Doktori (PhD) disszertáció

Esther Gutiérrez Eugenio

L3 teachers’ beliefs about multilingualism in Europe

2017

Eötvös Loránd University, Budapest

Faculty of Education and Psychology

Doctoral School of Education

(Director: Prof Gábor Halász, Dsc., habil.)

PhD Programme in Language Pedagogy

(Director: Dr Krisztina Károly, DSc., habil.)

L3 teachers' beliefs about multilingualism in Europe

by

Esther Gutiérrez Eugenio

Supervisors:

Dr Katalin Csizér, ELTE

Dr Éva Illés, ELTE

Members of the Defence Committee:

Dr Medgyes Péter, ELTE (Chair)

Dr Nikolov Marianne, Pécsi Tudományegyetem (Referee)

Dr Piniel Katalin, ELTE (Referee)

Dr Holló Dorottya, ELTE (Secretary)

Dr Ulrike Jessner, Pécsi Tudományegyetem (Member)

Dr Loch Ágnes, Budapest Gazdasági Egyetem (Member)

Dr Uwe Pohl, ELTE (Member)

Dr Lázár Ildikó, ELTE (Member)

Abstract

Multilingualism has recently come to the forefront of language education in Europe. Research on multilingualism has focused mainly on how third or additional languages (L3s) are learnt, how they should be taught, and what the profile of the L3 teacher should be. However, L3 programmes and teacher training courses do not seem to have echoed these findings yet.

This study sets out to investigate the current mismatch between how L3s are being learnt (i.e., as L3s) and how they are being taught (i.e., as second languages or L2s). Based on the premise that teachers' beliefs are the strongest predictors of teachers' practices, this study aims to assess the beliefs that L3 teachers in Europe hold about multilingualism (i.e., about L3 learning, L3 teaching and the L3 teacher). In order to suggest measures which could help reduce the current mismatch, this study also aims to identify any background variables which may be associated with differences in these beliefs.

Data was collected through an online questionnaire which received responses from 984 teachers of Spanish, French and German, the three most popular L3s in Europe (European Commission, 2012a, 2012b), working in 34 European countries. Results confirm the mismatch identified at the beginning, with L3 teachers showing only partial awareness of how L3 learning, L3 teaching and the profile of the L3 teacher differ from those in L2 education. The results also suggest that teachers who are more multilingual, have formal qualifications in other languages, and have experience teaching languages other than the L3 generally have more accurate beliefs about multilingualism.

In light of these results, training programmes and recruitment policies should be reconsidered to ensure that active and prospective L3 teachers have more adequate beliefs about multilingualism. In turn, this will lead to L3 teaching practices that are more suitable to address the needs of L3 learners, helping reduce the extent of the current mismatch.

Acknowledgements

First and foremost, I would like to thank my supervisors, Dr Illés Éva and Dr Csizér Katalin, for their invaluable advice and support throughout the past four and a half years. I would also like to thank Dr Gyula Tanko, Dr Holló Dorottya, Dr Uwe Pohl and Major Éva for their feedback on the research proposal and previous drafts of the dissertation, which greatly helped me shape the final study. I am also indebted to Dr Holló Dorottya, as the Director of Studies of the PhD programme, and to Dr Károly Krisztina, the Programme Director, for their encouragement, advice and assistance throughout both the academic and administrative procedures, and to Dr Medgyes Péter, Honorary Programme Director, who predicted the topic of my dissertation on our first encounter, well before I even considered it as an area of my interest.

My greatest appreciation goes also to all the translators, reviewers, teachers and colleagues who volunteered to assist with the design, translation and validation of the questionnaire in English, Spanish, French and German. Likewise, I would like to extend my warmest thanks to each and every one of the 1052 teachers from all around Europe who willingly devoted some of their precious time to fill in the questionnaire used in this study.

I would also like to thank my PhD colleagues, Csaba, Vica, Andi and Orsi, with whom I have had the chance to share this fascinating adventure and whose moral, academic and practical support cannot be appreciated enough. Equally, I am most grateful to my work colleague Mariangela, who has coped so patiently with my stress and regular absences from the office, to my work colleagues Tom and Agnieszka, whose help with the statistical analyses was vital, and to my friend Attila, who has always been there when I needed him.

Finally, I would like to thank my parents and my sister, who have been by my side supporting me all along the way, and to Andrew, for his continued help, care and encouragement over the last year.

Table of Contents

Abstract ..... **i**

Acknowledgements ..... **ii**

Table of Contents ..... **iii**

1. Introduction **1**

2. Research Aims **5**

3. Literature Review **7**

3.1 Multilingualism in Europe 7

3.1.1 Linguistic diversity in Europe 7

3.1.2 Language policy in Europe 9

3.1.3 The role of English in a multilingual Europe 11

3.1.4 Language teacher training programmes across Europe 13

3.2 Multilingualism and Third Language Acquisition (TLA) 15

3.2.1 Defining multilingualism 17

3.2.2 Focus on L3 learning 23

3.2.3 Focus on L3 teaching 35

3.2.4 Focus on the L3 teacher 46

3.3 Teachers' Beliefs 51

3.3.1 Defining teachers' beliefs 51

3.3.2 Teachers' beliefs in second/foreign language education 55

3.3.3 Teachers' beliefs in bilingual and multilingual contexts 60

3.3.4 Teachers' beliefs about multilingualism in Europe 64

3.3.5 Researching teachers' beliefs: methodological considerations 70

3.3.6 Variables influencing teachers' beliefs 73

4. Research Questions **74**

5. Research Methods **75**

5.1 Research Framework 75

5.1.1 Constructs: identifying and operationalising the three main elements of multilingualism 75

5.1.2 Background variables: identifying and operationalising potential correlates of teachers' beliefs about multilingualism 76

5.2 Pilot Studies 78

5.3 Participants 79

5.4 Instrument 85

5.5 Data Collection 90
5.6 Data Analysis 91
6. Results and Discussion 93
6.1 Dimensions of Analysis 93
6.2 Research Question (1): What Beliefs Do L3 Teachers across Europe Hold about Multilingualism? 94
6.2.1 Descriptive analysis 95
6.2.2 Correlations among scales 105
6.2.3 Answering Research Question (1): Summary and conclusions 108
6.3 Research Question (2): What Background Variables Can Be Associated with Differences in L3 Teachers' Beliefs about Multilingualism? 111
6.3.1 Regarding the L3 learner 112
6.3.2 Regarding the L3 teaching context 128
6.3.3 Regarding the L3 teacher 137
6.3.4 Answering Research Question (2): Summary and conclusions 189
6.4 L3 Teachers' Beliefs about Multilingualism: Summary and Discussion of Findings . 203
6.4.1 L3 teachers' beliefs about L3 learning 204
6.4.2 L3 teachers' beliefs about L3 teaching 205
6.4.3 L3 teachers' beliefs about the L3 teacher 207
6.4.4 L3 teachers' beliefs about multilingualism: final overview 208
7. Implications for Language Pedagogy and Policy 211
7.1 Teacher Recruitment Policies 212
7.2 Teacher Training Programmes 213
8. Conclusions 218
8.1 Summary 218
8.2 Limitations of the Study 221
8.3 Suggestions for Further Research 224
References 227
Appendix A – Final Questionnaire in English 261
Appendix B – Screenshot of the Online Questionnaire 267
Appendix C – Design, Piloting and Validation of the Questionnaire 268
Pilot 1: From Concepts to Scales 268
Initial building and translation of the questionnaire 268
Validation of the scales 268

Pilot 2: Revision, Translation and Second Validation of the Questionnaire......................270
Theoretical revision: redesigning the instrument 270
Translating the instrument into Spanish, French and German 270
Validating the reviewed questionnaire in the three languages 271

1. Introduction

In the last few years, English has become the language for international communication and the new lingua franca all around the world (Holliday, 2005, 2009; Seidlhofer, 2001, 2005, 2011; Widdowson, 1994, 1997, 2003). Europe has been no exception: English has become the most important language of communication among European citizens, and some have even talked about the emergence of a European non-native variety of English called Euro-English (Forche, 2012; Jenkins, 2001; Modiano, 2001, 2003, 2007, 2009; Mollin, 2006; Murray, 2003; Seidlhofer, 2001). As a result of the increase in the use of English, the need to learn this language has become even more important, with European institutions and national governments investing considerable human and financial resources in an effort to improve the quality and quantity of English learning opportunities across society (Extra & Yagmur, 2012).

As confirmed by the results from the Special Eurobarometer 386 (European Commission, 2012a) and from the European Survey on Language Competences (European Commission, 2012b), English is not only the most widely used language for communication but also the first foreign language that European citizens are most likely to learn. If an individual's mother tongue is considered as their L1, English stands as the preferred L2 or first foreign language for most Europeans.

It follows from this that any other foreign language learnt after or while learning English will, by definition, need to be considered as the individual's third or additional language (Cenoz, 2003). The learning of L3s in Europe seems to be increasing, particularly as a result of the EU Conclusions of the Barcelona Council (2002) that envisioned a Europe where all citizens would be able to communicate to some extent in two foreign languages besides their mother tongue, also known as the *mother tongue plus two* or *L1+2 objective*. According to the European Commission (2012a), the most widely spoken foreign languages

after English, and therefore the main L3s learnt by Europeans, are French, German and Spanish, in this order of popularity. Multilingualism and L3 learning seem, therefore, to be an ever-growing phenomenon in Europe, and researchers in Third Language Acquisition (TLA) have been arguing for over a decade for this field to be recognised as independent and significantly different from Second Language Acquisition (SLA) (Cenoz, 2003; Cenoz, Hufeisen & Jessner, 2001; Flynn, Foley & Vinnitskaya, 2004; Jessner, 2008, 2010; Safont Jordà, 2005; Wilton, 2009).

As shown in Figure 1, the new way in which languages are being used also leads to changes in the nature of the learning of these languages. However, the changes that have already occurred in language use and language learning have not been reflected yet in how languages are taught. As Figure 2 illustrates, English is still being taught as an ordinary L2, without reflecting its new status as a lingua franca on the pedagogical approach (Holliday, 2005, 2009; Seidlhofer, 2001, 2005, 2011; Widdowson, 1994, 1997, 2003). The rest of the languages are also being taught as L2s, without taking into consideration the fact that students are now learning them as L3s (European Commission, 2012a, 2012b).

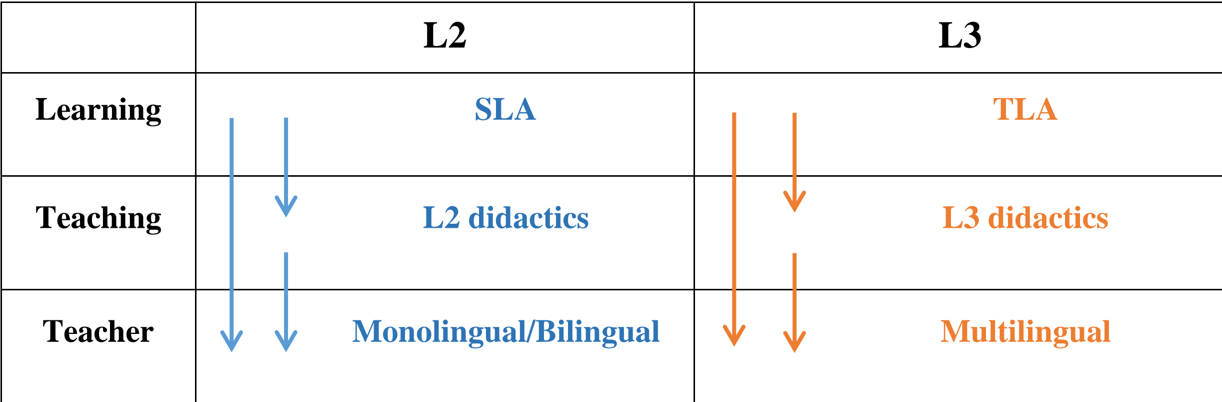
	PAST	**NOW**
Language use	• All languages used in isolation and mainly with native speakers.	• English = used as an international lingua franca, in a large variety of unspecifiable contexts, mainly with non-native speakers. • Other languages = used in specific contexts, mainly with native speakers.
Language learning	• All languages learnt as L2s.	• English = learnt as an L2. • Other languages = learnt as L3s.

*Figure 1***.** Comparison of past and current situation regarding language use and type of language learning according to the order of acquisition (L1, L2, L3).

	PAST	NOW
Recommended teaching	• All languages taught as L2s according to SLA theoretical and pedagogical principles.	• English = taught as an L2 and as a lingua franca. • Other languages = taught as L3s.
Current teaching		• English = taught as an L2 only. • Other languages = also taught as L2s.

Figure 2. Comparison of past and current situation regarding how languages should ideally be taught and how they are taught in reality.

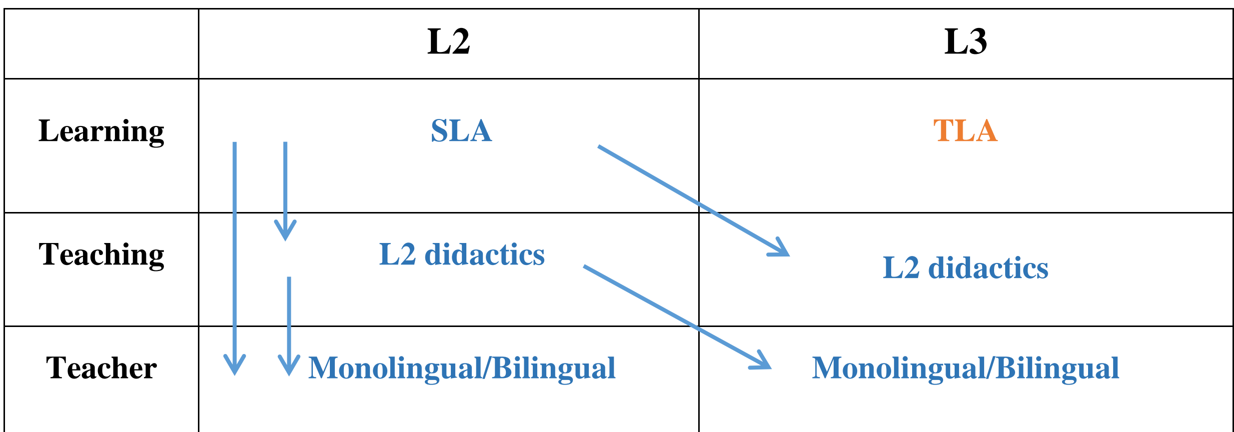
As Figure 3 shows, the theories and findings in SLA greatly determine the L2 didactics and the profile of the L2 teacher as preferably a bilingual person themselves (Medgyes, 1983, 1992, 1994; Widowson, 2003). Similarly, TLA should also inform the pedagogical principles applied for L3 teaching, and consequently determine the profile of the teacher as a multilingual L3 teacher (Hufeisen, 2005; Jessner, 2008; see 3.2.4 below). However, most language courses and teacher education programmes that exist to date do not differentiate whether the language taught is an L2 or an L3, and base their pedagogical approach purely on SLA principles and theories (Inglada, 2011; Instituto Cervantes, 2007; Wong et al., 2007).



	L2	L3
Learning	**SLA**	**TLA**
Teaching	**L2 didactics**	**L3 didactics**
Teacher	**Monolingual/Bilingual**	**Multilingual**

Figure 3. Recommended correspondence between the nature of learning, the teaching approach, and the teacher profile for L2s and L3s.

This current mismatch between L3 learning, L3 teaching and the profile of the L3 teacher, represented in Figure 4, has the potential to importantly hinder students learning progress, depriving them from using tools which could otherwise speed up, enhance and enrich the L3 learning process (Cenoz, 2003; Gibson & Hufeisen, 2002; Herdina & Jessner, 2002; Hufeisen & Neuner, 2004; Jessner, 2006, 2008, 2010; Neuner, 2004; Manno, 2004). Given the growing interest in promoting multilingualism and increasing the efficiency of language education across Europe, this issue requires urgent attention from decision-makers in education as well as in-depth research to inform future policies. The current study constitutes an initial attempt to bridge what Smith (2015) identified as the "gap between ideal practice and classroom reality" (p. ii) in L3 teaching.



	L2	L3
Learning	SLA	TLA
Teaching	L2 didactics	L2 didactics
Teacher	Monolingual/Bilingual	Monolingual/Bilingual

Figure 4. Current correspondence between the nature of learning, the teaching approach and the teacher profile for L2s and L3s.

2. Research Aims

Following from Figure 4 above, the goal of this study is to assess the extent to which L3 teachers are aware of the unique nature of L3 learning, L3 teaching and the L3 teacher's profile. In order to do this, this project aims to quantitatively assess the beliefs that L3 teachers in Europe hold about these three key elements in multilingualism. For the purposes of this study, *assess* will be used as a non-evaluative term to describe and analyse teachers' beliefs. *Multilingualism* will be used as an over-arching term to cover all the processes involved in the learning and teaching of two or more languages besides the L1 (Cenoz, 2003; Jessner, 2008), and *teachers' beliefs* as comprising everything that teachers believe, know, think and feel about the given constructs, including their intuitions and assumptions (see 3.3.1.3 below for a full definition).

Beyond providing an overview of L3 teachers' beliefs about multilingualism across Europe, this study also aims to offer an indication of how these beliefs may be related to other factors, such as students' level in the L3, whether the teacher works in a multilingual country, or the number of languages that teachers have learnt. In this study, these factors are referred to as *background variables* to avoid any confusion with the statistical term *factor*. Considering the lack of research exploring the relationships between teachers' beliefs about multilingualism and a consistent set of background variables, this study will take an exploratory stance and include a large number of background variables which have been investigated in isolation in other studies (De Angelis, 2011; Flores, 2001; Griva & Chostelidou, 2011; Lim & Torr, 2007; Mady, 2012; Otwinowska, 2013; Vaish, 2012).

Therefore, this study seeks to fulfil the two following research aims:

(1) To describe L3 teachers' beliefs about multilingualism; and

(2) To identify background variables associated with differences in L3 teachers' beliefs about multilingualism.

While qualitative research methods are recommended to conduct in-depth investigations of the complex structures within teachers' belief systems, questionnaires have proved efficient instruments to gain an overview of teachers' beliefs about certain subconstructs and of the relationship between these beliefs and relevant background variables (Borg, 2015; Organisation for Economic Co-operation and Development – OECD, 2009; Pajares, 1992). Considering the aims that this study aims to fulfil, a questionnaire was considered the most suitable research instrument.

Given the lack of systematic and reliable quantitative investigations of teachers' beliefs about multilingualism, the relevance of this study is twofold. First, the results presented in this dissertation offer a much-needed empirical base for future decisions towards bridging the gap in Figure 4 above. Second, this study also provides a novel and holistic picture of L3 teachers' beliefs about multilingualism across Europe, and of how a large number of background variables may relate to these beliefs. Although possibly of less pedagogical importance, this second point constitutes on its own a significant contribution to the emerging field of teachers' beliefs about multilingualism, becoming the first cross-sectional Europe-wide study conducted through a reliable piloted trilingual questionnaire to measure the beliefs of teachers of Spanish, French and German as L3s.

3. Literature Review

This section will first frame multilingualism within the European context, exploring the linguistic diversity currently existent across Europe, the language policies for the promotion of linguistic diversity and multilingualism, the role that English has assumed in this multilingual setting, and the teacher training programmes across Europe offering training for L3 teachers. A review of findings in multilingualism will follow, focusing on the three elements central to Third Language Acquisition (TLA): L3 learning, L3 teaching and the L3 teacher. This will also detail the constructs selected to measure each element in the questionnaire. Finally, research on teachers' beliefs will be presented and discussed, with a particular emphasis on previous studies investigating teachers' beliefs about multilingualism and the background variables associated with these beliefs.

3.1 Multilingualism in Europe

3.1.1 Linguistic diversity in Europe

In Europe, a considerable number of languages cohabit in a relatively small territory, each usually within the boundaries of their respective nation states. According to figures published by the European Commission (2012a), in the European Union (EU) there are 24 official languages, plus more than 60 minority languages and languages spoken by immigrant communities.

Within the EU, there are also several bilingual regions and countries where two or more official languages are combined with the learning of other foreign languages. The main European countries considered multilingual are Belgium, Switzerland, Luxembourg and Malta, which in this study are referred to as *multilingual countries*. Belgium and Switzerland are both truly multilingual countries, where several official languages are spoken in separate regions of each country (French, Dutch and German in Belgium, French, German, Italian and Romansch in Switzerland). Although inhabitants of one region are not necessarily fluent in

the other two official languages of their country, they usually study at least one of them at school from an early age. They are also thoroughly exposed to the use of several languages in different life domains (e.g., they may speak French at home but German at work).

In the case of Malta, most of the population is fluent in both English and Maltese, and usually have a good understanding of Italian. Although both English and Maltese are taught throughout the educational system and used throughout the small territory of this country, levels of proficiency seem to depend on the language of upbringing (personal communication).

As for Luxembourg, this small country is probably the most truly multilingual of all, and enjoys the highest rate of bilingualism in Europe with 99% of the population stating that they can speak at least one foreign language (European Commission, 2012a). Luxembourg has a trilingual educational system in which Luxembourgish is the medium of instruction during the first years of schooling, replaced by German for a few more years, and finally replaced by French for the last few years of secondary education. Besides these three languages, English is taught as a foreign language from an early age, and most students also study another foreign language at secondary school. As a result of this over efficient multilingual education system, most Luxembourgish people speak fluently at least four languages, most commonly Luxembourgish, French, German and English.

There are also a number of bilingual regions in Europe where the national language is spoken alongside other co-official or regional languages and dialects. For example, Frisian is spoken in Friesland in Netherlands alongside Dutch, and Catalan, Basque and Galician are spoken in separate regions of Spain alongside Spanish (Lasagabaster & Huguet, 2007). For this reason, in order to avoid any misinterpretations, in this study all countries which have not been presented in this section as *multilingual countries* will be referred to as *non-multilingual countries*. This term is preferred over other alternative denominations such as *monolingual*

countries, which may lead to linguistic sensitivities and not fully reflect the reality of some of these countries which may have regions where more than one language is used.

3.1.2 Language policy in Europe

Amidst such a complex and diverse linguistic landscape, there are two supranational organisations which work for the promotion of multilingualism in Europe: the Council of Europe and the European Union. While both have the right to make recommendations to their member states, none of them can actually impose changes or decisions in the field of education, which remains the responsibility of national governments. This is partly the reason why Europe still presents such a mixed and diverse educational panorama, in comparison with other fields such as trade or agriculture in which there exists much larger coherence and cooperation across countries (European Commission, 2012b; Gutierrez Eugenio & Saville, 2016).

In the past decade, the Council of Europe has significantly reduced their activities in the field of languages. Currently, their Language Policy Unit is only concerned with the maintenance and further development of the Common European Framework of Reference for Languages (CEFR), and a few long-standing projects such as the European Language Portfolio (ELP) and the Linguistic Integration of Adult Migrants (LIAM). Additionally, the Council of Europe established in 1994 their European Centre for Modern Languages (ECML). The ECML aims to promote excellence in language education across Europe by coordinating projects and activities oriented towards the modernisation of national educational systems and the empowerment of local experts and educationalists. Despite its constituency based on member states, the reach of the Council of Europe with national governments is currently very limited, with most policy in the field of language education coming from the European Union.

The European Union does not have any legislative power in education either, in line with the principle of subsidiarity between the EU and their Member States. Instead, the Open Method of Coordination (OMC) allows the European Commission, the EU's executive body, to liaise closely and intensively with the EU Member States' experts and officials who are directly involved in the drafting and implementation of national policies in language education. The role of the European Commission is to support and coordinate national actions to ensure cohesive progress in language education initiatives across all EU countries. To this end, the European Commission conducts regular studies about particularly relevant issues, submits recommendations to the European Parliament and the European Council, and organises meetings and events to foster communication, cooperation and peer-learning across EU educational authorities.

