3rd person (see e.g. Forsythe et al. 2021).