In the field of language education, the work of the European Commission throughout the past 15 years has been guided by the objective agreed at the Barcelona Council of March 2002: the aim that every EU citizen should have the chance to learn at least two foreign languages from a very early age. This has later become known as the Barcelona objective, and is often referred to also as the *mother tongue plus two* or *L1+2 objective*. Faced with the need to monitor countries' progress towards this goal, for over a decade the European Commission focused most of their efforts and funding in designing and implementing a cross-sectional standardised test system that would allow measuring 15-year-olds' language skills on a regular basis, in line with other international student surveys such as PISA (OECD, 2009). However, in view of the many financial and practical difficulties encountered, in September 2015 the European Commission announced their intention to abandon the use of standardised tests as a way of monitoring and promoting Europeans' progress in language competences. Instead, they have suggested a new set of measures aimed at increasing the quality of language learning and teaching across EU countries. These

measures focus on increased cooperation among EU Member States to help teachers develop not only students' skills in one or two foreign languages, but also their ability to interact in multilingual settings and to learn further languages in the future when and as required by their personal and professional circumstances (Gutierrez Eugenio & Saville, 2016).

3.1.3 The role of English in a multilingual Europe

In Europe, English seems to be the first foreign language learnt by the immense majority of students (Eurydice, 2012), with the exception of those in bilingual regions who will learn it as an L3. This means that, by the time students start learning a second foreign language (or L3), they will have already acquired a certain level of proficiency in at least one previous foreign language. In most cases, this language will be English, although the level of proficiency acquired may not actually be very high considering the results from European Commission (2012b).

This is not without polemic. For example, some authors (Hufeisen, 2005; Krumm, 2005) warn about the negative motivational influence of English for the learning of additional languages, and argue that once learners can communicate effectively in English, they find it less appealing to invest time and effort in learning a second foreign language. However, other authors such as Jessner (2008) consider that English learning should be organised in a way compatible with multilingualism, maybe by introducing the other foreign languages at an early stage of the acquisition of English, or by establishing some integrative approaches to language teaching where the different foreign languages could be taught almost simultaneously in the same classroom (e.g., Candelier et al., 2012; Spöttl & Hinger, 2001).

The popularity of English as the foreign language by default has led to two important phenomena which closely relate English to multilingualism: the use and learning of English as a Lingua Franca (ELF), and the acquisition of English as a third language (L3). Given their

importance in shaping language education trends in Europe, these two phenomena deserve some discussion.

Since the second half of the 1990s, there has been a growing research interest in how English is acting as a lingua franca, that is, as the language of communication between people who do not share a common mother tongue, especially in a globalised world where the number of non-native speakers of English far outnumbers that of native speakers (Brumfit, 2001; Jenkins, 2015). Speakers of ELF should not be expected to imitate the language use of native speakers but rather entitled to use the language in whichever ways are most effective for communication among them (Holliday, 2005, 2009; Jenkins, 2015; Llurda, 2004; Seidlhofer, 2001, 2005, 2011). After several years of research aiming to describe and tentatively codify different aspects of ELF use, mainly pronunciation (Jenkins, 2000) and lexicogrammar (Mauranen, 2003; Seidlhofer, 2001, 2004), the focus shifted to investigate how ELF speakers make use of "their multi-faceted multilingual repertoires in a fashion motivated by the communicative purpose and the interpersonal dynamics of the interaction" (Seidlhofer, 2009, p. 242).

More recently, researchers have started highlighting the need to embed understandings of ELF within the findings and theories of multilingualism. As Jenkins (2015) argues, multilingualism is really "in the foreground [of EFL], the one single factor without which there would be no ELF" (p. 63). According to her, ELF should no longer be seen as the superordinate of multilingualism, but rather as one more of the linguistic systems that a multilingual individual has in their mind. In line with current dynamic models of multilingualism (namely Herdina & Jessner, 2002; see 3.2.2 below), English will always be dripping into the other languages in a greater or smaller measure, in the same way that the other languages will be influencing how English is used, be it in ELF communicative contexts or not. Therefore, the attention is currently shifting from ELF as influenced by the

students' L1, to a more dynamic view of ELF use where speakers' multilingual repertoires would be shaping their production and understanding of the language in a multitude of ways, be these observable and conscious or hidden and unknown even to the speakers themselves.

In bilingual or multilingual regions, many students know at least two other languages to a considerable level of proficiency by the time they start learning English (Cenoz & Hoffmann, 2003; Muñoz, 2000; Lasagabaster, 2000; Ytsma, 2001). This is what researchers have called English as a Third Language (ETL) (Cenoz & Jessner, 2000), and they argue that the learning of ETL necessarily differs from traditional EFL learning: (1) because in this case English is being learnt as an L3 and not as an L2; and (2) because English is currently not just one more foreign language but the established lingua franca for global communication. As a result, the learning and teaching of ETL should, firstly, take into consideration all the findings in TLA and multilingual pedagogical approaches recommended to enhance L3 learning (discussed in 3.2.3 below). Secondly, the nature of ELF also needs to be considered, and ETL teaching needs to continuously draw on the findings and discussions not only of TLA but also of EFL. For example, ETL students should be made aware of the special status of English, and encouraged to explore how they can deploy their communication skills and knowledge of other languages to maximise the efficiency of their encounters with other EFL speakers.

3.1.4 Language teacher training programmes across Europe

Considering the large linguistic diversity in Europe, the policy developments for the promotion of multilingualism, and the increasing role of English as lingua franca for communication among European citizens, it is safe to state that most foreign languages across Europe are currently being learnt as L3s. However, it is difficult to find any language teacher training programmes specifically designed for L3 teachers, or that at least include some

information about the main features of multilingualism and L3 learning, as TLA researchers have strongly recommended (e.g., De Angelis, 2011; Jessner, 2008).

One of the remarkable examples of existing programmes is the Innsbruck Model of *Fremsprachendidaktik* (Hinger, Kofler, Skinner & Stadler, 2005) at the University of Innsbruck (Austria). In this programme, future language teachers have to attend a number of courses on general educational aspects delivered in a mixture of English and German, and are invited to introduce all the other languages available in the programme for crosslinguistic reference at certain moments during these courses. This is argued to promote metalinguistic awareness in the future teachers (Jessner, 1999) and to help them get acquainted with the structure and general features of the other languages that their future students may know or be in the process of learning. Modules on TLA and multilingualism are also a central part of the training of language teachers in this programme, where they are explicitly made aware of the differences between SLA and TLA, and encouraged to relate their own experiences of learning and using foreign languages to the findings and concepts encountered throughout the course.

Another example is the University of Mondragon, in the Basque Country, one of Spain's bilingual regions. This university offers a bachelor degree for the training of primary teachers which includes modules taught and assessed in English, which is the L3 of most teacher trainees. Primary teachers specializing in language teaching can also take modules on multilingualism and third language acquisition, where they are asked to reflect on their own learning experiences and trained on the latest pedagogical trends in L3 teaching (see 3.2.3 below for more details on L3 teaching). Both the Austrian and the Spanish examples demonstrate that providing effective training for multilingual L3 teachers is perfectly possible as part of regular undergraduate curricula.

At the European level, the European Commission has a framework of cooperation with the ECML to subsidize the *Supporting Multilingual Classrooms* initiative. According to the programme's website, the long-term objective is to help learners with a migrant background become "better integrated into national education systems, leading to better educational achievement, which in turn will contribute to improved self-esteem, better employment prospects and a more cohesive society" (ECML, online). As part of this initiative, the ECML organises a series of workshops around Europe which cover different aspects related to multilingualism and third language acquisition, mainly from the perspective of integrating migrant students with complex linguistic backgrounds into the mainstream education system. Although the number of teachers who can attend these workshops is still very limited, the centrality of this issue can be considered as a positive step towards a more adequate teaching approach for third languages in the future.

3.2 Multilingualism and Third Language Acquisition (TLA)

Multilingualism is probably as old as humanity. Yet, until the last decade of the past century there have not been systematic studies to understand the learning and acquisition of more than two languages. The common belief was that SLA processes would apply equally to the learning of a first foreign language (L2) than to the learning of a third, fourth or, say, seventh language (Aronin & Hufeisen, 2009; Cenoz, 2003; Cenoz & Hoffmann, 2003; Jessner, 2008; Wilton, 2009). As Sharwood Smith (1994) explains:

> second language acquisition (SLA) will normally stand as a cover term to refer to any language other than the first language learned by a given learner or group of learners, (a) irrespective of the type of learning environment and (b) irrespective of the number of other non-native languages known by the learner (p. 7).

However, after numerous studies investigating multilingual learners (e.g., Aronin & Toubkin, 2002; Jessner, 1999; Kemp, 2007; Ó Laoire & Singleton, 2009), researchers

concluded that the processes involved in learning a third language are noticeably different from those underlying the learning of a second language (Jessner, 1999, 2008; Cenoz, 2003; Cenoz, Hufeisen & Jessner, 2001; Flynn, Foley & Vinnitskaya, 2004; Safont Jordà, 2005). The differences observed were not only merely quantitative (i.e., a larger number of languages) but also qualitative since the learning of additional languages seemed to happen through the activation of different cognitive and metacognitive processes (Herdina & Jessner, 2002; Hufeisen, 1998; Hufeisen & Marx, 2007).

In view of these findings, it seemed necessary to coin a new name for the discipline that would focus specifically on the learning of third or additional languages (L3s). This is how the concept of TLA was born.

TLA is defined by Cenoz (2003, p. 71) as the "acquisition of a non-native language by learners who have previously acquired or are acquiring two other languages". The term *acquisition* is used to include all processes of both acquisition in the natural setting and learning in instructional contexts, according to point (a) in Sharwood Smith's (1994) definition above.

The term *third language* or *additional language* (L3) is used to refer to "the third language that the speaker has contact with during her/his lifetime" (Jessner, 2008, p. 18). This definition does not only include strictly only the third language, but also any foreign language learnt after the second language (L2), regardless of whether it is actually a third or a tenth language (Cenoz, 2003; Jessner, 2008). The use of the term L3 also has implications for current understandings of first language (L1) and second language (L2), as discussed in 3.2.1.3 below.

The term *multilingualism*, and therefore its adjective *multilingual,* has traditionally been considered as the end product of TLA, which would by definition be the process of becoming multilingual (Cenoz, 2000). However, this view of process-product seems to have

lost weight in later years, and *multilingualism* and its derivations are often used in literature to include any aspect related to TLA, such as multilingual learners, multilingual didactics, multilingual teacher (Jessner, 2008). In this dissertation, TLA and multilingualism are used as functional synonyms, and so is its derivation multilingual learner and L3 learner. In contrast, this study argues for a differentiation between multilingual didactics and L3 didactics, and between multilingual teacher and L3 teacher, as discussed below in subsections 3.2.3 and 3.2.4.

3.2.1 Defining multilingualism

The term *multilingualism* has accounted for a wide range of definitions, many of them inherited from previous discussions about bilingualism (Herdina & Jessner, 2002; Jessner, 2008; Kemp, 2009). Historically, terms such as *trilingualism* and *polyglotism* have been used to refer to the use of several languages either by one individual or within a specific geographical region (Wilton, 2009). Other terms have emerged more recently in different contexts, such as *plurilingualism* (Council of Europe, 2001), *multilinguality* (Aronin & Ò Laoire, 2004), *polylingualism* (Jørgensen, 2008), *translingualism* (Canagarajah, 2013), *transidiomatic practices* (Jaquemet, 2005) and *translanguaging* (Creese & Blackledge, 2010; Garcia, 2009, 2013).

However, these terms only differ from multilingualism in that they focus on specific aspects of multiple language use and learning within what could be considered as a continuum of possibilities, perspectives and contexts in which several languages can cohabit. For this reason, the current study prefers the term *multilingualism* as the umbrella term to encompass all aspects of multiple language use and learning, following the trend in most current literature (e.g., Cenoz, 2003; Herdina & Jessner, 2002; Jessner, 2006, 2008; Kemp, 2009).

3.2.1.1 How many languages and at what level of proficiency?

Many authors (e.g., Jessner, 2008; Wilton, 2009; Kemp, 2009; García-Mayo, 2012) have discussed whether the term *multilingualism* should be used only to describe a perfect balanced proficiency of three or more languages, or whether we should also accept situations where as few as two languages are known at different levels of proficiency. For some experts (Aronin & Hufeisen, 2009; Herdina & Jessner, 2002; Jessner, 2008; Wilton, 2009), *bilingualism* and *trilingualism* (understood as the knowledge of two and three languages respectively) should be considered as modalities of *multilingualism*, being *multilingualism* a broader term to simply define the knowledge of more than one language. However, for most of the researchers the term *multilingualism* is "only used to refer to the learning of more than two languages" (Jessner, 2008, p.18), making a clear separation between the learning and use of a first foreign language (L2), and the learning and use of other additional or third languages (L3). The current study adheres to this understanding of multilingualism, and consequently participants' responses were only considered if their students were learning an L3.

Regarding the level of proficiency needed in each of the languages, Kemp (2009) reviewed existing definitions and concluded that, despite the different nuances, researchers in this field seem to agree that "multilingualism is the ability to use three or more languages to some extent, whether these are in the same or different domains" (p. 16). This definition includes, therefore, individuals with an advanced mastery of more than two languages, but also those who have knowledge of three or more languages at different levels of proficiency that they are able to use differently depending on the topic and context. This study conforms to Kemp's definition of *multilingualism*, with a special emphasis on the fact that the individual must be able to use at least three languages "to some extent" and "in the same or different domains" (p. 16).

This understanding of multilingualism is also in line with the definition of Third Language Acquisition (TLA) as the "acquisition of a non-native language by learners who have previously acquired or are acquiring two other languages" (Cenoz, 2003, p. 71). In this definition, the author reminds that L3 learners do not necessarily have an advanced or native proficiency in their two other languages, and that they may actually still be in the process of learning or acquiring them at the time of starting to learn the L3.

3.2.1.2 Societal vs. individual multilingualism

One of the most common distinctions made when talking about *multilingualism* has been between *societal* and *individual multilingualism*. Societal multilingualism refers to the co-existence of several languages in a same territory or social group, while individual multilingualism describes an individual's knowledge of several languages, regardless of whether these languages are used in the local area or not (Kemp, 2009).

The distinction between societal and individual multilingualism has led some international organisations, such as the Council of Europe and their ECML, to defend a conceptual difference between *multilingualism*, which they define as "the presence in a geographical area, large or small, of more than one variety of language", and *plurilingualism*, which "refers to the repertoire of varieties of language which many individuals use" (Council of Europe, online). In considering the relevance of this distinction, it is important to note the strong influence of French speakers in the Council of Europe. In French, the terms *multilinguisme* and *plurilinguisme* have traditionally been used to describe these two different types of coexistence of several languages in a society or in an individual, respectively. However, this difference does not exist in Germanic languages such as English or German, where there has conventionally only been one term to denote all phenomena involving several languages (*multilingualism* in English, *Mehrsprachigkeit* in German).

Considering that most researchers in this field publish their work in either German or English (e.g., Jessner, 2008; Kemp, 2009; Wilton, 2009), there seems to have been an implicit agreement to give prevalence to *multilingualism* as an all-encompassing term, and avoid, therefore, the use of *plurilingualism*. Researchers as well as the European Institutions (e.g., European Union, online) prefer differentiating instead between *societal multilingualism* (when the focus is on the socio-geographical phenomenon) and *individual multilingualism* (when the emphasis resides on the individual who knows several languages). This is also in line with the distinction made previously in sociolinguistics and in bilingualism studies between societal and individual bilingualism (Widdowson, 2003).

This study will follow the trend in academic literature and use the term *multilingualism* to cover both the societal and the individual aspects of this phenomenon. Any references to multilingualism were no specification is added to denote its societal dimension should be understood as a reference to *individual multilingualism*.

3.2.1.3 Order of acquisition: L1, L2, L3

The main source of diversity in TLA comes from the increased number of languages involved, as Cenoz (2000) shows in Table 1 below. SLA assumes that the student has two languages, one dominant or first language (L1) and one second or foreign language (L2). The L1 is technically acquired first, and the L2 is learnt after the L1 either by immersion or in an instructional setting (sequential bilingualism, L1 → L2). However, cases of simultaneous acquisition of two languages are a common instance in bilingual families (simultaneous bilingualism, Lx + Ly), and intermediate patterns of acquisition are also emerging where the second language is introduced at a very early age before the first language has developed entirely.

TLA by definition involves at least three languages, which leads to an exponential multiplication of the possible combinations between the acquisition orders of these

languages. The denomination of *third language* already implies the individual having a first and second language, although current definitions of L3 suggest that these previous languages may still be being acquired at the time of learning the third one (Cenoz, 2003). According to Table 1 below, the different orders of acquisition increase from two in SLA (L1 and L2 learnt consecutively or simultaneously) to at least four when three languages are involved, and at least twelve when four languages are involved. The number of combinations will keep increasing exponentially with every new language added.

Table 1

Number of languages and order of acquisition in SLA and TLA (Cenoz, 2000, p.40)

SLA	TLA
	L1 → L2 → L3
	L1 → Lx/Ly
	Lx/Ly → L3
	Lx/Ly/Lz
	L1 → L2 → L3 → L4
L1 → L2	L1 → Lx/Ly → L4
Lx + Ly	L1 → L2 → Lx/Ly
	L1 → Lx/Ly/Lz
	Lx/Ly → L3 → L4
	Lx/Ly → Lz/Lz_1
	Lx/Ly/Lz → L4
	Lx/Ly/Lz/Lz_1

Although the ideal order would be the consecutive learning of the L1, L2 and L3 (L1 → L2 → L3), many other combinations can be theorised. For example, the three languages

may be learnt simultaneously (Lx/Ly/Lz), or two of the languages may be learnt simultaneously with a third one being learnt either before (L1 → Lx/Ly) or after these two (Lx/Ly → L3). As shown in Table 1 above, these combinations can increase if a fourth or any additional languages are added.

TLA is also characterised by reversibility (i.e., language attrition), and non-linearity (i.e., the learning process may be interrupted to learn another language, or additional languages may be introduced before previous languages have been developed to a significant level of proficiency). This leads to an even greater number of possible combinations when trying to capture the order of acquisition of the languages, making the examples in Table 1 not as straightforward as they may initially seem.

This study has assumed that students already know at least two languages, regardless of whether these languages were learnt consecutively or simultaneously. In the case of teachers, the questionnaire does differentiate between languages acquired simultaneously as mother tongues and languages learnt later on in life with the aim to investigate whether the order and setting in which teachers learn their languages is associated with any differences in their beliefs about multilingualism.

Some authors (Hammarberg, 2010; Jessner, 2008) have also questioned to what extent the L1 should refer to the first language acquired, or rather to the dominant language in a multilingual system. In TLA studies it is commonly agreed that the terms L1, L2 and L3 do not refer to the dominance of the languages in any individual's linguistic repertoire, but rather to the order of acquisition (Cenoz, 2003; Herdina & Jessner, 2002; Hufeisen, 1997; Jessner, 2006, 2008). The current study will conform to this common differentiation in TLA research, and use L1, L2 and L3 to refer to the first, second and subsequent languages learnt by any individual.

3.2.2 Focus on L3 learning

Most studies on multilingualism have focused on the processes involved in learning and using several languages, and as a consequence also on the characteristics of L3 learners and users (e.g., Aronin & Toubkin, 2002; Jessner, 2006; Kemp, 2007; Ó Laoire & Singleton, 2009). This research has been heavily based on previous models and findings in bilingual processing and learning (De Bot, 1992, 1996; Green, 1986, 1998; Grosjean, 1982, 1985, 1994, 1998, 1999, 2001; Paradis, 1981, 1987).

For example, TLA researchers embraced Green's (1986, 1998a) influential view that a bilingual person's languages are always active, independently from the language they are actually using. This view has helped understand the frequent instances of crosslinguistic interaction (CLIN) in multilinguals, that is, when they use several languages within the same communicative act, both consciously and inadvertently (CLIN is further discussed in 3.2.2.1.1 below since it constitutes one of the defining characteristics of multilingual users and learners, and therefore one of the main constructs measured in this study).

Researchers in multilingualism also found inspiration in Grosjean's (1982, 1985, 1994, 1998a, 1998b, 1999, 2001) *language mode hypothesis*, which defended the existence of two separate language networks, one for each language, where both networks would be activated all the time but to different degrees depending on factors such as the topic, the function of the language act, the communicative context, and the relationship among the interlocutors. Thanks to Grosjean's language mode hypothesis, TLA researchers found a way to explain why multilinguals seem to sometimes adopt a monolingual speech mode and deactivate almost completely their other languages, while in other instances they keep several languages activated and may make use of them through borrowings and code-switches to ensure more efficient communication (e.g., Cenoz, 2001; Clyne, 1997a, 2003; Dewaele, 1998; Ecke, 2001; Ecke & Hall, 2000; Hammarberg, 2001; Hufeisen, 1993; Ringbom, 1986).

Paradis' (1981, 1987) *subset hypothesis of language storage* has also been particularly useful to explain the frequent occurrence of CLIN instances in multilinguals. According to Paradis, all the languages of a multilingual would be stored in the same system. Elements of the same language would be linked, and the linking would be strengthened by habitual use. Multilinguals would, therefore, have one network of neural connections for each language, and all language networks would be embedded within a larger, single system of language storage, explaining why elements from one language seem to be also available to the other languages. Most importantly, Paradis (1987) argued that "the less two languages have in common, the more they are represented separately" (Paradis, 1987, p. 16), which has been widely supported by empirical findings in multilingualism showing how L3 users whose L2 is typologically closer to the L3 than their L1 would use the L2 as the most common source for language transfer (Ahukanna, Lund & Gentile, 1981; De Angelis & Selinker, 2001; Ecke, 2001; Möhle, 1989; Ringbom, 1987; Singh & Carroll, 1979; Singleton, 1987).

Building on a thorough understanding of existing bilingual processing models, Clyne (2003) designed the *model of plurilingual processing*, which is currently the only model specifically conceived to explain the processing of more than two languages. In Clyne's model, each language constitutes a network, with the different networks linked by items which are (perceived to be) common to several languages. Items are associated to a language through a language tag, and items with double or triple language tagging are the links between the networks. Using one multi-tagged item while on a certain language mode may raise the level of activation of one of the other networks, leading sometimes to language transfers. This further activation of other networks may also happen through (perceived) overlaps in the grammatical structures, prosody and syntax of the different languages. Clyne's model also includes a self-monitoring system which would ensure that each language stays at the level of activation required by the communicative context, reassessing the needs

continuously throughout the interaction and taking into consideration other factors such as identity or attitudes. This continuous activity of self-monitoring would increase the mental load, which would in turn decrease the availability of mental resources to inhibit competing alternatives from other language networks and to continue the monitoring activity itself.

Clyne (2003) built his model based on existing empirical results with multilinguals, which makes it a solid framework to understand the processes involved in L3 learning and use, and to interpret results from further research. For example, the existence of an enhanced self-monitoring system in multilinguals fits accurately with recent findings in neurolinguistics. According to some researchers (e.g., Bialystok, 2015; Bialystok et al., 2012; Colzato et al., 2008), throughout the use of languages bilinguals would be continuously engaging in processes of interference suppression (i.e., suppressing interference from the other language by focusing attention on the relevant stimuli) and online monitoring (i.e., monitoring their linguistic processing and continuously directing it towards the wished outcome). This long-term experience of intensive self-monitoring would lead to both physiological (Coggins, Kennedy & Armstrong, 2004; Luk, Bialystok, Craik & Grady, 2011; Mechelli et al., 2004) and functional (Abutalebi et al., 2012; Abutalebi & Green, 2008; Luk, Green, Abutalebi, Grady, 2011) changes in the brain, which would explain why bilinguals have proved better at general executive control functions both in verbal and nonverbal tasks (Bialystok, Craik & Ryan, 2006; Garbin et al., 2010; Emmorey, Luk, Pyers & Bialystok, 2008; Luk, Anderson, Craik, Grady & Bialystok, 2010; Prior & Gollan, 2011; Prior & MacWhinney, 2010).

3.2.2.1 What characterises L3 learning?

Building on models and findings on bilingual and multilingual processing, some authors have also attempted to devise models of multiple language learning (Aronin & Ó Laoire, 2001, 2002, 2004; Hammarberg, 2001; Herdina & Jessner, 2002; Hufeisen, 1998;

Hufeisen & Marx, 2007; Müller-Lancé, 2003; Williams & Hammarberg, 1998). Two of these models are particularly relevant for this study: the *factor model* (Hufeisen, 1998; Hufeisen & Marx, 2007) and the *Dynamic Systems Theory Model of Multilingualism* (Herdina & Jessner, 2002).

The *factor model* (Hufeisen, 1998; Hufeisen & Marx, 2007) presents a series of subsequent stages in the acquisition of several languages, and identifies the factors which may affect the learning process at each stage. The model suggests four distinct stages: the acquisition of the mother tongue (L1), the learning of the first foreign language (L2), the learning of the second foreign language (L3), and the learning of any additional foreign languages (which they refer to as Lx).

The authors argue that, when moving from one stage to the next, new factors come into play which would not have been involved in previous stages, with the exception of the neurophysiological and contextual factors specific to each learner, which would affect all the stages. Affective, cognitive and metacognitive factors would be introduced and developed in stage two, that is, during the learning of the first foreign language (L2), and include elements such as motivation, anxiety, learning styles or language learning strategies. These factors, and the way in which they have developed during L2 learning, would impact how students approach stage three, that is, the learning of any additional languages. Hufeisen and Marx (2007) used the term *foreign/L2 learning-specific factors* to refer to students' individual foreign language learning experiences and strategies as well as previous language interlanguages which would be responsible for the qualitative difference between stages two and three, that is, between L2 and L3 learning.

The factor model is useful because it establishes a clear distinction between the learning of the L1, the L2 and the L3 based on the factors that shape each learning process, and acknowledges the deployment of different cognitive and learning strategies at each stage.

However, the authors only provide a vague description of what they mean by *foreign/L2 learning-specific factors*, not specifying what these factors may involve, what they may look like in practice, or how they may actually make L3 learning differ from L2 learning.

Herdina and Jessner's (2002) *Dynamic Systems Theory Model of Multilingualism (DMM)* elaborates further on the factors that may be responsible for the differences between L2 and L3 learning. The DMM is based, as its name suggests, on the dynamic systems theory, also known as chaos theory or complexity theory, which had already been suggested by other authors to explain the complexity of SLA processes (Dörnyei, 2009; Larsen-Freeman, 1997, 2012). According to this model, the development of a multilingual system in an individual needs to be understood as a non-linear, reversible process that may change over time, interdependent of all the other pre-existing linguistic systems, and that is above all extremely complex due to the exponential multiplication of the combination possibilities of the different social, psycholinguistic and individual factors involved in language learning and use (Herdina & Jessner, 2002; Cenoz, 2000; Safont Jordà, 2005).

The DMM considers that the two main differences between the development of a bilingual and a multilingual system is the interdependence among the individual's several linguistic systems, and their experience of learning and using these linguistic systems. As a consequence, the DMM identifies two main factors which characterise L3 learning: *crosslinguistic interaction* (CLIN) and the *multilingualism factor* or *M-factor*.

Crosslinguistic interaction aims to capture the interrelation between the different linguistic systems, and includes all the perceivable and inappreciable phenomena of transfer, borrowing and code-switching that may happen consciously or unconsciously when a multilingual person uses any of their languages. The term interaction is preferred over transfer, interference or influence (used previously to describe a similar phenomenon, e.g.,

Whitney, 1881; Postman & Stark, 1969; Kellerman and Sharwood Smith, 1986) to highlight the dynamic nature of the relationship between the different language systems.

The multilingualism factor (M-factor) is understood as an overarching term to refer to all the factors which would distinguish the development of a multilingual system from that of a monolingual system. The authors identify two main elements within the M-factor: *metalinguistic awareness* (MLA) and an *enhanced multilingual monitor* (EMM). MLA would include all the cognitive and metacognitive abilities that multilinguals develop as a result of acquiring and managing several linguistic systems, namely language learning, language management and language maintenance skills. The EMM refers to multilinguals' enhanced system to monitor and correct their language(s) according to each specific communicative context. Regular use of several languages would lead to increased demands on existing monitoring mechanisms, which would make these systems develop significantly more than in a monolingual speaker (as supported by neuroscientific research, e.g., Bialystok, 2015; Bialystok et al., 2012; Colzato et al., 2008). The M-factor is considered the most defining element in a multilingual system and is expected to "have a priming or catalytic effect in TLA" (Herdina & Jessner, 2002, p. 129).

As a psycholinguistic model heavily based on empirical observations, the DMM succeeds to capture the two main elements which seem to be contributing towards the observed qualitative difference between SLA and TLA: L3 learners (1) have several linguistic systems in their minds as a result of the languages they know or have studied (which leads to CLIN), and (2) have experience learning and using their different languages (which leads to the M-factor). For this reason, CLIN and the M-factor are used in this study as the two main constructs that define L3 learning. The next two subsections discuss in some detail each of them and the findings which informed the development of the questionnaire items intended to measure each of these two constructs.

3.2.2.1.1 Crosslinguistic interaction

How bilinguals and multilinguals mix and switch between their languages has attracted the attention of researchers for decades (e.g., Albert & Obler, 1978; Postman & Stark, 1969; Weinreich, 1953; Whitney, 1881). After a thorough review of existing findings and terms to refer to this phenomenon (e.g., language transfer, language interference, crosslinguistic influence), Herdina and Jessner (2002) opted for the term crosslinguistic interaction (CLIN).

They defined CLIN as an umbrella term "to include not only transfer and interference [...] but also CS [codeswitching] and borrowing phenomena" (Herdina & Jessner, 2002, p. 29) and "other transfer phenomena such as non-predictable dynamic effects which determine the development of the systems themselves" (Jessner, 2006, p. 34). CLIN covers, therefore, all instances where one language interacts with another throughout language comprehension, processing and production. As Herdina and Jessner point out, this interaction may be conscious or not, and it may be observable in the students' performance or just happen in the speaker's head. Rather than seeing CLIN in categorical terms, Cenoz (2003) suggests to look at CLIN as a continuum: at one extreme, there would be conscious and easily detectable interactional strategies that L3 learners use when required/allowed by the communicative context; at the other extreme, there would be non-intentional, automatic (and sometimes undetectable) transfer lapses which evidence the continuous interaction of the different linguistic systems in the mind of multilingual speaker.

There seem to be many factors determining when and how CLIN takes place. In their review of these factors, Hall and Ecke (2003) provide what is possibly the most comprehensive list up to this date. They identify five different categories (learner, learning, language, event and word factors), and analyse how each of the factors in these categories can determine the nature and frequency of CLIN during language learning and use. As they

point out, most of the research so far seems to have focused on factors within the first three categories.

For example, there exists a large number of studies investigating how CLIN may be affected by linguistic typology and psychotypology (Kellerman, 1979, 1983; Hall, 1992; Matz, Teschmer & Weise, 1988; Ringbom, 1986; Cenoz, 2003), proficiency in each of the languages (Kroll & Stewart, 1994; McElree, Jia & Litvak, 2000; Ringbom, 1986, 1987; Talamas, Kroll & Dufour, 1999), motivation and attitudes towards them (Hammarberg, 2001), and the status of each of these languages within the psycholinguistic multilingual system (Meisel, 1983). Later works have also investigated factors in the fourth category regarding event-specific elements which may increase or decrease the amount of CLIN, such as the type of task (Ecke, 2001; Herwig, 2001) and level of formality of the interaction (Dewaele, 2001). Of all the possible factors, typology, recency of use, proficiency and L2 status within the multilingual system (L1, L2 or L3) have been identified as seemingly the strongest predictors of CLIN (Williams & Hammarberg, 1998; Hammarberg, 2001).

CLIN has also sparked the attention of many TLA researchers, curious to investigate how the additional languages may lead to different and increased interaction patterns among the languages of a multilingual. Clyne (2003a) noticed that L3 learners tend to transfer to their L3 those features shared by their two other languages, and that this happens at the lexical, semantic, syntactic, morphemic and phonological/prosodic level. Although some research supports the idea of conceptual transfer, that is, transfer of meaning and concepts across languages (Kecskes & Papp, 2000a, 2000b; Pavlenko, 1999), the majority of existing results point to a predominance of form-related transfer, especially stemming from the interaction of psychotypologically close languages (Ringbom, 2001). The focus on interaction at the word level has led to a large number of studies on L3 vocabulary learning, and the development and characteristics of the multilingual lexicon (e.g., Dijkstra, 2003;

Gibson & Hufeisen, 2002; Jessner, 2003; Kujalowicz & Zajdler, 2009; Lindqvist, 2009; Molnár, 2010; Ó Laoire & Singleton, 2009).

According to these studies, L3 learners do not turn only to their L1 as a comparison point for the L3; instead, they seem to continuously compare the L3 with all their other languages, which has been observed in many instances through think-aloud protocols and students' use of similar structures across all their languages (Cenoz, 2001; Clyne, 1997a, 2003a; Dewaele, 1998; Ecke, 2001; Ecke & Hall, 2000; Hammarberg, 2001; Hufeisen, 1993; Ringbom, 1986). L3 learners also appear to rely on whichever language is perceived to be typologically closer to the L3, regardless of whether this is the L1 or the L2 (Cenoz, 2001, 2003a; De Angelis and Selinker, 2001; Ecke, 2001; Ecke & Hall, 2000; Hufeisen, 1991; Ó Laoire & Singleton, 2004).

Other factors have also been investigated within TLA research on CLIN. Proficiency seems to play a relatively central role, with the L2 seeming to influence the L3 more importantly if the learner has a high level of proficiency in the L2 (Hammarberg, 2001). However, Cenoz (2001, 2003) conducted further research and concluded that typological distance is a stronger predictor of CLIN than age or proficiency level. Herwig (2001) also investigated the role of proficiency, and argued that the closer the languages are perceived to be, and the more intensively the languages need to be used either simultaneously or consecutively, the more do multilinguals struggle to keep them separate, regardless of the level of proficiency.

The manner of acquisition has also been studied as a potential factor determining the nature and direction of CLIN in multilinguals. Müller-Lancé (2003), for example, realised that participants who had studied their languages in an immersion setting would tend to make semantic associations, while participants who had learnt their languages in an instructional setting would tend to make translation associations. Williams and Hammarberg (1998;

Hammarberg, 2001) also found out from their data that when the L2 has been learnt in an instructional setting, the L2 learning mechanism is reactivated during TLA.

3.2.2.1.2 The multilingualism factor (M-factor)

According to the DMM (Herdina & Jessner, 2002, discussed above), the M-factor includes all cognitive and metacognitive abilities that the L3 learner has developed through their experience of learning and using other languages, and which they can deploy during L3 learning to make the process faster, more efficient and more meaningful. The M-factor, therefore, is a complex, multifaceted concept encompassing all observable and non-observable cognitive and metacognitive differences between L2 and L3 learning.

Herdina and Jessner (2002) identified metalinguistic awareness (MLA, i.e., an enhanced sensitivity to linguistic and metalinguistic features) and an enhanced multilingual monitor (EMM, i.e., an advanced monitoring system to manage the interaction between the languages) as the two main components of the M-factor. These components need to be seen as continuously interacting, which makes it very difficult to measure them separately or to determine to what extent certain empirical data stems from one, the other, or the interaction of both. Herdina and Jessner go as far as stating that "the M-factor can be interpreted as having the same effect on the acquisition of a third language as its component MLA" (p. 130), which shows that even the authors have difficulties establishing clear borders between MLA, EMM and their overarching M-factor.

MLA was defined as "a set of skills or abilities that the multilingual user develops due to her/his prior linguistic and metacognitive knowledge" (Jessner, 2008, p. 26) and that give them "the ability to focus attention on language as an object in itself or to think abstractly about language and, consequently, to play with or manipulate language" (Jessner, 2006, p. 42). This is also in line with previous definitions of metalinguistic awareness by Malakoff (1992) and Gombert (1992):

> Metalinguistic awareness allows the individual to step back from the comprehension or production of an utterance in order to consider the linguistic form and structure underlying the meaning of the utterance. Thus a metalinguistic task is one which requires the individual to think about the linguistic nature of the message: to attend to and reflect on the structural features of language. To be metalinguistically aware, then, is to know how to approach and solve certain types of problems which themselves demand certain cognitive and linguistic skills (Malakoff, 1992, p. 518).

> a subfield of metacognition concerned with language and its use – in other words comprising: (I) activities of reflection on language and its use and (2) subjects' ability intentionally to monitor and plan their own methods of linguistic processing (in both comprehension and production. (Gombert, 1992, p. 13).

Metalinguistic awareness, therefore, differs from language awareness in that it does not only involve declarative knowledge about languages, but also implies a certain procedural knowledge of how languages work and how they can be manipulated in the practice to achieve the desired communicative outcomes (Jessner, 2006; Masny, 1997).

MLA is "assumed to play a decisive role in monitoring and crosslinguistic interaction" (Jessner, 2006, p. 56), which is probably the reason why the EMM and MLA are so difficult to isolate from each other. Monitoring requires keeping track of progress, identifying issues and dealing with potential conflicts (Flavell, 1981), which in turn requires awareness of these challenges and developing the metacognitive and metalinguistic strategies necessary to tackle them (De Bot, 2004; Dulay, Burt & Krashen, 1982; Levelt, 1989; Wenden, 1998), both during online comprehension and production, and long-term as part of the learning process.

On the basis of this, Herdina and Jessner (2002) suggest that MLA can be seen to encompass language learning, language management and language maintenance skills, therefore involving part of the EMM under MLA. Recent studies about the development of cognitive and metacognitive abilities in TLA have discovered that L3 learners use more strategies, more often and more flexibly than L2 learners (Bobanović & Kostić-Bobanović, 2011; Kemp, 2007; Miβler, 1999; Ó Laoire, 2001; Psaltou-Joycey & Kantaridou, 2010; Rampillon, 2004). Miβler (1999) pointed out that the more language learning experience students had, the greater the number of strategies they would use, although she also noted that strategy use depended on many individual factors. Hufeisen (1998) also highlighted the key role that multilingual students attributed to their strategies to facilitate the learning of the new language. This increased and more efficient use of language learning strategies could possibly also explain why L3 learners seem to be more autonomous than their monolingual counterparts (Aronin & Toubkin, 2010; Cohen & White, 2008; Rivers, 2001).

MLA also seems to correlate and even overlap importantly with SLA definitions of language aptitude (Bialystok & Hakuta, 1994; Carroll & Sapon, 1959; Pimsleur, 1966; Skehan, 1989). For this reason, the DMM suggested that MLA may stand both for *metalinguistic awareness* and *multilingual aptitude* (Herdina & Jessner, 2002, p. 138). Supporting this idea, several studies have demonstrated that multilingual students' score significantly higher on tests of language aptitude (e.g., Ben-Zeev, 1977; Ianco-Worrall, 1972; Lasagabaster, 1997; Mohanty, 1994; Perales & Cenoz, 2002; Pinto, 1995; Thomas, 1988), showing "a greater plasticity in restructuring their internal representations of the rules governing linguistic input" (McLaughlin, 1990, p. 170). Some researchers (Robinson, 1995; Thomas, 1988) also suggest that previous language learning experience in an instructional setting may lead to higher levels of metalinguistic awareness, which may in turn help multilingual students perform better in language aptitude tests. These findings provide further

support to argue for the trainability of language aptitude, at least in the terms that language aptitude is currently being defined and measured (Bialystok & Hakuta, 1994; Carroll & Sapon, 1959; Pimsleur, 1966; Skehan, 1989), and encourage further research to explore the relationship between multilingualism and language aptitude (for a discussion, see Thompson 2013).

As Peal and Lambert (1962) put it in one of the first-ever studies to highlight the advantages of bilingualism, "intellectually [the bilingual child's] experience with two language systems seems to have left him with a mental flexibility, a superiority in concept formation [and] a more diversified set of mental abilities" (p. 20). Although Peal and Lambert did not specify any further on what they meant by these sentences, the description matches quite closely current definitions of aptitude and, by extension, of MLA.

3.2.2.2 Constructs to measure L3 learning

Following from Herdina and Jessner's (2002) model, CLIN and the M-factor are considered the two main defining characteristics of L3 learning, and are taken as the two subconstructs which help measure L3 learning in this study. As per the definition above, CLIN is measured by items stating the advantages that multilingual students have proved to have as a result of their knowledge of other languages. The M-factor is measured as an overarching construct involving features of both MLA and the EMM, as suggested by Herdina and Jessner. In the questionnaire, this is translated into items stating the advantages that multilingual students show thanks to their experience learning other languages. More details about how these two constructs are operationalised, including examples of items, are included in Chapter 5, Research Methods.

3.2.3 Focus on L3 teaching

While research on multilingualism has been around for decades, the didactic implications of multilingualism were first widely considered in the 1990s (Gajo, 2014).

Building on findings about L3 learning, over the past 30 years research has tried to determine how best to teach several languages. This led to the development of the so-called pluralistic teaching approaches to languages and cultures, and more recently to the publication of the Framework of Reference for Pluralistic Approaches (FREPA, Candelier et al., 2012). In contrast with traditional *singular* approaches to language teaching, in which only the target language or culture is considered in isolation, the term *pluralistic approaches* "refers to didactic approaches that use teaching/learning activities involving several […] varieties of languages or cultures" (Candelier et al., 2012, p. 6).

Tertiary language teaching, also referred to as L3 teaching or L3 didactics, emerged under the umbrella of the *integrated didactic approach* (Bourguignon & Candelier, 1988; Bourguignon & Dabene, 1982; Castellotti, 2001; Hufeisen & Neuner, 2004; Roulet, 1980), one of the four main pluralistic approaches (Candelier et al., 2007; Candelier et al., 2012; Gajo, 2014). The *didactique intégrée des langues,* in its original French form, postulates for integrating the learning of new languages with those languages already known by the student, including the mother tongue.

The first example of the integrated didactic approach goes back to 1687, when Johann Jacob Quentz published a language learning guide for travellers who already knew other languages. However, this approach was not given serious consideration until the 1970s, when the Council of Europe held a conference in Turku (Finland) to explore the links between the teaching of the mother tongue and of foreign languages. The conference concluded with several recommendations which are still valid over 40 years later: similarities between languages are more important than their differences, and the efforts to link the teaching of all languages in the curriculum are currently insufficient (Cavalli, 1994).

Despite this clear call for a more integrative approach to language teaching, little changed over the following thirty years. Moving away from traditional teaching methods

such as grammar translation, the new communicative approaches to language teaching advocated for the exclusive use of the target language, in isolation from any other languages students may know, including their mother tongue (Conteh, Copland & Creese, 2014; Gajo, 2014). This led to deceptive (and highly-criticised, e.g., Conteh, Copland & Creese, 2014; Cook, 1999; Phillipson, 1992) assumptions which to this day determine what many teachers consider good practice in language teaching: mixing languages leads to confusion, every effort must be made to keep students' languages separate, translation activities of any kind should be avoided, the native teacher is the best teacher, and students' progress will be a function of how much the target language is used in the classroom.

Widdowson (2003) suggests that these views are often supported by political attempts to monopolize the teaching of foreign languages, especially English but not only, by a majority of native monolingual teachers who need to assert themselves as superior over the bilingual non-native teachers to perpetuate their political and social power. Using Widdowson's (2003) words:

> […] monolingual teaching makes a virtue of necessity. It is necessary as an expedient solution to the problems of the bilingual incompetence of teachers and the multilingual competences of students. (p. 156)

Regardless of what the underlying reason may be, the truth is that "in a 'traditional' L2 pedagogy, contact remains virtual, not integrated into didactic theory and sometimes even avoided" (Gajo, 2014, p. 121).

As a reaction to this approach, which was based on the exclusion of languages other than the target language, a new approach emerged which advocated for the integration in the classroom of all the languages students know. This approach developed across different contexts and under several different names in different languages: *pédagogie intégrée* (Roulet, 1980; Tschoumy, 1983), *pédagogie inter-langues* (Herrenberger, 1999), *integrale*

Sprachendidaktik (Cathomas, 2003), *gestión cordonnée des langues* (Prudent, Tupin & Wharton, 2005) and *integrative Fremdsprachendidaktik* (Wokusch & Lys, 2007). The term *didactique intégrée des langues* in French did finally crystallise as an umbrella term for this approach (Cavalli, 1994), and was later translated into English as integrated didactic approach (Candelier et al., 2012).

Ultimately, the integrated didactic approach developed as a more time-efficient way of learning and teaching languages since an earlier age (Brohy, 2008; Cavalli, 1994). The aim is to help students establish links between a limited number of languages, namely those that they know or are in the process of learning. The mother tongue (or the language of instruction) is used to facilitate the learning of a first foreign language, and then both the first and second languages to support the learning of the third language(s). In a truly integrated didactic approach, the facilitation can also happen in the reverse direction, for example, from the L2 to the L1, and from the L3 to the L2 and L1. As Candelier et al. (2007) described it, the goal is to optimise the relationships between the languages used (and their learning) to develop a real multilingual competence (p. 8).

This optimisation would lead to what some have called an "*économie didactique*" [greater didactic efficiency] (Cavalli, 1994, p. 19; Wokusch, 2008, p.12) of both learning and teaching processes. In the case of learning, the aim will be for students to develop a stronger basis of linguistic knowledge as well as an enhanced metalinguistic awareness. In turn, this would lead to a greater efficiency at the cognitive level: students would be supported to establish links between their languages, helping them create cognitive bridges and understand how and when transfers can be done. The integrated didactic approach would also lead to greater teaching efficiency, deploying pedagogical practices that aim for coherence and mutual reinforcement of the languages, and exploiting all the resources at the teachers' and learners' disposal to facilitate and speed up the learning process (Cavalli, 1994).

3.2.3.1 What characterises L3 teaching?

Tertiary language teaching or L3 didactics (*Tertiärssprachendidaktik* in the German original) is usually considered as a restricted version of the integrated didactic approach which deals specifically with the teaching of third languages (Brohy, 2008; Candelier & Castellotti, 2013; Candelier et al., 2012; Neuner, 2009). Most of the work in the theorising and practice of L3 didactics has been conducted by Neuner (Kursisa & Neuner, 2006; Neuner, 2004, 2009; Neuner et al., 2008, 2009), with the majority of his publications only available in German, which may arguably have reduced teachers' awareness of this approach in non German-speaking areas.

Neuner's (2004) work focused on two main aspects of L3 teaching: its objectives, and its guiding methodological principles. The two following subsections discuss these two aspects in some detail since they constitute the main literature specifically on tertiary language teaching, and significantly informed how this key element in multilingualism was operationalised in this study.

3.2.3.1.1 Objectives of L3 teaching

According to Neuner (2004), the objectives of L3 teaching are twofold: to encourage the transfer of linguistic knowledge from the other languages the student knows, and to promote also the transfer of strategies and competences developed during the process of learning and using the other languages. Effective transfer of both knowledge and learning experiences can, therefore, be considered as the main objective of L3 didactics.

Transfer of linguistic knowledge in L3 teaching will typically occur from the L1 and L2 to the L3, although other L3s can also be the origin of transfers. The extent to which each of the languages in a students' multilingual system provokes or allows for transfer into the L3 is partly related to the typological and psychotypological distance between the languages. As discussed above in section 3.2.1.1, linguistic transfer tends to happen between languages

which are perceived as typologically closer (Cenoz, 2003; Ringbom, 2001), while conceptual transfer seems to occur depending on the sociocultural proximity that each of the languages is associated with (Pavlenko, 1999; Kecskes & Papp, 2000a, 2000b).

Tertiary language teaching should focus on helping students create “transfer bridges” between their languages (Neuner, 2004, p. 25) by encouraging them to discuss intensively their observations about the L3 and to hypothesise about similarities and differences between the L3 and their other languages. Even if the teacher does not have an advanced knowledge of the students’ other languages, promoting this type of discussion in the classroom will make students more aware of their own linguistic knowledge across their languages, and provide the teacher with a better understanding of the other languages their students know, which can be beneficial in the on-going process of teaching the L3.

Transfer of strategies and competences from previous language learning is also central to L3 teaching. The teacher should not only support the creation of links across languages, but also encourage students to relate previous language learning experiences to the L3 learning process. In other words, teachers need to guide their students in the development of an “awareness of language learning” (Neuner, 2004, p.26).

In L3 teaching, students should be helped to reflect critically on their own experiences of using and learning the L1 and the L2, identify which strategies worked best and why, recognise the competences and linguistic aspects they developed more easily and those which they struggled with, and discuss how they can use this new awareness of their own language learning processes to help them progress more efficiently through the learning of the L3. The continuous analysis and reflection on their own learning styles and practices, encouraged by regular discussion in the classroom, will inevitably make students more autonomous learners and more effective users of their languages, an ability that they will then be able to deploy should they need to learn another language later in their lives.

3.2.3.1.2 The five principles of L3 didactics

According to Neuner (2004, 2009), there are five general didactic principles that should underlie L3 teaching. The first principle regards cognitive learning and the development of both language awareness and language learning awareness. L3 teaching should not only aim to increase students' awareness of their own knowledge about languages (declarative knowledge) but also of their own language learning processes (procedural knowledge).

Neuner (2004, 2009) argues that L3 teaching should nurture a "culture of thinking aloud in the classroom" (Christ, 2000, p. 6) in which students can discuss their observations about the L3 in comparison with their other languages, share their language learning experiences, and explain their strategies to make the L3 learning process more efficient. This conscious process "turns learners into active discoverers of the language worlds in their own minds and of their own personal language learning processes" (Neuner, 2004, p. 28).

The second principle focuses on understanding as the basis for learning. Understanding involves information processing, especially perception, integration and anchoring of new information. In L3 learning, students seem to go through a silent process of analysing the L3, identifying patterns and comparing them to those of other languages, making assumptions about the L3 based on their other knowledge of other linguistic systems, classifying and organising the new information, and finally anchoring this new learning to existing knowledge networks which will allow for easy retrieval whenever needed. The role of L3 teaching would, therefore, include helping students verbalise these silent processes of understanding. By raising students' awareness of their own learning processes, L3 teaching will be actively developing students' autonomy and facilitating the deployment of these same mechanisms for the learning of further languages in the future.

The third principle regards the orientation of the content covered in L3 teaching. Given that the L3 is the third language learnt by chronological order, most L3 learners will be older than when they learnt their L2. For example, in a typical school context, L3 learners are teenagers who have a broader set of learning experiences, a more advanced command of cognitive and metacognitive abilities, and a different learning behaviour focused more on cognitive processing than on imitation.

Rather than repeating activities and topics similar to those students experienced when learning their L2 years before, L3 teaching should provide new, exciting and challenging content about topics students may be genuinely interested in, for example, doing a student exchange, finding a job, meeting your foreign flatmate's parents, and so forth. Linking with the first and second principles, some of this content can also revolve around language learning processes and linguistic phenomena in either the languages they know or other unknown languages, expanding their ability to understand and discuss issues related to their own multilingualism.

The fourth principle could be seen as an extension of the second and third principles since it regards the orientation of texts used in L3 teaching. Considering L3 learners older age, more advanced cognitive processing and knowledge of other linguistic systems, L3 teaching should exploit the potential of texts as one of the most valuable tools in L3 learning. Texts should aim to develop both global and detailed comprehension skills, even when the level of the text may be higher than students' proficiency. In this case, students should be encouraged to use their own linguistic knowledge to make sense of texts, especially if they are in a topic with much shared vocabulary with the other languages they know.

L3 teaching should also focus on tasks based on texts, such as summarising, completing, commenting on, redrafting from a different viewpoint, and so forth, and encourage students to inductively explore their own language systems by providing for

example parallel texts in two languages to either identify common features or discuss differences across the different languages. Finally, L3 teaching should also expose students to different, more advanced text types, and promote the active comparison of features within one same genre across students' different languages, for example, letters, emails, house advertisements, curriculum vitae, and so on.

Finally, the fifth principle discusses the "economy in the learning process" (Neuner, 2004, p. 31), referring to the enhanced learning efficiency observed in many L3 learners, and which other authors had already identified in the integrated didactic approach (Cavalli, 1994; Wokusch, 2008). L3 learners in secondary education tend to have fewer instruction hours than in their L2, and adult learners have usually a large number of commitments outside the language classroom (e.g., job, family, hobbies, etc.), which limits the time available for L3 learning. For this reason, L3 teachers need to come up with more efficient teaching techniques which facilitate the L3 learning process and eventually require students to invest less time and effort to achieve the same results. For example, vocabulary teaching could start by identifying the cognates which are similar to the other languages known by the students, and then just focus on the slight differences (e.g., spelling differences, pronunciation) between similar words, and on practising those terms which are different in the L3.

L3 teaching should also help students identify areas of interference between their languages and provide extensive practice on the elements of the L3 which may be problematic due to these interferences (e.g., pronunciation, expressions, verb tenses). Finally, L3 teachers should also encourage their students to reflect on and discuss their language learning style and strategies, suggest new strategies which may be useful to facilitate specifically the learning of the L3, and provide guidance for students to take responsibility for their own learning and become more autonomous learners beyond the language classroom.

3.2.3.1.3 Important considerations regarding L3 teaching

Jessner claims that "teaching English as L3 is not teaching English as L2" (Jessner, 2006, p. 136). Although this statement refers specifically to English as an L3, a major focus of multilingualism research among German-speaking researchers in Europe (Hufeisen & Neuner, 2004), the claim can be extended to the teaching of any other L3s.

L2 teaching does not try to teach the L2 pretending that it is an L1 – instead, it turns to SLA research for advice and bases pedagogical decisions on empirical evidence about how L2s are learnt. Following this same logic, L3 teaching cannot just replicate L2 teaching methods. L3 teaching needs, instead, to account for the specific learning processes involved in L3 learning and focus on how to enhance and facilitate these processes. Neuner's (2004) five principles of L3 didactics aim precisely at shedding some clarity on how adequate L3 teaching could empower students to learn the L3 more efficiently.

As Brohy (2008) put it, the main notion underlying L3 teaching is that if we only have one brain, we have to start by recognising that any learning needs to be integrated into a pre-existing network of knowledge, competences, behaviours and learning processes (p. 9). For this reason, the principles of L3 teaching are all heavily based on using students' other languages and previous language learning experiences as a scaffolding tool to facilitate and enhance the L3 learning process.

As a concluding remark, it is worth noting that, in order to implement an L3 teaching approach that follows the principles described above, teachers will necessarily need to know other languages besides the target language they are teaching. This experience will not only be necessary to help students identify and reflect on crosslinguistic phenomena, but also to understand and discuss the L3 learning process that their students are going through and the most effective strategies to enhance these processes. The profile of the teacher who teaches

L3s is explored in more detail in 3.2.4 below, as well as the criteria that teachers need to meet to be able to implement Neuner's (2004) five principles of L3 didactics.

3.2.3.2 Constructs to measure L3 teaching

Following from the discussion above, there are two priorities which emerge in L3 teaching: exploiting students' knowledge of other languages, and maximising the cognitive and procedural benefits of having learnt languages before. In this study, each of these two priorities is devoted a separate section in the questionnaire, and measured by two constructs.

In the first case, the two constructs involve using languages in the L3 classroom, and focus on whether the use of these other languages is (1) to facilitate and speed up the L3 learning process, or (2) to help students become more effective multilingual communicators. As argued by Neuner (2004, 2009), these are the two main goals of incorporating students' other languages into the L3 classroom.

The second priority regards the role of previous experience of learning languages and understanding how this experience can be applied to enhance L3 learning and teaching. The two constructs used to measure this priority involve how teachers' own experience learning languages can help them (1) promote crosslinguistic connections between the L3 and their students' other languages, and (2) understand better the language learning process that their students are going through.

The reason behind the division of L3 teaching into two separate sections in the questionnaire is that, in the strictest sense, any teacher can use other languages in the L3 classroom. Even if they are monolingual, they may still have knowledge about other languages which they can deploy to help their students throughout the L3 learning process. However, only teachers who have experience learning and using other languages will be able to implement an L3 teaching approach in line with Neuner's (2004, 2009) five principles, that is, not just based on encouraging crosslinguistic connections, but also on using their own

experiences of learning and using languages to inform their teaching and guide their students through the process they have gone through themselves. Therefore, the second priority is informed not only by Neuner's principles, but also by the profile and role of the multilingual L3 teacher discussed in the next subsection.

3.2.4 Focus on the L3 teacher

3.2.4.1 The multilingual teacher

Studies focused on the L3 teacher are even rarer than those on L3 didactics. One of the few exceptions is Jessner's (2008) review article about L3 teaching, where she identifies what she calls the *multilingual teacher* as a key element in L3 learning. Interestingly, the concept of the multilingual teacher was not created within TLA research. On the contrary, it was first introduced in English language teaching (Ellis, 2002, 2004, 2006, 2012, 2013) as a more complex version of the bilingual teacher who was able to empathise with the learning processes that learners were going through, and who could understand more deeply the difficulties and challenges of their students (Widdowson, 2003).

Following from the recent surge in studies on L3 learning (see 3.2.2 above), some authors have also expressed the need to reconsider the role of the teacher in TLA (Aronin & Ó Laoire, 2003; Cenoz, Hufeisen & Jessner, 2001; Griva & Chostelidou, 2012; Jessner, 2008). In this line, Jessner (2008) recovers the term *multilingual teacher* and, similarly to the way she refers to the learner of third languages as the multilingual learner, she uses the term multilingual teacher to refer to teachers engaged in L3 teaching. She describes this teacher as someone who is multilingual, who teaches several languages, who is actively engaged in learning further languages, and who has, therefore, accumulated a series of personal experiences in the L3 learning process that they can share and actively discuss with their students. Furthermore, Jessner's multilingual teacher would not be familiar just with SLA principles but would have also attended teacher training courses with an emphasis on

multilingualism and TLA, as well as intercultural education and communication (Hufeisen, 2005; Jessner, 2008; Rost-Roth, 2004).

The idea that a teacher with experience learning languages will be better able to direct their students' learning process is not new in the field of language education (e.g., Lortie, 1975; Lowe, 1987). In the past decades, some experiments took place in what was called Structured Language Learning Experiences, which aimed to expose in-service or prospective language teachers to the experience of learning a foreign language so they could better understand the process their students had to go through (e.g., Bailey et al., 1996; Bailey, Curtis & Nunan, 2001; Bell, 1995; Birch, 1992; Flowerdew, 1998; Lowe, 1987; McDonough, 2002; Waters, Sunderland, Bray & Allwright, 1990). However, the immense majority of these courses were short, at beginner level, and somehow artificial, which failed to provoke the deep insights and reflection observed in bilingual or multilingual teachers.

According to Ellis (2012), awareness of what language learning really means is "only achievable through direct experience and reflection upon that experience" (p. 15). With this premise in mind, she conducted a large interview study with 31 monolingual and multilingual teachers of English in Australia, which provides abundant evidence of the advantages that multilingual teachers seemed to have over their monolingual peers (Ellis, 2002, 2004, 2006, 2012, 2013). Ellis' work provides the most detailed and clear account to date of how multilingual teachers benefit from their own experience learning and using languages to enrich their teaching approach and enhance their students' learning experience, be this through the L2 or L3 learning process. According to her results, multilingual teachers are better able to understand the language learning process and the difficulties that their students experience, supply more information about the target language in relation to other languages, and can suggest language learning strategies more effectively and more adapted to students' learning styles.

More recently, Haukås (2015) conducted a similar study with 12 L3 teachers in Norway, and also identified a large number of instances in which teachers seem to deploy their own experience and knowledge of other languages to help their students learn the L3 more effectively. As Conteh, Copland and Creese (2014) put it, existing research helps us understand "how the teachers' personal and professional experiences of multilingualism provide them with pedagogic resources and at the same time affirm their initiatives as bilingual/multilingual professionals" (p. 162).

3.2.4.2 The multilingual versus the L3 teacher

It is easy to imagine that not all the teachers currently engaged in processes of L3 teaching will meet Jessner's demanding criteria to qualify as multilingual teachers. While the adjective multilingual may be appropriate to refer to students engaged in the learning of a third language (and who are, by definition, in the process of becoming multilingual), using this same adjective to refer to the teachers of multilingual learners may just lead to confusion.

For this reason, this study suggests that a differentiation should be made between a *multilingual teacher* and an *L3 teacher.* A multilingual teacher is a teacher who knows several languages and is, therefore, a multilingual person himself. Contrary to what Jessner (2008) suggests, it does not seem important whether they teach all of the languages they know or only one of them. This multilingual teacher may be teaching third languages to multilingual learners, or may be simply teaching a second language to monolingual learners, as it was the case of the teachers in Ellis's (2006, 2012) study. In both situations, this teacher will benefit from a number of cognitive and practical advantages regarding the processes of learning a foreign language that they will most probably be able to exploit to support and enhance their teaching.

Contrary to the multilingual teacher, who may or may not teach L3s, an *L3 teacher* works actually teaching a third language to multilingual learners. However, the L3 teacher

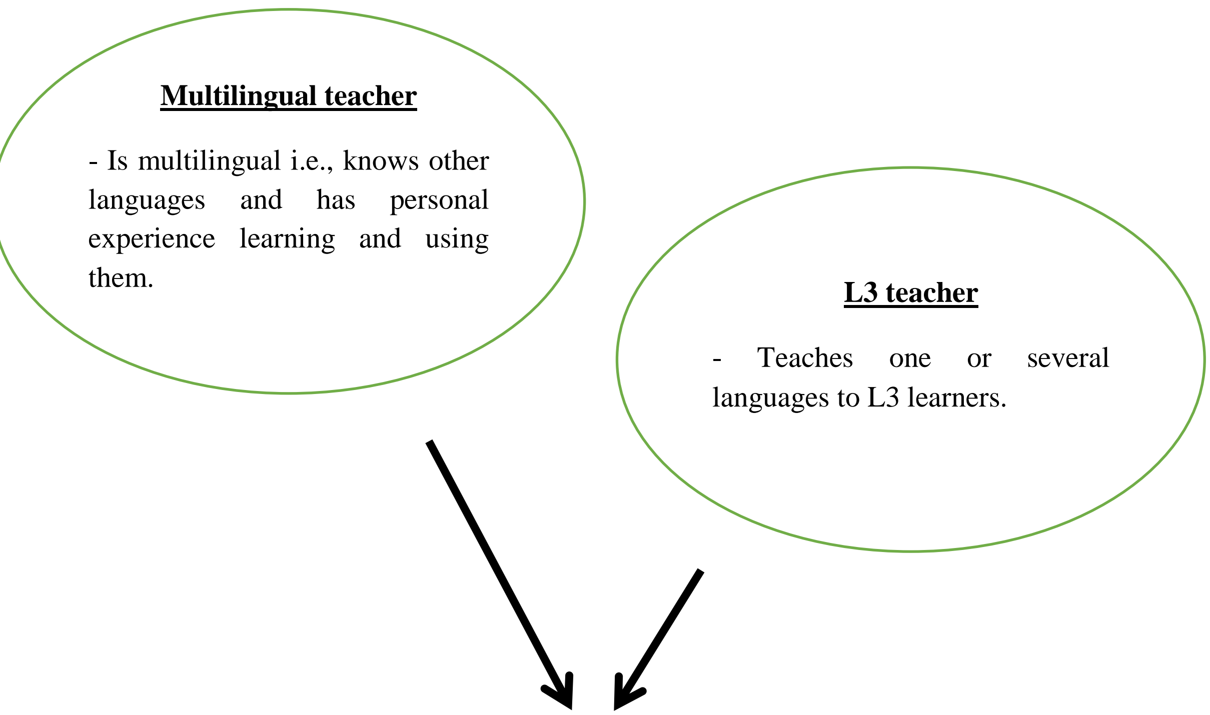
may or may not be a multilingual person. Ideally, as Jessner (2008) also points out, L3 teachers should have received specialized training in TLA and L3 teaching, which would allow them to understand better the L3 learning process their students are going through. This training should help them recognize and address the difficulties faced by their multilingual students, even if they cannot relate personally to these processes because they have never experienced them first hand.

3.2.4.3 What characterises the ideal L3 teacher?

Following from this discussion, the ideal L3 teacher would be what this study calls a *multilingual L3 teacher*. This teacher would be a multilingual person, therefore with experience learning foreign languages and advanced practical knowledge of multilingual use and learning processes. They would have also received specialized training on L3 learning and teaching, and would therefore be the best equipped to work with multilingual learners to guide them and help them through the process of acquiring a third language. Figure 5 below summarises the characteristics of the multilingual and L3 teacher, and shows their desirable evolution into the multilingual L3 teacher.

The profile of the multilingual L3 teacher as described in Figure 5 would be slightly different from Jessner's (2008) multilingual teacher. In both cases, teachers have to be multilingual, actively engaged in using several languages, able to share their different experiences of learning and using foreign languages with their students, and have received specialised training in TLA. However, while Jessner establishes as a requirement that the multilingual teacher teaches several languages, the multilingual L3 teacher suggested in this study could just teach one language. Furthermore, Jessner does not specify whether the several languages are L2s or L3s, while the multilingual L3 teacher needs by definition to teach languages as L3s. Finally, Jessner included as a requirement that teachers must not only be engaged in using their languages but also that they are still learning them. The profile

of the multilingual L3 teacher presented here does not require this last condition, since there is no evidence that a teacher who is still learning a foreign language will benefit from any advantages over a teacher with extensive experience learning languages but who is not actively learning one while teaching.



Multilingual L3 teacher

- Is multilingual i.e., knows other languages and has personal experience learning and using them;
- Teaches one or several languages to L3 learners;
- Knows about other languages, particularly those known by the students;
- Has specialised training in L3 learning and teaching.

Figure 5. Summary of the characteristics of the multilingual teacher, the L3 teacher, and the multilingual L3 teacher.

The profile of the multilingual L3 teacher described here is used to structure and operationalise the section of the questionnaire regarding the L3 teacher. For simplicity and consistency with the other two elements of multilingualism measured in this study (i.e., L3 learning and L3 teaching), the label *L3 teacher* is used throughout the rest of the study to refer to this profile of the multilingual L3 teacher. The only exception is the title of this dissertation, where the label *L3 teachers* is used purposely to describe the actual population of participants, whose only common feature was to be teaching an L3. Subsection 6.3.3 below provides more details and discussion on the extent to which L3 teachers in this study conform to the profile of the multilingual L3 teacher.

3.2.4.4 Constructs to measure the L3 teacher

The L3 teacher is measured in the questionnaire by one section comprising four separate constructs. These constructs are based on the recommended profile of L3 teachers, which corresponds with what Figure 5 above described as the multilingual L3 teacher. This profile includes (1) knowledge of and about other languages, (2) experience learning and using other languages, and (3) training in TLA. A fourth construct was added to measure the importance that teachers attach to training in SLA, mainly with the aim to compare responses to this construct with those to training in TLA.

3.3 Teachers' Beliefs

3.3.1 Defining teachers' beliefs

Teachers' beliefs have emerged as one of the most important elements within research on teacher cognition (Borg, 2006, 2009; Pajares, 1992). However, not all the studies claiming to investigate teachers' beliefs have defined beliefs in a consistent way. The following subsections review existing definitions and understandings of teachers' beliefs in the frame of the two main questions discussed in the literature: how beliefs differ from knowledge, and

how to explain beliefs' non-consensuality. This discussion is followed by a working definition of teachers' beliefs specific for this study.

3.3.1.1 Beliefs versus knowledge

Many researchers in teachers' beliefs have raised questions about the extent to which knowledge and beliefs are cognitively separate in teachers' minds (Deford, 1985; Clandinin & Connelly, 1987; Clark and Peterson, 1986; Harvey, 1968; Munby, 1982; Nisbett & Ross, 1980; Pajares, 1992; Stern & Shavelson, 1983; Shavelson & Stern, 1981). Although from a philosophical viewpoint there seem to be strong arguments claiming that knowledge and beliefs are separate and distinctly different (Fenstermacher, 1994; Plato, 380 BC), empirical studies in education do not support these claims. On the contrary, repeated efforts to distinguish teachers' knowledge and beliefs have been inconclusive (Caspari, 2003; Kagan, 1990; Verloop, van Driel, & Meijer, 2001). As Grossman, Wilson and Shulman (1989) put it, "while we are trying to separate teachers' knowledge and belief about subject matter for the purposes of clarity, we recognize that the distinction is blurry at best" (p. 31).

Authors such as Clark and Peterson (1986), Munby (1982), Nisbett and Ross (1980), Stern and Shavelson (1983) and Shavelson and Stern (1981) hypothesised that teachers' beliefs would act as a filter which would determine how decisions are made in the classroom and the ways in which new knowledge is interpreted and assimilated. Elaborating on this idea, Nespor (1987) argued that beliefs are characterised by what he called an existential presumption: beliefs seem a matter of fact to their holders and their validity or veracity are not questioned. When the reality is not pleasant or easily acceptable to the individual, beliefs can represent an ideal alternative to that reality. In many cases, it is easier for the human mind to develop and accept beliefs about this alternative situation than accepting the reality as it is. This is what Nespor described as the alternativity of beliefs. Furthermore, he argued that beliefs have stronger affective and evaluative elements than knowledge, which makes

them determine more powerfully what teachers focus their attention on and the amount of energy invested, as it has been found to be the case also with self-efficacy beliefs (Bandura, 1986).

In a large-scale longitudinal study to explore the cognition of eight teachers of English as a Second Language (ESL), Woods (1996) concluded that the constructs of “knowledge”, “assumptions” and “beliefs”, which seemed to be theoretically distinct, emerged from the data as “points on a spectrum of meaning” (p. 195) rather than as separate elements in teachers’ minds. In light of these results, Woods suggested a new hypothetical and unidimensional construct which he referred to as “BAK [beliefs, assumptions, knowledge], a construct analogous to the notion of schema, but emphasizing the notion that beliefs, assumptions and knowledge are included” (p. 197). Since then, many authors have supported the idea that “in the mind of the teachers, components of knowledge, beliefs, conceptions, and intuitions are inextricably intertwined” (Verloop, van Driel, & Meijer, 2001, p. 446).

3.3.1.2 Beliefs’ non-consensuality

Building on the discussion about beliefs versus knowledge, Nespor (1987) introduced the idea of beliefs’ non-consensuality. He observed that, while knowledge systems seem to be rational and open to critical evaluation, belief systems are not bound to any logical examination or general consensus, and, most importantly, sometimes they are not even consistent with other beliefs.

Rokeach (1968) suggested that these discrepancies between beliefs are easier to explain if beliefs are understood as organised in what he called *belief systems*. According to Rokeach, a belief system is defined "as having represented within it, in some organized psychological but not necessarily logical form, each and every one of a person's countless beliefs about physical and social reality" (p. 2). Within the belief system, beliefs differ in intensity and power, varying along a central-peripheral dimension where the more central a

belief is, the more it resists change. Stronger beliefs would override weaker beliefs located in more peripheral levels of the system when guiding decision-making processes and behaviour, which would explain why individuals sometimes hold contradicting beliefs about one object, and how one of those beliefs eventually determines the individual's actions.

Rokeach (1968) also argued that belief strength and centrality depended to a large extent on connectedness: the more connected a belief is to other central beliefs, the stronger it will be. For example, beliefs connected to other beliefs regarding the individual's identity or events experienced by themselves (i.e., underived beliefs) will be stronger than those related to what others have told us that they have experienced (i.e., derived beliefs).

Nespor (1987) supported this idea, and highlighted how the power of beliefs seems to reside greatly on their episodic nature, that is, the interpretation of previous episodes or events determines how new events are perceived and assimilated. In the case of teachers, Nespor suggests that a "crucial experience or some particularly influential teacher produces a richly-detailed episodic memory which later serves the student as an inspiration and a template for his or her own teaching practices" (p. 320). The idea of guiding memories which determine teachers' behaviour has been empirically corroborated by several studies (Calderhead & Robson, 1991; Eraut, 1985; Goodman, 1988).

3.3.1.3 Teachers' beliefs: working definition

As per the discussion above, beliefs have a component of knowledge, but are more subjective, not necessarily coherent with reality or with other beliefs, and stronger when based on our own experiences, especially if they are interconnected with other strong beliefs. Harvey's (1968) definition of teachers' beliefs seems to encompass most of these elements. He defined teachers' beliefs as "a set of conceptual representations which signify to its holder a reality or given state of affairs of sufficient validity, truth or trustworthiness to warrant reliance upon it as a guide to personal thought and action" (p. 660).

Based on this definition, in this study *teachers' beliefs* should be understood as everything that teachers believe, know, think and feel about the given constructs, including their intuitions and assumptions. They are not necessarily knowledge or facts, but rather representations of the reality created in teachers' minds based on complex affective and episodic structures. These representations have an absolute value for teachers, regardless of how logical or coherent these may be with the reality or with other beliefs, and ultimately act as the strongest predictors of teachers' decisions and actions (Borg, 2009; Ernest, 1989; Nespor, 1987; Pajares, 1992).

3.3.2 Teachers' beliefs in second/foreign language education

Research specifically about the beliefs of language teachers has attracted the attention of many authors (Borg, 2009). Considering the purpose and scope of the current study, the following subsections will discuss in some detail works regarding (1) teachers' beliefs about language learning and teaching; (2) the impact of teacher education on language teachers' beliefs; and (3) the congruence (or lack thereof) between language teachers' beliefs and practices.

3.3.2.1 Teachers' beliefs about language learning and teaching

All teachers have first been students, and the many hours of exposure to teaching throughout their lives seems to help them develop a very clear idea of what good teaching should look like (Bailey et al., 1996; Wallace, 1991). This is what Lortie (1975) called the apprenticeship of observation, and it is argued to have an unparalleled power determining teachers' beliefs and behaviours in the classroom (Freeman, 1992; Kennedy, 1991).

However, while all teachers of a given subject have typically been students of that subject at some point in their lives, not all language teachers have automatically been language learners before. This is especially the case of monolingual native speaker teachers of their mother tongue, who have by definition no language learning experience at all, be it in

the target language or in any other foreign language. This lack of experience learning languages will inevitably affect their understanding and beliefs about the language learning process, and importantly hinder their ability to fully relate to the learning process their students are going through (Medgyes, 1983, 1992, 1994; Widdowson, 2003). Therefore, considering the important role of previous language learning experience in teachers' beliefs, some studies have looked at the relationship between teachers' beliefs and their own experience learning languages.

Brown and McGannon (1998) and Bailey et al. (1996) explored the beliefs that language teacher trainees hold about language learning based on their own experiences as language students. In both studies, the results show that pre-service teachers do hold strong beliefs about what leads to successful language learning even before starting their teacher training, regardless of whether these beliefs are supported or contradicted by empirical findings in SLA.

Going a step further, Johnson (1994) and Numrich (1996) were able to provide interesting insights into the possible interactions between teachers' language learning experiences, beliefs and actual teaching practices. In her study of four pre-service ESL teachers in the USA, Johnson discovered that instructional decisions were strongly guided by teachers' memories of their own experiences as language learners. Similarly, Numrich found that teachers' decisions regarding which instructional strategies to promote in the language classroom were based on teachers' own positive experiences of these strategies as language learners. These results confirm that teachers hold strong beliefs about language learning and teaching even before they enter the teaching profession, and these beliefs seem to be heavily rooted in their own experiences as language learners.

Ellis's (2004, 2006, 2012, 2013) work provided probably the most insightful contribution to our understanding of how teachers' beliefs are shaped by their language

learning experiences. In her qualitative study with 31 teachers in immigrant ESL centres in Australia, Ellis was able to confirm existing claims arguing that teachers who know other languages have an advantage over monolingual teachers (Medgyes, 1983, 1992, 1994; Widdowson, 2003). Bi-/multilingual teachers showed an enhanced language awareness to understanding how the English language works, had more positive beliefs about the process of learning and using a foreign language, and had a better understanding of what it feels like to grow up or to become a multilingual and multicultural person. These results provide further empirical evidence of the impact that teachers' own experience as language learners and users has on the development of their beliefs about successful language learning and teaching.

3.3.2.2 Impact of teacher education on language teachers' beliefs

The goal of teacher education is to prepare teachers to be as effective as possible in helping students learn the subject matter. However, when teachers enter training programmes they are not brand new machines ready to be programmed according to current teaching approaches and methodologies. On the contrary, they bring a whole array of beliefs about how successful language learning takes place and what good teaching should look like, partly shaped by their own learning experiences, as discussed in the previous subsection.

The question is whether existing beliefs could be somehow altered so that they would guide teachers' behaviours in the most meaningful and educationally effective way. In order to answer this question, it is worth drawing on existing findings about conceptual change, namely on Piaget's (1952) theory of adaptation. This theory suggests that changes in our understanding of the world could happen by either assimilation or accommodation processes. Assimilation would happen when the new information received can be easily incorporated to already existing schemas and, in the case of beliefs, to existing belief systems. When the new information is drastically different, it requires the whole schema and/or belief system to

restructure itself in order to accommodate this new information. Accommodation is, therefore, a more intensive process than assimilation, and it requires a more radical change in the way reality is perceived and understood.

In their study with science students, Posner, Strike, Hewson and Gertzog (1982) explored the different stages involved in conceptual change, which would roughly correspond to Piaget's accommodation. These authors discovered that, before students were ready to accommodate the new information and radically change their understanding of the subject matter, they first needed to realise that the new information was actually different from their previous understanding, and then that this new information had to be somehow reconciled with their existing schema. Only when students really wanted to incorporate this new information and perceived their efforts to assimilate it as unsuccessful, they would engage in the process of accommodation, restructuring their knowledge and beliefs as to integrate the new information. Interestingly, they also found that even after the new information has been accommodated and conceptual change has taken place, the new beliefs will only be kept after they have been tested and found effective.

These findings were later supported by Guskey's (1986) study with teachers to understand why most staff development programmes failed to bring about changes in teachers' beliefs and attitudes. He observed that trying the new techniques and finding them useful in improving students' achievement would lead teachers to enthusiastically change their beliefs and attitudes. However, this change was not observed in teachers who did not try the given technique, or who tried it but did not perceive an improvement in their students' achievement. On the basis of these results, Guskey concluded that change in beliefs may follow change in behaviour, rather than precede it.

In the field of language education, Borg (2005), MacDonald, Badger and White (2001), Peacock (2001), and Urmston (2003) conducted separate studies with English as a

Foreign Language (EFL) teacher trainees. Despite the different instruments used to measure teachers' beliefs, the varying lengths of the training programmes, and the different educational and geographical contexts, the four studies reached similar conclusions: participants' beliefs did not change significantly nor consistently over the duration of the teacher training courses.

Rather than looking at the change in the content of beliefs, Cabaroglu and Roberts (2000) investigated the processes in belief development in 20 teacher trainees of modern languages in a one-year postgraduate certificate. Their results suggest that throughout the training programme students analysed the importance of existing beliefs, re-ordered them according to this importance, and reversed some of their beliefs to adopt contrary views to those initially held. By focusing on the process of belief change rather than on the product, Cabaroglu and Roberts contradict findings from the studies discussed in the previous paragraph, and offer possibly a more realistic understanding of how teacher training programmes may influence teacher trainees' beliefs about language learning and teaching.

These results can also be interpreted from the perspective of Rokeach's (1968) belief systems (see 3.3.1 above). Rather than changing beliefs, these results suggest that teacher training courses could help reshape belief systems around key educational constructs, therefore reshuffling the strength and importance of existing beliefs, and ultimately impacting on teachers' actions.

Finally, it is important to consider the results from the studies in this subsection with those discussing teachers' beliefs about language learning in the previous subsection. While teacher training programmes do not seem to be very effective at changing teachers' beliefs, research actually suggests that teachers' language learning experiences may have a much stronger influence on their beliefs than teacher education (Kagan, 1992; Richardson, 1996). A plausible explanation for these findings could come from Rokeach's (1968) conception of

underived beliefs, and how beliefs built upon teachers' own personal experiences (of language learning, in this case) are generally stronger than derived beliefs based on other people's experiences (transmitted, for example, through teacher training programmes).

3.3.2.3 Congruence between language teachers' beliefs and practices

Research in general education has concluded that teachers' beliefs are probably the strongest predictor of teachers' instructional behaviours in the classroom (Borg, 2009; Ernest, 1989; Nespor, 1987; Pajares, 1992). In foreign language teaching, several studies have investigated the alignment of teachers' practices with their stated beliefs in the context of grammar teaching (Basturkmen, Loewen & Ellis, 2004; Farrell & Lim, 2005; Ng & Farrell, 2003), reading instruction (Collie Graden, 1996) and writing instruction (Burns, 1992). Results from these studies showed different degrees of consistency between teachers' stated beliefs and observed practices, with longer teaching experience increasing the level of congruence between beliefs and practices.

3.3.3 Teachers' beliefs in bilingual and multilingual contexts

To date, only limited research has investigated teachers' beliefs in bilingual and multilingual contexts. This subsection presents this research, highlighting similarities with the current study as well as theoretical and methodological limitations which informed its research design.

Several studies have investigated the beliefs of teachers who work in bilingual educational contexts. Chimbutane's (2013) research is conducted in a bilingual education programme in Mozambique. The aim is to explore teachers' beliefs and practices about code-switching between Portuguese and Changana, an African language spoken in Mozambique. His results show that teachers hold beliefs in line with both their teacher training programmes and their own language learning experiences. This study also shows that teachers' beliefs about the use of African languages in the classroom seem to be closely

related to the country's educational policy history, where for a long time African languages were banned from schools.

Although in a completely different political and social context, Vaish (2012) reached similar conclusions regarding the influence of historical language and education policies in the beliefs teachers hold about the use of other languages in the foreign language classroom. Vaish investigated the beliefs that teachers working on reading programmes in bilingual schools in Singapore hold about bilingualism and about the use of students' mother tongue (L1) in the classroom. Her results show that, despite teachers thinking that their L1 is useful when learning English, they report not allowing their students to use this language in the classroom, probably influenced by national educational policies and teacher training programmes which strongly discourage the use of the L1. Vaish's results also suggest that the more years of experience teachers have, the more confident they may feel about the use of the mother tongue in the English classroom.

There are several reasons which make Vaish's (2012) paper most relevant for the current study. First, Vaish's aims are similar to those of this study, although his focus is on bilingualism rather than on multilingualism. The research questions also pay special attention to teachers' beliefs about the use of the L1 in the L2 classroom, which the current study extended to cover beliefs about the use of students' other languages in the L3 classroom. Furthermore, Vaish's study looked at the association between teachers' beliefs and years of teaching experience, which the current study developed further to explore not only the years of teaching experience in the L3 but also in other languages.

Flores (2001) conducted a study with 176 bilingual English-Spanish teachers to explore their beliefs about bilingual children's cognition, and to investigate whether teachers' prior experiences had any influence on their beliefs and practices. Flores takes a quantitative approach to fulfil these aims, and develops her own questionnaire, based partly on Marchant

& Bowers' (1988, 1990, 1997) *Teacher Behaviour Questionnaire*, which she calls the *Survey of Bilingual Teachers Epistemology and Teaching Practices* (SBTETP). Flores' conclusions suggest that bilingual teachers' beliefs are associated with their personal experience as language learners, the teacher training programmes they attended, and the length of their teaching experience. She also highlights the dynamic nature of beliefs, and argues that teachers test their theories through their practice and, depending on the effectiveness of these practices, their theories and beliefs are reaffirmed or modified. These findings support Posner, Strike, Hewson and Gertzog (1982) and Guskey's (1986) findings in mainstream education, who suggested that teachers would be continuously testing their old and new beliefs through their practice, and would only keep beliefs which proved successful for their teaching.

Unfortunately, both Vaish's (2012) and Flores' (2001) studies contain important methodological flaws which put into question the validity and reliability of their results. In both cases, the methods section is short and uninformative, with details about the data collection and analysis badly missing. The questionnaires seem to have been very poorly designed as a simple list of lengthy statements, and there is no mention to constructs or dimensions. Information about the piloting and validation of the questionnaire is not offered either, and the results are reported as simple percentages for each statement and for each of the four points in the Likert scale used. For these reasons, any conclusions drawn from these studies need to be taken with caution and used only as an inspiration for further, more methodologically-thorough research, as the current study aims to do.

Moving from bilingual to multilingual contexts, Cross (2011) and Lim and Torr (2007) conducted two separate studies on teachers' beliefs in literacy teaching. While Cross questions the current validity of monolingual assumptions regarding both the students' background and the learning context, Lim and Torr aimed not only to describe the beliefs

held by these teachers, but also to identify factors which may influence these beliefs. According to teachers' self-reported perceptions, teacher training programmes and teachers' teaching experience would be the most influential factors which shape their beliefs about literacy development in children with two or more linguistic systems. Other factors considered were age, race, professional qualifications, grade level taught, highest level of academic achievement, and background of their students.

Of special relevance for the current study are two pieces of research conducted in Canada to investigate the beliefs of teachers of French as a third language (L3). Mady's (2012) study aimed to investigate the beliefs of 69 elementary French teachers about including English-as-a-foreign-language students in French programmes originally aimed at the majoritarian English native population in Ontario. According to her findings, teachers seem aware of the advantages that bilingual learners have over non-bilingual students due to their prior language learning experience, and perceive language learning as a skill which students transfer to learn other languages. Interestingly, participants generally agreed that their teacher training programmes had not prepared them appropriately to meet the learning needs of bilingual students, with less experienced teachers – both in general teaching and in teaching French – agreeing the most strongly with this statement.

Similarly, Smith (2015) explored the beliefs about plurilingualism (used here as a synonym for individual multilingualism, see 3.2.1 above) of French teachers in Toronto. Taking a qualitative approach, she reported teachers' limited awareness of the processes involved in L3 learning and teaching. She also highlighted the existing "gap between ideal practice and classroom reality" (p. ii), and called for evidence-based policies which bring students' other languages to the centre of language teaching.

3.3.4 Teachers' beliefs about multilingualism in Europe

There have been several studies focusing on the beliefs of teachers in multilingual contexts across Europe, with only one study focused specifically on L3 teachers' beliefs about multilingualism. These studies are reported in some detail in the next few paragraphs as they constitute the only literature which currently exists focusing on teachers' beliefs about multilingualism in the same geographical space as the current study. Methodological issues in these studies will also be discussed in some detail as they informed many of the decisions taken when planning the current study.

In the context of teachers working with students of immigrant background, De Angelis (2011) run a survey study in Bolzen-Bolzano, a bilingual German-Italian region in the north of Italy. As in most other educational contexts, De Angelis noted that parents of immigrant children usually turn to teachers with questions regarding how to approach the learning and maintenance of their children's languages. However, there is no evidence so far on how useful or accurate is the advice provided by teachers, especially since most teachers have hardly received any information or training on multilingual issues.

With this premise in mind, De Angelis (2011) decided to investigate teachers' beliefs about multilingualism as a way to assess the suitability of the advice which they may be providing to parents of immigrant students. Her results suggest that a large number of the participants were aware of the cognitive advantages of being bi/multilingual, although they also seemed to hold outdated misconceptions of how languages interact in the mind. For example, teachers saw other languages mainly as a source of interference when learning a new language, and seemed to believe that speaking a different language at home would delay the learning of the host language. Although overall teachers seemed positive about immigrant students' knowledge of other languages, they did not welcome the idea of letting these languages and cultures enter their classrooms in any way. As a conclusion, De Angelis calls

for specific training on multilingualism and TLA for all teachers working with immigrant students (not just language teachers), and recognises the need for further research investigating which factors lead teachers to hold more appropriate beliefs about multilingualism, and how teacher training could effectively prepare teachers to work with bi/multilingual students.

The results from De Angelis' (2011) research need to be considered with caution since the study contains a number of serious methodological shortcomings. To start with, the questionnaire consists of single statements without any mention to constructs or dimensions being identified, which certainly raises questions regarding the reliability of the data collected. The survey was also delivered in the official languages of the countries (English, Italian and German) and there is no information about how the translation was done or checked, which again may have importantly affected the reliability of the instrument. Furthermore, the paper does not include any details about the data analysis procedures, and it is therefore unclear whether the instrument was piloted or validated in any way, or how the analysis of the data was conducted.

On the positive side, De Angelis (2011) decided to collect potentially useful background information about her participants, such as years of teaching experience, languages known, and qualifications, which informed the choice of background questions in the current study. However, De Angelis did not elaborate further on how these background variables may have influenced the way in which teachers responded to the different items in her questionnaire, which would have possibly also yielded interesting results. The current study provides interesting findings in this regard.

In the Greek context, Griva and Chostelidou (2011, 2012) conducted a study investigating the beliefs and attitudes of foreign language teachers towards the development of multilingual competences in education and society. The first study (2011) reported on

semi-structured interviews with 86 EFL teachers in, while the participants in the second study (2012) included teachers of both English and German as a foreign language. The setting seems to be exactly the same for both studies (primary and secondary state schools in northern Greece), and so seems to be the protocol for the semi-structured interviews, although these details are not explicitly stated in the papers.

A closer examination of the research aims and results shows that, despite what the titles may suggest, the papers focus on teachers' beliefs about the development of multilingual competence from a societal rather than individual perspective, that is, teachers' beliefs and attitudes about current language education policies, the importance of English as the main language of international communication, teaching and learning other European languages, early and lifelong language learning, and teacher training and mobility programmes. While all of these issues are certainly related to societal and policy aspects of multilingualism, they are not directly connected with the aims of the current study, which focuses on teachers' beliefs about multilingualism from the perspective of L3 education.

In this respect, Griva and Chostelidou's (2011) first study provides slightly more interesting results than the second, probably due to a different focus when analysing the data. The part of their findings most relevant for the current study suggests that EFL teachers in secondary education seemed to recognise the importance of multilingualism as "a means to communicate in different cultural and linguistic environments" (p. 1782) more than teachers in primary education. Furthermore, teachers with a master's degree seemed to agree more strongly with the need to promote the development of students' multilingual repertoires and their ability to communicate in several languages, in comparison with teachers with lower-level qualifications. Despite these interesting insights, the study hardly provides any further information about teachers' understanding of how learning and teaching several

languages within the same educational context may actually affect the way in which these languages are learnt and taught.

Under the somewhat misleading title *Does multilingualism influence plurilingual awareness of Polish teachers of English?*, Otwinowska (2013) reports on two studies investigating Polish EFL teachers' plurilingual awareness, and the relationship between these beliefs and their own plurilingualism (plurilingualism is used by Otwinowska as a synonym of individual multilingualism). She defines language teachers' plurilingual awareness as "the ability to promote plurilingual approaches in the language classroom" (p. 115), and identifies three main elements: (1) crosslinguistic and metalinguistic knowledge; (2) knowledge about adopting a plurilingual approach in the classroom, and (3) psycholinguistic knowledge of individual learner differences that facilitate learning.

The first study was conducted through a questionnaire that Otwinowska (2013) administered to 233 in-service and pre-service Polish teachers of English, and aimed (1) to ascertain whether pre-service and in-service teachers were equally aware of the role of crosslinguistic similarity and ready to incorporate it to their teaching; and (2) to investigate whether teachers' plurilingual awareness is related to (a) their teaching experience, (b) the number of languages that they know, and (c) the self-reported level in their L3(s). Her results suggest that in-service teachers may have higher plurilingual awareness than pre-service teachers, that multilingual teachers appear more aware than bilingual teachers, and that the higher their level of proficiency in the L3, the higher they responded to certain statements.

In her second study, Otwinowska (2013) reports on a qualitative study investigating how five secondary EFL teachers understand the concepts of plurilingual awareness and plurilingual language teaching. Her results show that teachers are hardly aware of the importance of students' other languages besides their L1, although they believe that knowing several languages helps with the learning of any additional languages. Interestingly, teachers'

beliefs seemed to stem importantly from their own learning and teaching experiences rather than on their teacher training. Some teachers also viewed the use of other languages in the classroom as unprofessional, while others reported encouraging their students to draw on their knowledge and experience with other languages to facilitate the learning of the target language.

Haukås' (2016) paper is possibly the most relevant to the current study because it is the only one which specifically investigates L3 teachers' beliefs about multilingualism. The author took a qualitative approach and conducted semi-structured focus group interviews with 12 teachers of Spanish, French and German as an L3 in four suburban lower secondary schools near one of Norway's biggest cities. The aims of her study were to explore the extent to which teachers (1) considered multilingualism as an asset to language learning; (2) drew on L3 learners' previous linguistic knowledge of their L1 and L2 (Norwegian and English respectively, in most cases); (3) drew on L3 learners' previous language learning experience; and (4) collaborated with teachers of other languages to enhance their students' L3 learning process.

Haukås' results provide interesting insights into L3 teachers' beliefs which had not been unveiled before by any other study, and which provided a good starting point for the current study:

- In her sample, teachers seemed to recognise the role of their own multilingualism (i.e., having learnt and knowing several languages) as key for the successful learning of further languages. However, they do not perceive that their students may benefit from this advantage automatically, and they highlight the importance of students' awareness about their own multilingualism as a key factor to use their knowledge of other languages to enhance the L3 learning process. These findings

suggest the central role which teachers may play in helping students realise their own language learning potential and exploit their previous linguistic knowledge.

- Participants seemed to agree that learning the L3 was completely different from learning the L2, and therefore were not convinced that students could transfer their L2 learning strategies to enhance their learning of the L3. In Norway, English is learnt as an L2 at a very early age and students do not remember how they actually learnt it. For this reason, teachers seemed to believe that the L3 was the first real foreign language which students would have to learn as almost adults in an explicit manner.

- Partly due to the fact that English as an L2 had been learnt at a very early age mainly through songs and games, teachers felt that L3 students were lacking knowledge about grammar and about the metalanguage used to talk about the language itself (e.g., verbs, adjectives, adverbs, etc.). Teachers did not seem to worry about students not bringing appropriate language learning strategies to the L3 classroom from their previous learning of the L2.

- All participants in this study recognised making frequent references to students' other languages, mainly Norwegian and English, which were the most common L1 and L2. However, they seemed reluctant to incorporate students' other languages, particularly in the case of students with an immigrant background who would have different L1s, and some even recognised not being aware of which other languages their students knew. They recognised they did not feel confident referring to languages they did not know well themselves. Furthermore, teachers highlighted the current lack of L3 materials with activities incorporating students' other languages, and the added work and difficulty in preparing such additional activities.

- Finally, the participants felt that cooperation among teachers of different languages was practically inexistent. They recognised that in order to be able to activate

students' knowledge of other languages in the L3 classroom, it would be essential to first understand and keep track of what students are actually learning in these other languages. Collaboration among language teachers was seen as holding great potential to enhance all teachers' ability to draw on learners' knowledge of the other languages in the curriculum, and not just beneficial for the L3 teachers.

Haukås concludes supporting the idea that a multilingual pedagogical approach would increase the efficiency of language learning (Neuner, 2004, 2009), and emphasising the need for language teacher training programmes to include modules which would enhance teachers' awareness about multilingualism issues and practice (De Angelis, 2011; Jessner, 2008). Finally, she calls for further research investigating L3 teachers' beliefs in different countries and educational contexts, as well as international comparative studies not only with L3 teachers but also with L1 and L2 teachers. The current study aims to address some of these points, as well as providing a more systematic view of teachers' beliefs about the three main elements which have emerged in TLA literature.

3.3.5 Researching teachers' beliefs: methodological considerations

Pajares (1992) pointed out that "as a global construct, belief does not lend itself easily to empirical investigation" (p. 308). The first issue associated with researching teachers' beliefs is the lack of agreement on what beliefs are and how they are defined (as discussed in 3.3.1 above). Even when agreement on these questions is reached, beliefs as such are too broad a construct. Pajares highlights the importance of focusing on the study of belief subconstructs (e.g., self-efficacy), which are much more specific, and therefore also easier to operationalise and measure. However, he warns, studying belief subconstructs only offers a limited view of an issue which exists within a much broader and complex system of beliefs. Therefore, any investigation of belief subconstructs should also consider contextual factors in order to reach a better understanding of the nature of their potential relationship with

teachers' behaviours. Following this recommendation, the current study focuses on measuring beliefs subconstructs within multilingualism, and includes a large number of background variables which had not yet been investigated within the same study (De Angelis, 2011; Flores, 2001; Griva & Chostelidou, 2011; Lim & Torr, 2007; Mady, 2012; Otwinowska, 2013; Vaish, 2012).

Once the constructs have been identified, the research methods need to be chosen with caution. Both Borg (2006, 2015) and Pajares (1992) recommend weighing carefully the advantages and limitations of each research method against the goals of each study. They recommend determining at an early stage whether the main goal is to conduct an in-depth exploration of belief systems, or whether the aim is to provide an overview of specific belief subconstructs and the relationships between these beliefs and other observed background variables. The aim of the current study aligns with this second aim, which led to the choice of a questionnaire as the main research instrument.

Questionnaires have proved to be one of the most valuable instruments to investigate complex mental constructs in fields such as psychology (e.g., Friedman & Rosenman, 1974; Holmes & Rahe, 1967) and education (e.g., OECD, 2009; UNESCO, 2004). Furthermore, there currently exists a well-known international survey on teachers' beliefs (e.g., TALIS, conducted by the OECD, see OECD, 2009) which uses a questionnaire as the main research instrument to measure teachers' beliefs and attitudes towards a number of educational subconstructs, and analyses them against a battery of background variables regarding different aspects of the national educational systems. The current study follows the TALIS model, using a questionnaire to measure teachers' beliefs about several subconstructs within multilingualism, and exploring associations between these beliefs and 19 background variables.

However, questionnaires may paint a picture which is removed from the actual context in which teachers create, hold and operationalise their beliefs. For this reason, results from questionnaire studies assessing teachers' beliefs need to be considered with caution, and when possible followed up with qualitative research instruments such as interviews and observations. Given the size, scope and aims of the current study, a qualitative phase was not deemed feasible nor relevant, although further research will need to be conducted at a later stage to gain a better understanding of the results in this study.

In regards to reliability, one of the most serious problems with existing questionnaires and self-report instruments is the lack of methodological thoroughness with which these tools appear to be designed. While Dörnyei (2007, 2010) warns about the detrimental effect that ill-designed surveys can have in the study of any social or educational theories, this concern is even greater when investigating constructs as extremely complex and context-embedded as teachers' beliefs. There exist two well-known questionnaires which were specifically designed to measure teachers' beliefs about language learning (Horwitz, 1985) and about L2 acquisition (Lightbown & Spada, 1993), and which have been widely used in the investigation of teachers' beliefs about language learning processes. However, both instruments have been built as a list of individual statements, ignoring all psychometric principles and recommendations to ensure the reliable measurement of complex mental constructs such as beliefs. Other authors (such as those reviewed in 3.3.3 above) have designed their own questionnaires and self-report instruments, but they seem to have incurred in similar methodological flaws as the abovementioned authors. Building on these observations, the current study has put every effort in ensuring the careful design, piloting and validation of the questionnaire, as demonstrated in the Research Methods (chapter 5 below).

3.3.6 Variables influencing teachers' beliefs

Almost as important as understanding the structure of teachers' beliefs is discovering how these beliefs vary according to certain background variables. Depending on the research aims, these can range from simple demographic variables, such as gender or country (e.g., Singer, 1996; OECD, 2009) to more complex background variables such as professional experience, teacher training, students' profile, or educational and socio-political context. As explained by the OECD (2009), including this last type of background variables is especially important for the development of future education policies since the results may shed light into which elements may be playing the most important role in shaping teachers' beliefs about specific issues. However, it is imperative to remember that questionnaire studies can only determine which background variables seem most associated with certain beliefs, and by no means can they disentangle causal directions.

From the review of existing studies in 3.3.2, 3.3.3 and 3.3.4 above, the main elements influencing language teachers' beliefs could be divided into three main categories: (1) those regarding the students (e.g., grade, age, linguistic background, professional occupation, etc.); (2) those regarding the teaching context (e.g., geographical region, socio-political and linguistic situation, education policies, etc.); and (3) those regarding the teacher (e.g., gender, age, teaching experience, academic and professional qualifications and training, personal background, etc.). Within each of these three categories, the current study identified the most relevant variables and operationalised them in straight-forward questions which were included in the questionnaire. Subsection 5.1.2 below provides more details about the exact background variables included in this study.

4. Research Questions

The research questions for this study are derived from the research aims stated in Chapter 2 above, which were:

(1) To describe L3 teachers' beliefs about multilingualism; and

(2) To identify background variables associated with differences in L3 teachers' beliefs about multilingualism.

Multilingualism is operationalised in this study as the three main elements that emerged from the review of TLA literature, that is, L3 learning, L3 teaching and the L3 teacher. Relevant background variables were identified from a review of existing studies on teachers' beliefs, particularly those related to multilingualism. The 19 background variables included in this study are informed by these previous works, and concern characteristics of the L3 students, the L3 teaching context, and the L3 teachers.

Based on these notes, the research aims of this study will be fulfilled by answering the following research questions:

(1) What beliefs do L3 teachers across Europe hold about multilingualism, that is, about L3 learning, L3 teaching and the L3 teacher?

(2) What background variables regarding the L3 students, the L3 teaching context, and L3 teachers can be associated with differences in L3 teachers' beliefs about multilingualism?

Each of the 19 background variables in Research Question (2) is devoted a subsection in the Results and Discussion chapter. Within each of these subsections, a number of subquestions are suggested to guide the exploration and discussion of the results for each specific background variable. Given their merely guiding nature, these subquestions are not considered part of the Research Questions, and are therefore only introduced progressively in the context of the discussion of each variable.

5. Research Methods

5.1 Research Framework

Building on the research questions and on the literature reviewed in previous subsections, this study is structured around two main axes: (1) the three elements of multilingualism about which teachers' beliefs are investigated (i.e., L3 learning, L3 teaching, and the L3 teacher), and (2) the background variables explored to identify potential associations with teachers' beliefs. Non-coincidentally, these two axes correspond to Research Aims 1 and 2, respectively, and therefore provide also the skeleton for the Results and Discussion (chapter 6 below).

Although there has been some research exploring teachers' beliefs about multilingualism from a range of different perspectives (see 3.3.4 above), no previous study has investigated teachers' beliefs from this double angle, that is, combining both a comprehensive overview of teacher's beliefs about multilingualism and investigating the association of these beliefs with a large number of background variables. For this reason, this study had to establish ways to measure both the three main elements of multilingualism and the 19 background variables. The following two subsections offer a brief overview of how these two axes were operationalised in this study.

5.1.1 Constructs: identifying and operationalising the three main elements of multilingualism

The literature reviewed suggested not only the three main elements of multilingualism (i.e., L3 learning, L3 teaching and the L3 teacher), but also a set of constructs central to each of these three elements. Table 2 shows how each element of multilingualism was turned into questionnaire sections, and broken down into scales to measure the constructs identified in the literature. It also indicates the subsections within the literature review where each of the elements were discussed and the constructs identified.

Table 2

Summary of main constructs identified in the literature regarding L3 learning, L3 teaching and the L3 teacher, matched to the questionnaire sections and scales which served to measure each of these constructs (scale number in brackets)

Literature	Questionnaire
L3 learning (see 3.2.2.2)	**Section 3: Multilingual students**
Crosslinguistic interaction Multilingualism factor	(3) Advantages due to knowledge of other languages (4) Advantages due to experience learning other languages
L3 teaching (see 3.2.3.1)	
Exploiting previous linguistic knowledge to facilitate the L3 learning process and to prepare students for communication in multilingual settings	**Section 2: Multilingualism in the target language classroom** (1) To facilitate the L3 learning process (2) To help students become effective multilingual communicators
Exploiting previous experiences learning and using languages to facilitate applying the skills developed in the other languages to the L3	**Section 4: Teachers' own experience learning foreign languages** (5) Promoting crosslinguistic connections (6) Understanding the language learning process
L3 teacher (see 3.2.4.4)	**Section 5: Teachers of multilingual students**
Knowledge of other languages Experience learning and using other languages	(7) Experience learning and using foreign languages (8) Knowledge of and about foreign languages
Training in TLA	(9) Training in SLA (10) Training in TLA

5.1.2 Background variables: identifying and operationalising potential correlates of teachers' beliefs about multilingualism

As discussed in 3.3.6 above, while having an overview of teachers' beliefs about a certain topic is important in itself, understanding the background variables which might be associated with these beliefs can be also very insightful. As a consequence, studies on teachers' beliefs have widely researched and documented the apparent influence of background variables on how teachers' perceive teaching and learning phenomena (for an

overview, see 3.3.2, 3.3.3, and 3.3.4 above). Studies on teachers' beliefs about multilingualism have identified as potentially relevant the following background variables: years of teaching experience (De Angelis, 2011; Lim & Torr, 2007; Vaish, 2012), number of languages known by the teacher (De Angelis, 2011; Otwinowska, 2013), teachers' proficiency in their L2/L3 (Otwinowska, 2013), qualifications (De Angelis, 2011; Lim & Torr, 2007; Vaish, 2012), highest level of qualifications (Griva & Chostelidou, 2011, 2012), and type of institution where they teach (Griva & Chostelidou, 2011, 2012).

Considering the lack of reliable findings determining which background variables might be associated with teachers' beliefs about multilingualism, this study aimed to take an exploratory approach and included 19 background variables which have identified as relevant in previous studies. These variables were organised according to the three main categories identified in 3.3.6 above: variables regarding the characteristics of the students, variables regarding the teaching context, and variables regarding teachers' personal and professional profile. Table 3 offers a list of the variables which were included under each of these three categories, and the sections in Results and Discussion where each of them is examined in more detail.

Table 3

Summary of background variables included in this study regarding the L3 students, the L3 teaching context and the L3 teacher, matched to their respective sections in Results and Discussion

L3 students		
A	Students share a common L1	6.3.1.1 below
B	Students' individual multilingualism (IM)	6.3.1.2 below
C	Students' level in the L3	6.3.1.3 below
D	Students' age	6.3.1.4 below
L3 teaching context		
E	Multilingual country	6.3.2.1 below
F	Country with high L2 proficiency	6.3.2.2 below

L3 teachers		
G	Native and non-native L3 speakers	6.3.3.1 below
H	Teachers native of students' L1	6.3.3.2 below
I	Teachers' level in students L1	6.3.3.2 below
J	Number of foreign languages learnt	6.3.3.3 below
K	Number of languages teachers have grown up with	6.3.3.4 below
L	Teachers' individual multilingualism (IM)	6.3.3.5 below
M	Teachers' qualifications in other languages	6.3.3.6 below
N	Level of teachers' qualifications in other languages	6.3.3.6 below
O	Level of teachers' qualifications in teaching the L3	6.3.3.6 below
P	Level of teachers' qualifications in education	6.3.3.6 below
Q	Teachers' experience teaching other languages	6.3.3.7 below
R	Years of experience teaching other languages	6.3.3.7 below
S	Years of experience teaching the L3	6.3.3.7 below

5.2 Pilot Studies

The current project was preceded by two pilot studies. Pilot 1 involved the identification of the main constructs within L3 learning, L3 teaching and the L3 teacher, the operationalisation of the constructs into items, and the design and statistical validation of the questionnaire. Based on the results in Pilot 1, Pilot 2 involved modifying some of the items and background questions, the translation of the questionnaire into the three language versions (i.e., Spanish, French and German) following a careful five-stage process of translation, back-translation and reviewing, and the validation of these three language versions of the questionnaire. The results from Pilot 2 raised small issues in several items, particularly related to the wording of the translations, which were duly addressed before conducting the current study.

A summary of these two studies is included in Appendix C to show how validity and reliability were ensured throughout the creation, validation and double piloting of the

questionnaire. Details about this process are also available in Gutierrez Eugenio (2014). The result of this process was the final research questionnaire in three language versions which was used as the main instrument of data collection for this study.

5.3 Participants

This project was planned as a cross-sectional study involving around 600 teachers of Spanish, French and German as a foreign language across Europe. The minimum of 200 participants for each language was set for statistical reasons. Spanish, French and German were chosen because, according to recent data published by Eurostat (2014), these are the most widely-taught languages in Europe after English, and therefore the most popular L3s.

Eventually, the questionnaire received responses from a total of 1052 teachers from 34 European countries. Out of them, 68 reported their students only knowing their mother tongue and had to be excluded from the sample, since they are by definition not teaching their languages as L3s. This brought the final number of participants down from 1052 to 984 (broken down by languages in Table 4 below). This early finding confirms the initial assumption that Spanish, French and German are predominantly learnt as L3s across all European countries.

Table 4

Number of responses for the whole sample and for each language subsample according to whether the students know only their mother tongue, one foreign language, or more than one foreign language before learning the target language (i.e., Spanish, French or German)

		Target language		
	Whole sample	Spanish	French	German
Students only know the L1	68	17	21	30
Students already know one foreign language	732	168	305	259
Students already know more than one foreign language	252	122	76	54
Total	1052	307	402	343

Table 5 below shows detailed information about the participants' age and gender. In terms of age, the lowest and highest values are similar across the three language subsamples, with an overall minimum age of 20 and maximum of 73. The average age of the participants for the whole sample was 45.33 (Std. dev. = 10.57), with almost identical values across the three language subsamples. With regard to gender, the overall sample was distributed unevenly with 815 female participants (82.2%) and only 169 male participants (17.2%). These values showed very small variation across the three language subsamples.

Table 5

Detailed information regarding the age and gender of the participants for the whole sample and for each language subsample.

		Whole sample (N=984)	Spanish (n=290)	French (n=381)	German (n=313)
Age (years)	Min.	20	21	20	23
	Max.	73	73	72	73
	Mean	45.33	43.57	46.16	45.95
	Std. Dev.	10.57	10.18	10.81	10.48
Gender	Male	n= 169 (17.2 %)	n= 50 (17.2 %)	n= 59 (15.5 %)	n= 60 (19.2 %)
	Female	n= 815 (82.8%)	n= 240 (82.8%)	n= 322 (84.5%)	n= 253 (80.8%)

Table 6 below offers information about the number of teachers who were native speakers of the target language and those who were not. The results for the overall sample suggests a rather balanced picture, with 467 native speakers (47.5%) and 517 non-native speakers (52.2%). These values show a certain variation across the three language subsamples, with the highest percentage of native teachers in the Spanish subsample (n=172; 59.3%) and the lowest in the French subsample (n=146; 38.3%).

Table 6

Detailed information regarding the number of teachers who are native and non-native speakers of the target language (i.e., Spanish, French or German) for the whole sample and for each language subsample.

	Whole sample (N=984)		Spanish (n=290)		French (n=381)		German (n=313)	
Native	467	(47.5%)	172	(59.3%)	146	(38.3%)	149	(47.6%)
Non-native	517	(52.5%)	118	(40.7%)	235	(61.7%)	164	(52.4%)

Regarding the participants' distribution across Europe, Table 7 shows a varied and truly European picture, with teachers working in 34 countries, including some cases of teachers working in two countries at the same time. France stands as the country with most responses (n=102; 10.40%), followed by Italy (n=93; 9.50%), Spain (n=90; 9.10%), Portugal (n=78; 7.90%), Austria (n=77; 7.80%) and Germany (n=67; 6.80%). Responses from these six countries account for over half of the responses (51.50%), which suggests countries are not all represented with the same number of participants or weighted according to their national populations. For this reason, the sample should not be considered as representative in the purely mathematical sense.

The table also offers details about the number of participants from each country for each language subsample. As it can be observed, the number of participants varies importantly across the language subsamples. Some of the variation in the Spanish subsample is intentional to avoid countries where Pilot 1 was conducted with teachers of Spanish as the target population. In order to avoid any bias, teachers of Spanish working in these countries were not invited to participate in the study. A small number of participants also reported working in more than one country, as indicated in the last row *Several countries*.

Table 7

Detailed information regarding the countries where the participants teach, for the whole sample and for each language subsample.

	Whole sample (N=984)		Spanish (n=290)		French (n=381)		German (n=313)	
Austria	77	(7.8%)	20	(6.9%)	56	(14.7%)	1	(0.3%)
Belarus	1	(0.1%)	1	(0.3%)	0		0	
Belgium	28	(2.8%)	14	(4.8%)	5	(1.3%)	9	(2.9%)
Bosnia and Herzegovina	2	(0.2%)	0		0		2	(0.6%)
Bulgaria	11	(1.1%)	0		5	(1.3%)	6	(1.9%)
Croatia	3	(0.3%)	0		3	(0.8%)	0	
Cyprus	5	(0.5%)	0		0		5	(1.6%)
Czech Republic	37	(3.8%)	15	(5.2%)	15	(3.9%)	7	(2.2%)
Denmark	8	(0.8%)	1	(0.3%)	1	(0.3%)	6	(1.9%)
Estonia	22	(2.2%)	6	(2.1%)	9	(2.4%)	7	(2.2%)
Finland	20	(2.0%)	6	(2.1%)	8	(2.1%)	6	(1.9%)
France	102	(10.4%)	28	(9.7%)	48	(12.6%)	26	(8.3%)
Germany	67	(6.8%)	19	(6.6%)	28	(7.3%)	20	(6.4%)
Greece	23	(2.3%)	6	(2.1%)	10	(2.6%)	7	(2.2%)
Hungary	14	(1.4%)	2	(0.7%)	3	(0.8%)	9	(2.9%)
Italy	93	(9.5%)	27	(9.3%)	42	(11.0%)	24	(7.7%)
Latvia	4	(0.4%)	0		0		4	(1.3%)
Lithuania	39	(4%)	1	(0.3%)	16	(4.2%)	22	(7.0%)
Luxembourg	14	(1.4%)	5	(1.7%)	4	(1.0%)	5	(1.6%)
Macedonia	21	(2.1%)	0		11	(2.9%)	10	(3.2%)
Malta	13	(1.3%)	5	(1.7%)	4	(1.0%)	4	(1.3%)
Netherlands	42	(4.3%)	27	(9.3%)	8	(2.1%)	7	(2.2%)
Norway	12	(1.2%)	7	(2.4%)	4	(1.0%)	1	(0.3%)
Poland	50	(5.1%)	24	(8.3%)	10	(2.6%)	16	(5.1%)
Portugal	78	(7.9%)	19	(6.6%)	31	(8.1%)	28	(8.9%)
Romania	7	(0.7%)	0		7	(1.8%)	0	
Russia	11	(1.1%)	0		4	(1.0%)	7	(2.2%)
Serbia	7	(0.7%)	0		7	(1.8%)	0	
Slovakia	5	(0.5%)	0		2	(0.5%)	3	(1.0%)
Slovenia	4	(0.4%)	0		1	(0.3%)	3	(1.0%)

Spain	90	(9.1%)	30	(10.3%)	25	(6.6%)	35	(11.2%)
Sweden	30	(3.0%)	13	(4.5%)	9	(2.4%)	8	(2.6%)
Switzerland	33	(3.4%)	13	(4.5%)	4	(1.0%)	16	(5.1%)
Ukraine	8	(0.8%)	0		0		8	(2.6%)
Several countries	3	(3%)	1	(0.3%)	1	(0.3%)	1	(0.3%)

Table 8 summarises information regarding the type of institutions where participants teach most often, considering that it is not uncommon for teachers to work in different types of institutions at the same time. The descriptive results for the whole sample show that almost half of the teachers work in secondary education (n=425; 43.2%), followed in the distance by higher education institutions (n=290; 29.5%) and by cultural institutions such as the Instituto Cervantes for Spanish, the Goethe-Institut for German, or the Institut Français and Alliance Française for French (n=114; 11.6%). This last type of institution is closely followed by teachers working in private language schools or giving private lessons (n=114; 11.6%), and then a minority of teachers working in primary education (n=19; 1.9%) or in other types of institutions such as evening schools, international organisations, state language schools in Spain, centres for the integration of migrants, universities for adults, and so forth.

Table 8

Detailed information regarding the type of institution where the participants teach most often, for the whole sample and for each language subsample.

	Whole sample (N=984)		Spanish (n=290)		French (n=381)		German (n=313)	
Primary education	19	(1.9%)	4	(1.4%)	8	(2.1%)	7	(2.2%)
Secondary education	425	(43.2%)	126	(43.4%)	188	(49.3%)	111	(35.5%)
Higher education	290	(29.5%)	86	(29.7%)	90	(23.6%)	114	(36.4%)
Private language school/ private lessons	99	(10.1%)	42	(14.5%)	37	(9.7%)	20	(6.4%)
Cultural institution (e.g., Instituto Cervantes, Goethe-Institut, etc.)	114	(11.6%)	17	(5.9%)	47	(12.3%)	50	(16%)
Other	37	(3.8%)	15	(5.2%)	11	(2.9%)	11	(3.5%)

Table 9 presents an overview of the age and level in the L3 of the group of students that participants teach most often (as discussed in the previous paragraph, teachers may be teaching different types of students at any given point in time). Regarding the age, almost half of the students are between 12-17 years old (n=419; 42.6%), followed by students between 18-23 (n=339; 34.5%) and by students between 24-49 (n=202; 20.5%). This pattern is maintained across the three language subsamples, with the exception of the German subsample where the percentage of students aged 18-23 (n=124; 39.6%) is slightly higher than those aged 12-17 (n=114; 36.4%). The number of teachers working with students in the age ranges 6-11 and over 50 was residual for the whole sample.

In what regards the level of the students in the L3, which also reflects the levels most taught by the teachers in the sample, over half of the responses correspond to the lower levels of proficiency A1-A2 (n=505; 51.3%), followed closely by the intermediate levels B1-B2 (n=418; 42.5%). Only a minority of participants teach the higher levels C1-C2 (n=61; 6.2%). This pattern is repeated across the three language subsamples with very similar values for all proficiency levels.

Table 9

Detailed information about the age and the level in the target language (i.e., Spanish, French or German) of the students that participants teach more often, for the whole sample and for each language subsample.

		Whole sample (N=984)		Spanish (n=290)		French (n=381)		German (n=313)	
Students' age	6-11	16	(1.6%)	6	(2.1%)	6	(1.6%)	4	(1.3%)
	12-17	419	(42.6%)	118	(40.7%)	187	(49.1%)	114	(36.4%)
	18-23	339	(34.5%)	105	(36.2%)	110	(28.9%)	124	(39.6%)
	24-49	202	(20.5%)	57	(19.7%)	76	(19.9%)	69	(22.0%)
	50+	8	(0.8%)	4	(1.4%)	2	(0.5%)	2	(0.6%)
Students' level in the L3	A1-A2	505	(51.3%)	142	(49.0%)	195	(51.2%)	168	(53.7%)
	B1-B2	418	(42.5%)	130	(44.8%)	170	(44.6%)	118	(37.7%)
	C1-C2	61	(6.2%)	18	(6.2%)	16	(4.2%)	27	(8.6%)

It is important to bear in mind that this study is based on a self-selected sample of L3 teachers, that is, the participants had all the opportunity to decide whether they wished to take part in the survey. Teachers who decided to do so may have had a prior interest in the topic of the questionnaire (i.e., multilingualism), and possibly even a certain awareness of the issues investigated. This means that the results from this study are most probably overrepresented and need to be considered with care when generalising conclusions to the wider population of L3 teachers in Europe.

5.4 Instrument

The data for this study was collected through an online questionnaire, which allowed reaching a larger number of participants from all over Europe. The questionnaire used was the result of two previous pilot studies, as explained in 5.1 above.

The questionnaire was created in English and translated into Spanish, French and German following a strict process of translation, back-translation, proofreading and revision (see Appendix C, Pilot 2). Teachers were sent the link to the language version of the questionnaire based on the language that they teach. For example, teachers of Spanish were sent the link to the Spanish version of the questionnaire. This was done to ensure that teachers filled the questionnaire in a language that they mastered sufficiently well as to understand the nuances of the questions. The final questionnaire in its English version appears in Appendix A.

The estimated time needed to complete the questionnaire was between 15 and 20 minutes, just below the maximum recommended 30-minute length (Dörnyei, 2010; Dörnyei & Csizér, 2012). The questionnaire was created on Google Forms, a free and secure browser application to build and administer online questionnaires. Google Forms was chosen because of its intuitive interface and the clear format of the responses once exported into Excel files,

which greatly facilitated data cleaning. Screenshots of what the questionnaire looked like to the participants are included in Appendix B.

The final questionnaire had a total of 75 questions and was divided into six differentiated sections, each of which was presented in a separate page in the online questionnaire. The first and last sections of the questionnaire included 13 contextual and socio-demographic questions about the teachers, their students and their teaching contexts, which would then be used to compute the 19 background variables investigated in this study. Questions were written in a way that would encourage teachers to think about their students in general terms rather than about exceptions or particular cases (e.g., “most of my students”, “all or most of my students”, “most often”).

The remaining 62 questions were items designed to measure the 10 constructs identified in the literature review within each of the three main elements of multilingualism (as mapped in subsection 5.1.1, Table 2 above). Participants had to rate these items on a 5-point Likert scale where the two extremes were given (e.g., “Strongly agree” and “Strongly disagree”), and the three points in between were only indicated in a decreasing order of agreement by arrows (>>>>, >>> and >>). This intended to avoid using ambiguous or confusing wording for the middle option and to ensure that participants’ responses were graded according to their level of agreement with the statements. A graphic example of what participants could see in the online questionnaire is provided in Appendix B.

At the analysis stage, 3 out of the 62 items did not work as well as expected and had to be dropped, reducing the total number of valid items to 59. The 10 constructs measured by these 59 items were distributed over the four main questionnaire sections as per Table 2 in 5.1.1 above.

Section (2) was intended to explore L3 teachers’ beliefs about the usefulness of other languages in the target language classroom. This section resulted from the review of studies

and recommendations in L3 teaching to include the students' other languages as a valuable tool to facilitate the learning and teaching of an L3 (Aronin & Ó Laoire, 2003; Cook, 2007, 2010; Cummins, 2001, 2007; Hall & Cook, 2013; Herdina & Jessner, 2002; Hinger et al., 2005; Jessner, 1999, 2006, 2008; Neuner, 2004; Spöttl & Hinger, 2001; Van Gelderen et al., 2003; Widdowson, 2003) and to help students not only learn the L3 but also become effective multilingual communicators (Hélot, 2006; Hinger et al., 2005; Jessner, 2008; Moore, 2006; Neuner, 2004). For a detailed discussion on the importance of each of these elements within L3 teaching, see 3.2.3 above.

This section included 10 items measuring the 2 following constructs:

- *To facilitate the L3 learning process* (5 items): to what extent teachers recognise the usefulness of students' knowledge of and about other languages to speed up the process of understanding and learning the L3. Example: To help learners relate new target-language knowledge to their knowledge in other languages.
- *To help students become effective multilingual communicators* (5 items): to what extent teachers believe that using other languages in the target language classroom could help students develop the kind of interlinguistic skills which multilingual individuals usually have to face in real life. Example: To help students get used to switching from one language to another.

Section (3) intended to investigate L3 teachers' beliefs about the characteristics of L3 learners. The items in this section were based on literature on TLA, which claims that L3 learning is distinctly different from L2 learning. The defining characteristics of L3 learning are described in the literature review as 1) cross-linguistic interaction (transfer, borrowing, code-switching); and 2) the multilingualism factor or M-factor, which includes all cognitive and metacognitive advantages due to L3 learners' experience learning other languages (see 3.2.2.1.1 and 3.2.2.1.2 above for more information about these two elements).

This section included 16 items measuring the 2 following constructs:

- *Advantages due to knowledge of other languages* (6 items): to what extent teachers perceive L3 learners' benefitting from their knowledge of other languages to enhance the L3 learning process. Example: Use grammatical structures borrowed from other languages.
- *Advantages due to experience learning other languages* (11 items): to what extent teachers perceive L3 learners' having cognitive and metacognitive advantages for language learning, particularly regarding aptitude, autonomy and strategies. Example: Have a greater sensitivity to recognise the grammatical functions of words (aptitude), Evaluate more carefully the teacher's contribution to their learning (autonomy), Have developed their own language learning strategies (strategies).

Section (4) aimed to explore L3 teachers' beliefs about the usefulness of their own experience learning and using languages to enhance the L3 learning and teaching processes. This section was based on claims in L3 teaching literature (see 3.2.3 above) regarding the importance of teachers' own experience learning and using languages as a unique and irreplaceable tool to better understand and guide the L3 learning process (Ellis 2006, 2012; Medgyes, 1983, 1992, 1994; Jessner, 2008; Widdowson, 2003).

This section included 12 items measuring the 2 following constructs:

- *Promoting crosslinguistic connections* (3 items): to what extent teachers believe that their previous experience learning and using languages can help them guide their students adopt a strategic approach to the learning of the L3 by reflecting on their knowledge and experience with other languages. Example: Promote comparisons between the different languages.
- *Understanding the language learning process* (9 items): to what extent teachers consider that their own learning experiences have given them a deeper understanding

of the L3 learning process, and therefore enhanced their teaching by making it easier to relate to the process their students are going through. Example: Understand better the language learning process that their students are going through.

Section (5) aimed to investigate the importance that L3 teachers concede to different elements identified as key in the profile of L3 teachers. These elements stem from the discussion in 3.2.4 above, where it was argued that L3 teachers should ideally know foreign languages, have experience learning and using these languages, and have received specialised training not only in SLA but also in TLA.

This section included 20 items measuring the 4 following constructs:

- *Experience learning and using foreign languages* (5 items): how important participants consider for L3 teachers to have experience learning and using foreign languages. Example: Personal experience communicating in one or several foreign languages.
- *Knowledge of and about foreign languages* (5 items): to what extent participants consider that L3 teachers should have knowledge of other foreign languages, including the students' mother tongue and the other languages the students know. Example: Basic knowledge of several foreign languages.
- *Training in SLA* (6 items): to what extent participants consider that having specialised training in SLA principles and practice is important for L3 teachers. Example: Specialised training in teaching second languages.
- *Training in TLA* (4 items): to what extent participants consider that having specialised training in TLA principles and practice is important for L3 teachers. Example: Familiarity with the practical aspects of third language teaching and learning.

At the end of the questionnaire, teachers were offered the opportunity to leave their email address to receive a summary of the results from this study. They also had the chance to express their willingness to participate in a potential follow-up interview study.

5.5 Data Collection

The data was collected through an online questionnaire between January and April 2015. Although the data collection was initially planned to take place over just 6 weeks, this period was extended to allow for larger participation.

The questionnaire was administered by email to teachers of the target languages in all European countries. An introduction email with the link to the online questionnaire was first sent to gatekeepers, such as teacher associations both at a European and national level, large language and cultural centres, embassies and delegations of Spain, France and Germany in the target countries, and so forth. These gatekeepers were kindly asked to forward the message to any potential participants, therefore hoping for snowball sampling (Dörnyei, 2007). Although the introductory email was in the language of the target teachers (i.e., Spanish, French or German), sometimes the message included a short introductory note in English foreseeing situations where the initial recipient of the message could not understand either of those languages but had the possibility to contact people teaching them (e.g., heads of schools, presidents of teacher associations, etc.).

The number of emails sent to each main group of recipients per language (shown in Table 10) can be compared with the number of responses obtained to each language version of the questionnaire (see Table 4 above). Although it is difficult to ascertain the number of teachers who were forwarded the questionnaire by gatekeepers, the total response rate seems to be just over 7%.

Table 10

Number of emails sent to each type of recipient.

	Spanish	French	German	More than one language/language undefined
Teachers	78	457	1267	247
Gatekeepers	303	713	0	11,170
Subtotal	**1,089**	**1,170**	**1,267**	**11,417**
Total				**14,943**

5.6 Data Analysis

The data collected through the questionnaire was exported in Excel, and then transferred to and analysed with SPSS (Statistical Package for Social Sciences, 2008) 17.0. Descriptive statistics confirmed that the data were normally distributed, which allowed applying parametric procedures. Considering the relatively large sample size, the level of significance was set at $p < 0.01$.

Before any analysis was conducted, responses from participants who reported not teaching their languages as L3s were excluded from the dataset. Responses from each of the three language versions of the questionnaire were kept in three different datasets, and analysed separately until the multi-item scales had been confirmed. At that point, the three datasets were merged into a final dataset. The rest of the analysis was conducted on this final dataset.

The dimensions of analysis measured by this questionnaire were confirmed through Principal Component Analysis (PCA; without rotation; Székelyi & Barna, 2002) applied to the items intended to measure each dimension. Once the dimensions were confirmed, Cronbach's alpha internal consistency reliability coefficients were calculated for all the multi-item scales, both for the whole sample and for each language subsample (see

Table *11* below).

In order to answer Research Question (1), descriptive statistics were used to provide an overview of L3 teachers' beliefs about multilingualism across the whole sample. Correlations among the scales were also calculated to gain a better understanding of how the measured constructs relate to each other.

Answering Research Question (2) required conducting several types of analyses. Independent-samples t-tests were run to identify any significant differences between the responses of two separate subgroups of participants. The subgroups were created based on teachers' answers to the background variable being discussed. Similarly, one-way analyses of variance (ANOVA) were computed to compare the responses of three or more subgroups of participants, also on the basis of teachers' answers to the background variables. Correlations were only used in one instance where the background variable was measured as interval data to determine whether a higher score in the background variable could be associated with a higher response to the scales. Descriptive statistics were also used to provide information about the distribution of participants' regarding some of the background variables.

6. Results and Discussion

6.1 Dimensions of Analysis

Principal Component Analysis (PCA, no rotation) was conducted on each language dataset to confirm the dimensions of analysis. The items were then divided into several multi-item scales according to the constructs they were intended to measure, and Cronbach's alpha internal consistency reliability coefficients were calculated for each scale on SPSS, both for the whole sample and for each language subsample.

Table *11* below includes detailed results of these analyses for each scale in each section of the questionnaire. As it can be observed, all the Cronbach's alpha values were above the acceptable .70 threshold (DeVellis, 2003; Nunnally, 1978) when calculated both for the whole sample and for the three language subsamples. The only exception is scale 3, where the value in the German subsample is slightly below the threshold (Cr. α = .69), but still within the "minimally acceptable" range (DeVellis, 2003, p. 95). Therefore, Cronbach's alpha values are sufficiently high in all cases to confirm that the items are a reliable measure of the various latent components.

It is worth noting that some of the items initially intended to measure scale 5 (*Promoting crosslinguistic connections*) loaded more strongly to scale 6 (*Understanding the language learning process*). As a result, scale 5 is only measured by 3 items. While more items would have been desirable, the high Cronbach's alpha values for this scale in the three language versions of the questionnaire (Cr. α = .89) suggests that the three items may already be providing a reliable measure of the construct, although more items would have also increased the reliability of the Cronbach's alpha value (DeVellis, 2003). Since eliminating this scale would have undermined the validity of the study, which aims to measure beliefs about multilingualism as a whole, this scale was kept and analysed as part of the results.

There exist previous doctoral dissertations which have reported similar shortcomings, with Csizér (2004) including a scale measured by as little as two items. This issue is considered one of the limitations of the current study, which further research should aim to overcome by adding more items to this scale.

Table 11

Number of components extracted for each scale, and the corresponding internal consistency reliability coefficients for the whole sample and each language subsample.

Scale	Label (number of items)	Components	Whole sample	Spanish	French	German
			Cr. α	Cr. α	Cr. α	Cr. α
1	To facilitate the L3 learning process (5)	1	.87	.87	.88	.84
2	To help students become effective multilingual communicators (5)	1	.92	.92	.92	.91
3	Advantages due to knowledge of other languages (6)	1	.71	.72	.71	.69
4	Advantages due to experience learning other languages (11)	1	.92	.93	.93	.90
5	Promoting crosslinguistic connections (3)	1	.89	.89	.89	.89
6	Understanding the language learning process (9)	1	.80	.79	.79	.83
7	Experience learning and using foreign languages (5)	1	.75	.81	.72	.71
8	Knowledge of and about foreign languages (5)	1	.82	.85	.79	.81
9	Training in SLA (6)	1	.87	.89	.88	.85
10	Training in TLA (4)	1	.89	.90	.90	.88

6.2 Research Question (1): What Beliefs Do L3 Teachers across Europe Hold about Multilingualism?

The aim of Research Question (1) is to gain an overview of L3 teachers' beliefs about multilingualism (i.e., L3 learning, L3 teaching and the L3 teacher) across Europe. In order to address this question, descriptive analyses were conducted for all the 10 scales. Correlations were also computed among the 10 scales to gain a better understanding of how L3 teachers' beliefs about the different scales interacted among each other. This initial analysis provides a general picture of L3 teachers' beliefs about multilingualism across Europe, and constitutes a good basis for later discussion about the variables which may contribute towards these beliefs.

6.2.1 Descriptive analysis

6.2.1.1 Section 2: Multilingualism in the target language classroom

Section 2 of the questionnaire focused on investigating teachers' beliefs regarding the use of other foreign languages in the L3 classroom. As Table 12 shows, teachers agreed moderately (M=3.66, SD=1.03) that using other foreign languages in the L3 classroom can be useful to facilitate and speed up the L3 learning process. This means that they are reasonably aware of how important it is to make connections between students' knowledge of other languages, particularly vocabulary and grammatical structures, and the new content being learnt in the L3. As research in psychology has demonstrated (e.g., Murray & Holmes, 1999), a key element in successful learning is to always try to link new knowledge with existing knowledge, and TLA literature argues that L3 learning can be greatly facilitated by doing this across languages and not only within the target language (Brohy, 2008; Jessner, 2006, 2008; Neuner, 2004, 2009; Neuner et al., 2008, 2009; Meiβner, 2000).

Table 12

Mean and standard deviation for scales in section 2.

Scales	Mean value	Standard Deviation
1 - To facilitate the L3 learning process	3.66	1.03
2 - To help students become effective multilingual communicators	3.12	1.20

Regarding the second construct, teachers agree to a certain extent (M=3.12, SD=1.20) on the importance of using other foreign languages in the L3 classroom to help their students become successful multilingual individuals who can benefit from the enhanced communication skills across languages. This involves helping them understand the challenges involved in communicating in multilingual environments and supporting them to develop their own strategies to address these challenges in real-life situations. As literature on multilingualism suggests (Candelier et al., 2007; Candelier et al., 2012; Jessner, 2006, 2008; Neuner, 2004), this should be one of the main goals of language education because students are likely to find themselves in situations where they will need to make use of their skills in more than one language to communicate and infer meanings across languages, rather than always using the L3 in isolation. This need is stressed by the ever-more globalised world students will have to live in, and particularly by the emergence of English as a lingua franca (Holliday, 2005, 2009; Seidlhofer, 2001, 2005, 2011; Widdowson, 1994, 1997, 2003). In this context, it is likely that the use of any L3 will often happen alongside English, requiring students to develop effective skills to understand and infer meanings in a variety of languages almost simultaneously.

However, while teachers do see the usefulness of incorporating other foreign languages in the L3 classroom with this later goal, they seem to allocate more importance to how the use of these languages can help enhance and speed up L3 learning. This is indicated by a statistically significant difference in the mean values of the two scales when conducting a t-test ($p<.001$). This finding is interesting as it suggests that teachers may use other foreign languages in the classroom mainly to relate new L3 content to students' knowledge of other languages (i.e., tapping on students' declarative knowledge of these languages). However, they may not be taking advantage of students' skills in these languages to support the

development of students' multilingual communication skills, that is, their ability to interact successfully and effectively in multilingual contexts.

This can be due to several reasons. First of all, L3 teaching has been traditionally seen as the teaching of any L2, without considering how many languages students know or have learnt before starting to learn the L3. As in the case of most L2s, teaching tends to focus on the target language in isolation from any other languages the students may know, including the mother tongue. This monolingual approach has been encouraged by several L2 teaching methods (e.g., audio-lingual method, communicative approaches), and is currently supported by the way in which language learning and teaching is framed within official programmes and national curriculums (Conteh, Copland & Creese, 2014; Cook, 1999; Gajo, 2014; Phillipson, 1992; Widdowson, 2003).

Teachers need to meet highly-demanding objectives in terms of students' achievement in national examinations and external certification tests. These exams tend to be monolingual by default and focus on the target language as an isolated entity rather than on the broader set of cross-linguistic communication skills students may be likely to need in the real world. This may be one of the reasons why teachers see the usefulness of students' other languages as insofar as they help students learn the L3 faster, and therefore perform better at these exams. However, teachers do not attach so much importance to the development of students' multilingual communication skills as these are not officially measured or included as learning objectives in L3 programmes, and therefore do not contribute towards the achievement of students' short-term goals in the L3, such as passing an L3 exam at the end of the course.

6.2.1.2 Section 3: Multilingual students

Section 3 of the questionnaire aimed to investigate teachers' beliefs regarding the specific learning characteristics of L3 learners and, by extension, their awareness of how L3 learning may differ from learning an L2. As shown in Table 13, teachers reported having

only a relative awareness of the advantages L3 learners may have counterparts thanks to their knowledge of other languages (scale 3, M=3.39, SD=0.70). These advantages may mainly be observed in instances of crosslinguistic interaction, which includes all phenomena of transfer, borrowing and code-switching which may happen consciously or unconsciously during the L3 learning process. It is important to note that teachers may not be aware of all such processes taking place in their students' L3 learning as many of these crosslinguistic interactions may happen at a mental or even unconscious level, and may not necessarily be shared with the teacher. However, teachers still perceive these processes in their L3 students when comparing them with monolingual learners.

Table 13

Mean and standard deviation for scales in section 3.

Scales	Mean value	Standard Deviation
3 - Advantages due to knowledge of other languages	3.39	0.70
4 - Advantages due to experience learning other languages	3.42	0.83

Table 13 also suggests that teachers have a similar awareness of how their multilingual learners may benefit from their experience learning other languages (scale 4, M=3.42, SD=0.83) than from their actual knowledge of languages (scale 3, M=3.39, SD=0.70). Students' prior experience learning languages has been identified in TLA literature as one of the main factors making L3 learning qualitatively different from L2 learning (Herdina & Jessner, 2002; Hufeisen, 1998; Hufeisen & Marx, 2007).

In interpreting these results, it is important to note that language teacher training courses do not usually include any specific information about TLA. This means that L3 teachers are rarely explained how L3 learning processes may differ from the L2 learning processes they get acquainted with during their training (Jessner, 2008; see 3.1.4 above). L3

teachers' awareness of the differences between L2 and L3 learning is expected, therefore, to stem mainly from their observation of these processes in their students.

However, many of the advantages in L3 learning happen at higher cognitive levels which are difficult to access by simple observation in the classroom, especially if teachers do not have any previous knowledge of what these advantages may look like. In order for L3 teaching to be fully efficient, L3 teachers would need to have a deeper understanding of both the theoretical underpinnings of L3 learning – through specialised modules on TLA – and of the procedural challenges involved in this process, which research argues can only be acquired through teachers' own experience as L3 learners themselves (Conteh, Copland and Creese, 2014; Ellis, 2004, 2012, 2013; Haukås, 2016; Jessner, 2006, 2008; Swan, 2012).

6.2.1.3 Section 4: Teachers' own experience learning foreign languages

This section of the questionnaire intended to investigate to what extent and in which ways teachers think that their own experience learning foreign languages may be beneficial for their teaching, particularly in the case of L3 teaching. As Table 14 shows, teachers are equally aware of how their own experience learning languages may be beneficial when teaching the target language, be it as an L2 or as an L3. Participants endorsed quite strongly both constructs (M=4.17, SD=.80 for scale 5 and SD=.67 for scale 6), which means that teachers do consider their personal experience learning and using languages as an important advantage both to understand better the language learning process that their students are going through, and to use their knowledge of other languages to encourage their students to make connections across their different linguistic systems.

Table 14

Mean and standard deviation for scales in section 4.

Scales	Mean value	Standard Deviation
5 - Promoting crosslinguistic connections	4.17	0.80
6 - Understanding the language learning process	4.17	0.67

These findings support existing results on the importance of language teachers having learnt foreign languages themselves (Conteh, Copland and Creese, 2014; Ellis, 2002, 2004, 2006, 2012, 2013; Haukås, 2016; Jessner, 2006, 2008; Medgyes, 1983, 1992, 1994; Swan, 2012; Widdowson, 2003). Specifically in TLA, Jessner (2008) has argued that ideal teachers of L3s will necessarily have to be multilingual individuals themselves with an array of experiences and techniques in L3 learning which they will be able to share and discuss with their students to help them in the process of becoming multilingual. On the basis of this, it is expected that teachers who are more multilingual (i.e., have studied more languages and to a higher proficiency level) will have answered higher on these two scales, as they are more likely to understand the benefit that their own experience brings to the students' L3 learning process. This hypothesis will be further explored in 6.3.3.5 below.

It is also interesting to compare teachers' strong agreement on the importance of their own language learning experience to enhance their teaching, with the usefulness they attach to using these languages in the classroom as a way to enhance students' learning of the L3. When conducting a paired-samples t-test between the two scales in this section and scale 1 (*To facilitate the L3 learning process*, see 6.2.1.1 above), teachers have answered significantly lower to this latter scale ($p<.001$). This suggests that, while they are aware of how their own experience learning and using languages can help them become better teachers, they are still reluctant to exploit their own and their students' linguistic knowledge as part of this enhanced teaching approach. This again leads to questions regarding the type of training that L3 teachers follow, and whether traditional monolingual approaches to language teaching may be hampering teachers' initiative to make full use of the tools at their disposal (i.e., their knowledge of other foreign languages) to facilitate and enhance their students' L3 learning.

6.2.1.4 Section 5: Teachers of multilingual students

In section 5 of the questionnaire, the aim was to investigate teachers' beliefs regarding the importance of four main elements which should be included in the training of L3 teachers: *Experience learning and using foreign languages, Knowledge of and about foreign languages, Training in SLA* and *Training in TLA.* The first, second and fourth constructs come directly from Jessner's (2008) profile of the multilingual teacher. For the purposes of this study, it was also judged relevant to measure the importance that teachers attach to training in SLA (scale 9) as opposed to training in TLA (scale 10), especially considering that hardly any language teacher training programmes across Europe seem to currently offer any specific modules or content on TLA (see 3.1.4 above).

Table 15

Mean and standard deviation for scales in section 5.

Scales	Mean value	Standard Deviation
7 - Experience learning and using foreign languages	4.12	0.75
8 - Knowledge of and about foreign languages	3.68	0.78
9 - Training in SLA	3.79	0.83
10 - Training in TLA	3.22	0.99

As the results in Table 15 show, participants believe that having experience learning and using foreign languages is very important for L3 teachers (M=4.12, SD=.75). As already suggested in section 6.2.1.3 above, teachers agree quite strongly on how their own experience learning and using foreign languages may help them become better teachers and how by relating to their own experiences they may be better able to understand and address the challenges that their students face throughout the language learning process.

However, participants have answered significantly lower on the importance for L3 teachers to have this prior experience learning and using foreign languages in comparison

with how beneficial they consider this experience to better understand the language learning process (paired-samples t-test between scale 7 – *Experience learning and using foreign languages* and scale 6 – *Understanding the language learning process*, $p=.02$). This may be due again to the fact that most language teacher training programmes make little mention to other languages or require teachers to have any knowledge of other languages besides the target language. On the basis of this, teachers may have a certain predisposition to answer that this experience is not that important in their training, regardless of how beneficial they actually consider this experience to be for their teaching. Despite this, it is worth noting that experience learning and using foreign languages is the element that teachers have considered most important of all the four elements measured in this section.

According to Table 15, participants were found to agree that knowledge of and about foreign languages is relatively important for L3 teachers (M=3.68, SD=.78), although the mean value for this scale is significantly lower than the mean value for scale 7 ($p<.001$). This suggests that participants consider the experience of learning and using a foreign language more important for L3 teaching than the actual knowledge of other languages. These findings contrast with those presented in section 6.2.1.3 above, where teachers attached exactly the same importance to both their personal language learning experience to better understand the learning process, and to the knowledge of other languages to encourage and facilitate crosslinguistic connections.

In this case, teachers have answered significantly lower on the scale 8 (*Knowledge of and about foreign languages*) than on scale 5 (*Promoting crosslinguistic connections*) in section 4 of the questionnaire ($p<.001$). Comparing these results with those in section 2 of the questionnaire in 6.2.1.1 above, teachers believe that knowing other foreign languages is as important as using other languages in the classroom may be useful to facilitate the L3 learning process, with very similar mean values for both scales (scale 1, M=3.66, SD=1.03,

paired-samples t-test with p=.49). However, there seems to exist a significant difference (p<.001) between the importance that teachers give to the knowledge of other languages in their training and the extent to which they think other languages could be useful in the classroom to help students become effective multilingual communicators. As suggested above, the findings in this section support the idea that teachers see other languages as useful if they facilitate L3 learning, but do not understand that their role as L3 teachers may involve helping students become multilingual individuals.

As suggested above, knowledge of other languages apart from the L3 have rarely been included as requirements for language teachers or been included in language teacher training programmes, which may be the reason why teachers have not identified this element as such an important part of L3 teacher training. Sharing their own experiences learning and using languages has, however, never been stigmatised in the same way as the actual use of the languages (Conteh, Copland & Creese, 2014; Cook, 1999; Gajo, 2014; Phillipson, 1992; Widdowson, 2003), so we may be facing a case where teachers are just providing what they consider to be the socially desired answer – how could knowing languages be so important if teachers are then discouraged to use them in the classroom? However, it is not possible to deduce from the data the reasons why experience of learning languages appears so significantly more important for L3 teachers than the actual knowledge of languages, while teachers believe that both elements are equally important and helpful in the L3 teaching process. Further qualitative research could help better understand this apparent contradiction in the data.

Finally, Table 15 also provides the results regarding the last two scales in this section: *Training in SLA* and *Training in TLA*. Teachers agree relatively strongly (M=3.79, SD.83) on the importance of specialised training in L2 learning and teaching as part of their teaching qualifications, even if they were asked to determine how important the presented elements

were for the training of L3 teachers. These results are even more surprising when compared to the importance that teachers have given to training in TLA as preparation for L3 teaching. Teachers consider that this is the least important element in the training of L3 teachers, and their answers have been significantly lower than for the previous scale *Training in SLA* (M=3.22, SD=.99, paired-samples t-test between both scales with $p<.001$).

Although these results may seem paradoxical, they are to a certain extent logical: TLA is very rarely included or presented even as a field of study in any language teacher training programmes across Europe, and most L3 teachers are actually trained to teach the L3 as an L2, without being made aware of how learning and teaching and L3 may be different from an L2. Therefore, it is highly likely that most teachers will have come across the term TLA for the first time when filling in the questionnaire, and they may not have really understood what TLA is or how it may differ from SLA, even if the questionnaire referred to these fields in lay terms (e.g., "the teaching and learning of second languages", "the teaching and learning of third languages").

It is interesting to note at this point that one of the items initially intended to measure *Training in TLA* did actually end up loading much more strongly onto the scale *Training in SLA*. This item asked teachers to say how important they consider it for L3 teachers to have *Familiarity with current models of multilingualism*, and it was the only item in this scale that included the word multilingualism rather than "the teaching and learning of a third languages". This constitutes again a finding in itself as it shows that teachers consider multilingualism to be part of SLA and separate from TLA, which already suggests teachers' unawareness of the existence of TLA as a field of study and its close relationship with multilingualism.

6.2.2 Correlations among scales

Table 16 below offers an overview of significant correlations among the 10 scales included in this study, which were obtained by calculating the Pearson's product-moment correlation coefficient (*r*) for each pair of scales. All correlations among scales came up significant at 0.01 level (two-tailed), and the table reflects in bold the correlations among scales within each section as these are initially the most interesting ones to look at.

Table 16

Correlations among scales for the whole sample

		1	2	3	4	5	6	7	8	9	10
1	To facilitate the L3 learning process	--									
2	To help students become effective multilingual communicators	.70	--								
3	Advantages due to knowledge of other languages	.30	.31	--							
4	Advantages due to experience learning other languages	.17	.25	.54	--						
5	Promoting crosslinguistic connections	.44	.31	.37	.29	--					
6	Understanding the language learning process	.24	.24	.40	.45	.63	--				
7	Experience learning and using foreign languages	.25	.29	.33	.30	.45	.48	--			
8	Knowledge of and about foreign languages	.31	.32	.30	.27	.45	.35	.59	--		
9	Training in SLA	.14	.19	.21	.28	.26	.32	.47	.40	--	
10	Training in TLA	.18	.29	.22	.29	.23	.26	.42	.49	.68	--

Note. All correlations among the scales are significant at the 0.01 level (2-tailed).

Scales 1 (*To facilitate the L3 learning process*) and 2 (*To help students become effective multilingual communicators*) belong to section 2 in the questionnaire, and regard the

usefulness of other languages in the classroom. The correlation between these two scales was found to be strong (*r*=.70), which leads to an interesting interpretation, since results in section 6.2.1.1 above showed that the mean value for the first scale was significantly higher than for the second scale. The strong correlation suggests that teachers who gave a high response to the first scale also tended to give a higher answer to the second scale. In sight of this, it could be argued that the more aware teachers are of the usefulness of other languages to enhance the L3 learning process, the more aware they also are of how these languages can be used to help students become effective communicators in multilingual contexts, although they do not consider both reasons to be equally important.

Scales 3 (*Advantages due to knowledge of other languages*) and 4 (*Advantages due to experience learning other languages*) were included in section 3 of the questionnaire, and focus on the advantages that teachers perceive L3 learners to have over their monolingual counterparts when learning another foreign language. In this case, there is a medium correlation between the two scales (*r*=.54), which is again interesting considering that the mean values for these two scales did not show any significant difference. This medium correlation could suggest that although the mean values are similar, not all the teachers who gave a high answer to one of the scales did consistently also give a high response to the other scale.

Scales 5 (*Promoting crosslinguistic connections*) and 6 (*Understanding the language learning process*) appeared in section 4 of the questionnaire, and aim to investigate how important teachers consider their own experience learning languages for their teaching. The correlation between these two scales is relatively strong (*r*=.63), which suggests that participants who answered highly in one of the scales did also do so in the other scale. These results support previous results presented in 6.2.1.3 above, where the mean values for both scales proved to be identical and the standard deviations very similar.

Scales 7 (*Experience learning and using foreign languages*), 8 (*Knowledge of and about foreign languages*), 9 (*Training in SLA*) and 10 (*Training in TLA*) constituted section 5 of the questionnaire, and their goal was to measure how important teachers consider four main elements in the training of L3 teachers, each element being measured by one scale. Scales 7 and 8 show a medium-strong correlation (r=.59), which again is interesting considering that the mean value of scale 7 was significantly higher than that of scale 8, as presented in 6.2.1.4 above. This medium-strong correlation suggests that participants who give high importance to teachers' own experience learning and using foreign languages do also tend to consider knowledge of and about foreign languages more important. Scales 9 and 10 show a strong correlation, which suggests that despite the significant differences between their means, teachers who consider one of these elements important also tend to answer more positively when asked about the other element.

Regarding the remaining correlations among scales 7 (*Experience learning and using foreign languages*), 8 (*Knowledge of and about foreign languages*), 9 (*Training in SLA*) and 10 (*Training in TLA*), these appear to be of medium strength. It is worth noting here that the correlations between scales 7 and 8, and 9 and 10 are proportionally inverse: this means that teachers who think experience learning and using foreign languages (scale 7) is more important also attached more importance to receiving training in SLA (scale 9), while teachers who answered higher on knowledge of and about foreign languages (scale 8) did also attach more importance to training in TLA (scale 10). These results are interesting since they again suggest that, although traditional SLA approaches may value teachers' experience of learning languages, using other foreign languages in the classroom may seem less acceptable. At the same time, teachers who are more aware of the importance of including TLA in L3 teacher training programmes are also more aware of how their own experience of learning languages may have a positive impact on their ability to teach L3s.

6.2.3 Answering Research Question (1): Summary and conclusions

Research Question (1) aimed at gaining a Europe-wide overview of L3 teachers' beliefs about multilingualism (i.e., L3 learning, L3 teaching and the L3 teacher). As explained in 5.1.1 above, each of these three main elements were measured by several constructs each. Table 2 also shows how each of the sections in the questionnaire focus on the different elements of multilingualism.

Section 3 addresses teachers' beliefs about the two unique characteristics of L3 learning: L3 students' advantages due to their knowledge of other languages (scale 3), which can lead to instances of crosslinguistic interaction (discussed in 3.2.2.1.1 above), and their cognitive and metacognitive advantages due to their previous experience learning languages (scale 4), which TLA research identified as the multilingualism factor (Herdina & Jessner, 2002; discussed in 3.2.2.1.2 above).

According to the results in this study, teachers are similarly aware of these two types of advantages, and teachers who acknowledge students' advantage from knowing other languages also recognise their advantage from their previous language learning experience. However, their awareness of these two concepts seems to be among the lowest of all the scales. This indicates that teachers' beliefs regarding the characteristics of L3 learning are the furthest away from current findings in TLA, in comparison with their beliefs about the other two main elements of multilingualism, that is, L3 teaching and the L3 teacher. Such results support Smith's (2015) findings in Canada, whose teachers showed only a very limited awareness of L3 learning processes. In contrast, participants in other studies, such as Otwinowska's (2013), De Angelis' (2011) and Mady's (2012), recognise the advantages that bilingual learners have in because of their prior language learning experiences, although they do not hold very adequate beliefs either about how languages interact in the mind and how L3 learning may actually happen.

Teachers' beliefs about L3 teaching is measured in sections 2 and 5. Section 2 focused on teachers' beliefs about the usefulness of incorporating students' other languages in L3 teaching to speed up the learning process (scale 1) and to help students become better multilingual communicators (scale 2). Section 5 addressed the importance that teachers assign to their own personal experience learning and using languages as empowering tools for more effective L3 teaching, by letting them both promote more meaningful crosslinguistic connections and understand better the language learning process.

In contrast with teachers' relative awareness of L3 learning processes, participants in this study seemed to have much stronger beliefs about the key elements in L3 teaching. Teachers seemed to greatly acknowledge how their own language learning experience can help them become better L3 teachers. Those who recognised the importance of using this experience to promote crosslinguistic connections in the L3 classroom also tended to believe that this experience could help them better understand the language learning process that their L3 students are going through. These results are in line with previous research, which highlighted the importance of teachers' own language learning experiences to shape their beliefs about language learning and teaching (Bailey et al., 1996; Flores, 2001; Haukås, 2016; Johnson, 1994; Lortie, 1975; Numrich, 1996; Wallace, 1991) and to understand better the process of becoming a multilingual person (Ellis, 2004, 2006, 2012, 2013).

Although teachers seemed well aware of how their knowledge of other languages could help them enhance their teaching, they seemed to believe that using these other languages in the classroom was only moderately justified to facilitate the L3 learning process, and to a significantly lesser extent to help their students learn to communicate effectively in multilingual contexts. Teachers who believed in the usefulness of other languages for the first purpose had an important tendency to also agree on the importance of incorporating these languages for the second purpose.

These results support existing findings regarding teachers' beliefs about the use of other languages in the classroom. For example, Vaish (2012) had already reported how her participants in bilingual programmes in Singapore recognised the usefulness of their L1 to learn English, but did not let their students use this language in the classroom. De Angelis' (2011) participants held similar beliefs, seeing students' other languages just as a source of interference for L3 learning. Supporting these results, some of Otwinowska's (2013) teachers even considered the use of other languages in the classroom as unprofessional. In contrast, Haukås' (2016) participants reported making frequent references to students' other languages, mainly their L1 and L2, although did not feel comfortable about introducing other languages known by the students if they did not master these languages themselves.

Section 5 addressed the profile of the L3 teacher, and included four key elements recommended in the training or background of L3 teachers: experience of learning and using other languages (scale 7), knowledge of and about other languages (scale 8), training in SLA (scale 9) and training in TLA (scale 10). Teachers seemed to believe that experience of learning and using other languages was the most important element in the training of L3 teachers. This is supported by Haukås' (2016) qualitative study with L3 teachers in Norway, whose participants emphasised the importance of their own multilingualism for their teaching. Training in SLA was the next most popular element, followed closely by knowledge of and about other languages, although teachers believed that these two elements were considerably less important than experience of learning and using other languages. Training in TLA was indeed the least popular, and teachers failed to believe that this element was as necessary in L3 teacher training programmes as training in SLA. On the contrary, L3 teachers in Mady's (2012) study in Canada criticised the lack of opportunities to learn about TLA, and recognised that they had never been appropriately trained to address the learning needs of bilingual children.

Supporting Mady's (2012) teachers, many authors in TLA argue that L3 teacher training courses should include modules focused specifically on L3 learning and teaching processes and techniques (Beacco & Byram, 2007; Candelier & Castellotti, 2013; Cavalli, 2005; Conteh, Copland & Creese, 2014; De Angelis, 2011; Jessner, 2008). The results from this study prove that teachers' beliefs about L3 learning processes are still far from what research has shown to be the reality, and training in TLA could help bridge this gap. It is also interesting that, although current training programmes for L3 teachers do not generally require trainees to have any experience of learning or using other languages besides the L3, participants in this study believe quite strongly on the usefulness of their own language learning and using experiences to enhance their teaching. As such, they have rated this experience as a key element in the ideal training of L3 teachers, which they believe is much more important than the actual knowledge of other languages. These results again suggest that some experience of learning and using languages, however minimal, may have invaluable benefits for the training of L3 teachers, and of language teachers in general (Bailey et al., 1996; Ellis, 2002, 2004, 2006, 2012, 2013; Jessner, 2008; Lortie, 1975; Lowe, 1987).

6.3 Research Question (2): What Background Variables Can Be Associated with Differences in L3 Teachers' Beliefs about Multilingualism?

Research Question (2) aims to identify background variables regarding the L3 students, the L3 teaching context and the linguistic and professional profile of L3 teachers which could be associated with significant differences in L3 teachers' beliefs about multilingualism, that is, about L3 learning, L3 teaching and the L3 teacher. In order to answer this question, a series of correlations and/or group-related statistical analyses were conducted between each of the background variables identified in Table 3 and each of the scales designed to measure teachers' beliefs about L3 learning, L3 teaching and the L3 teacher.

The questionnaire used in this study aimed to collect detailed information about the participants' linguistic and professional background, as well as about their students and the context in which they teach. On the basis of the information collected, a total of 19 background variables were selected and operationalized. These variables are listed in Table 3 above. Each background variable has been identified with a letter to facilitate cross-referencing. These background variables can be divided into three main types: those regarding the language learner (A to D), those regarding the teaching context (E and F), and those regarding the language teacher (G to S). This distinction is helpful when looking at how teachers' beliefs are associated with the different background variables, and determine to what extent future language policies and teacher training programmes can actually control for these variables. Results in this section are also presented according to these three categories.

Given the lack of previous research exploring the majority of these 19 background variables, there were no solid empirical grounds to formulate and test any hypothesis. Instead, a number of subquestions are suggested to guide the exploration and discussion of the results regarding each background variable.

6.3.1 Regarding the L3 learner

6.3.1.1 Students share a common L1

The goal of this section is to find out whether there exist any significant differences between teachers' answers to the different scales depending on whether their students share a common L1 or not. The importance of this variable was highlighted by some teachers in Pilot 1, which included a box at the end to enter any additional comments. The comments suggested that questions related to teachers' beliefs about behaviour in the classroom would depend on whether all the students actually had the same L1 or not, although they did not specify how these beliefs would differ. For this reason, it was decided to include this question separately in the questionnaire, and explore how teachers' answers vary on the basis of this

variable. Considering the vagueness of the comments received, the subquestion addressed in this section is as follows:

Do teachers whose students share a common L1 answer differently to any of the scales than teachers whose students do not share a common L1?

As Table 17 shows, the majority of teachers (79%) work with students who do share a common L1. The proportion of teachers whose students share a common L1 is consistent across the three language subsamples, with the French subsample accounting for a slightly lower percentage than the Spanish and German subsamples. It is important to note here that the question was whether most of the students share an L1 among them. This does not imply that they may necessarily share the L1 with the teachers, or that absolutely all the students in the classroom may share the same L1.

Table 17

Proportion of teachers whose students share and do not share an L1 for the whole sample and for each of the language subsamples

	Whole sample (N=984)	Spanish (n=290)	French (n=381)	German (n=313)
Most students do not share an L1	207 (21.0%)	52 (17.9%)	97 (25.5%)	58 (18.5%)
Most students share an L1	777 (79.0%)	238 (82.1%)	284 (74.5%)	255 (81.5%)

In order to explore the abovementioned subquestion, independent samples t-test was conducted for the whole sample. As can be observed in

Table 18, there does indeed seem to exist a significant difference between teachers' answers to scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 3 (*Advantages due to knowledge of other languages*), 5 (*Promoting crosslinguistic connections*), 8 (*Knowledge of and about foreign languages*), 9 (*Training in SLA*) and 10 (*Training in TLA*) based on whether their students share a common

L1 or not. In all cases where the group-based differences are significant, teachers whose students share their L1 have agreed more strongly with the scales than those whose students do not share an L1.

Table 18

Independent samples t-test for all the scales between teachers whose students share and do not share an L1.

Scale	Label	Groups	Mean	Standard Deviation	t	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. not shared L1	3.30	1.10	-5.709	**<.001**	1 < 2
		2. shared L1	3.75	.99			
2	To help students become effective multilingual communicators	1. not shared L1	2.77	1.22	-4.809	**<.001**	1 < 2
		2. shared L1	3.22	1.18			
3	Advantages due to knowledge of other languages	1. not shared L1	3.27	.73	-2.949	**.003**	1 < 2
		2. shared L1	3.43	.69			
4	Advantages due to experience learning other languages	1. not shared L1	3.33	.81	-1.787	.074	--
		2. shared L1	3.45	.83			
5	Promoting crosslinguistic connections	1. not shared L1	4.01	.83	-3.275	**.001**	1 < 2
		2. shared L1	4.22	.79			
6	Understanding the language learning process	1. not shared L1	4.11	.69	-1.603	.109	--
		2. shared L1	4.19	.67			
7	Experience learning and using foreign languages	1. not shared L1	4.08	.76	-.983	.326	--
		2. shared L1	4.14	.75			
8	Knowledge of and about foreign languages	1. not shared L1	3.46	.84	-4.722	**<.001**	1 < 2
		2. shared L1	3.74	.75			
9	Training in SLA	1. not shared L1	3.68	.86	-2.196	**.028**	1 < 2
		2. shared L1	3.82	.83			
10	Training in TLA	1. not shared L1	3.08	.96	-2.258	**.024**	1 < 2
		2. shared L1	3.26	1.01			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers whose students do not share an L1, n=207;

(2) teachers whose students share an L1, n=777.

From these results, it is possible to deduce that teachers whose students share an L1 seem more aware of how the use of other languages in the classroom can help their students both learn the L3 more easily (scale 1) and become better communicators in multilingual contexts (scale 2). Regarding these two scales about the usefulness of other languages in the classroom, the fact that students share a common L1 may make it easier for the teacher to incorporate the students' L1 and exploit their knowledge of this linguistic system in the learning of the L3. This means that the results of these two scales, particularly scale 1, may be misleading as teachers may be answering to this scale thinking mainly about the use of the students' L1 rather than referring to all the other languages that their students may know when they start learning the L3. This reason would, however, not explain the differences observed in responses to scale 2, which refers to the use of students' other languages to develop their ability to communicate in multilingual contexts. This may suggest that, in cases where students share the L1, teachers may be more likely to have an advanced knowledge of this language than in classrooms where students all have different mother tongues, and therefore teachers would be better able to exploit their knowledge of this common language with the students to incorporate the L1 in their teaching of the L3.

Teachers whose students share an L1 also believe more strongly that multilingual students have an advantage over their monolingual counterparts because of their knowledge of other languages (scale 3), but not because of their advanced cognitive and metacognitive skills developed through their experience of learning other languages (scale 4). Similarly, teachers with students who share a common L1 also consider that their own experience learning foreign languages is more helpful to promote crosslinguistic connections across students' languages throughout the L3 learning process (scale 5) than teachers whose students do not share an L1. However, this difference does not seem to apply to teachers' awareness of how their own experience learning languages may help them to understand the L3 learning

process and sympathise with their students (scale 6). There is no literature that may suggest plausible reasons to explain these differences, and further research should be conducted to explore why these two groups of teachers might be answering differently to these scales.

Regarding elements which teachers consider important in L3 teacher training programmes, teachers whose students share an L1 agree significantly more strongly on the importance of knowledge of and about foreign languages (scale 8), training in SLA (scale 9) and training in TLA (scale 10) than teachers with students who do not share a common L1. However, this difference is not significant for scale 7 (*Experience learning and using foreign languages*). As in the previous paragraph, there seems to be an emphasis on the advantages of knowing other languages rather than on the language learning experience. It is interesting that in this case there is a significant difference for both scales 9 (*Training in SLA*) and 10 (*Training in TLA*), which suggests that teachers whose students share an L1 agree more strongly with the importance of specialised training both in SLA and in TLA as part of their preparation to become successful L3 teachers.

6.3.1.2 Students' level of individual multilingualism (IM)

The first question in the survey asked teachers to estimate the level of individual multilingualism (IM) of their students. This was determined by asking teachers whether most of their students had never learnt another foreign language before the target language (i.e., Spanish, French or German), whether they knew or were in the process of learning one foreign language when they started learning the target language, or whether students already knew or were learning two or more foreign languages before the L3.

The goal of this question was, first of all, to make sure that all teachers included in the final sample were actually teaching the target languages as L3s, that is, their students knew or had learnt at least two languages (including their mother tongue) before they started learning the target language. This was intended to ensure that the sample in the study was constituted

only by participants teaching languages as L3s, which implies that their students needed to be by definition L3 learners. As explained in 5.1 above, an initial analysis of responses to this question led to excluding 68 participants from the sample since they seemed to be teaching the target languages as L2s rather than L3s.

Out of the remaining 984 teachers, the majority of them reported that their students already knew or were learning one other foreign language (74.39%), with the rest of the participants estimating that their students knew or were learning two or more foreign languages besides the target language (25.6%). Details about the proportions of teachers in each of these two groups for each of the language subsamples is available in Table 4 above.

The subquestion that this section aims to explore is whether teachers hold different beliefs about any of the concepts measured based on their students' level of IM, that is, whether their students are more or less multilingual. Therefore, the subquestion in this section is as follows:

Do teachers answer more positively to any of the scales, and particularly to scales 3 and 4, based on the level of students' individual multilingualism?

As

Table 19 shows, there do not exist any significant differences between students' level of IM and teachers' responses to any of the scales, not even for scales 3 (*Advantages due to knowledge of other languages*) and 4 (*Advantages due to experience learning other languages*). These two scales aimed to measure the extent to which teachers believe their multilingual students have an advantage when learning the L3 due to their knowledge of other languages (scale 3) and prior experience learning and using these languages (scale 4). The subquestion above suggested that the more multilingual students are, the more obvious these advantages will be for teachers, and therefore the more strongly they will agree with these two scales. In the case of scale 3 (*Advantages due to knowledge of other languages*),

teachers of students who are more multilingual are slightly more aware of the advantages that their students enjoy due to their knowledge of other languages, with the opposite pattern observed for scale 4 (*Advantages due to experience learning other languages*).

Table 19

Independent samples t-test for all the scales between teachers whose students know or are studying two languages, and those whose students know or are studying three or more languages (other than the L3 and including their mother tongue in both cases)

Scale	Label	Groups	Mean	Standard Deviation	t	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. two	3.66	1.05	-.078	.938	--
		2. three or more	3.66	.98			
2	To help students become effective multilingual communicators	1. two	3.15	1.21	1.391	.165	--
		2. three or more	3.03	1.17			
3	Advantages due to knowledge of other languages	1. two	3.39	.72	-.754	.451	--
		2. three or more	3.43	.67			
4	Advantages due to experience learning other languages	1. two	3.43	.84	.609	.542	--
		2. three or more	3.39	.79			
5	Promoting crosslinguistic connections	1. two	4.16	.81	-.783	.434	--
		2. three or more	4.21	.78			
6	Understanding the language learning process	1. two	4.18	.69	.139	.890	--
		2. three or more	4.17	.63			
7	Experience learning and using foreign languages	1. two	4.12	.74	-.171	.864	--
		2. three or more	4.13	.77			
8	Knowledge of foreign languages	1. two	3.67	.76	-.735	.463	--
		2. three or more	3.71	.83			
9	Training in SLA	1. two	3.77	.84	-1.136	.256	--
		2. three or more	3.84	.84			
10	Training in TLA	1. two	3.19	.99	-1.695	.090	--
		2. three or more	3.32	1.03			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers whose students know or are studying two other languages, n=732;

(2) teachers whose students know or are studying three or more other languages, n=252.

One of the reasons may be that all participants are by exclusion teaching multilingual students, so regardless of what their students' IM level is, they may be equally aware of the

advantages they have over their monolingual counterparts when learning the L3. It is also important to note that responses to this question are self-reported and correspond to teachers' perception or knowledge of how multilingual their students are, rather than on first-hand data about the students' linguistic background.

During Pilot 1, which included a box at the end of the questionnaire to leave any additional comments, and during the expert judgement rounds which the questionnaire went through as part of its validation process, concerns were raised about the extent to which language teachers may be aware of how multilingual their students are. The importance of this information has never been given any consideration in SLA studies, and as a result in language teacher training programmes. Currently, it does not seem to be common practice among language teachers to show any interest in students' other languages. This means that teachers' answers to this question may not have truthfully reflected the reality since teachers may not really know which languages their students actually know or are learning.

It would also be extremely interesting to collect more information about the students' level in each of the languages they know or have studied, as well as details about how these languages have been acquired, that is, whether students have grown up as bilinguals/multilinguals, whether they have lived in countries where these languages were spoken, whether they have learnt them in instruction settings, and so forth. All of these factors will contribute to students' linguistic profiles when they start learning the L3, and therefore could have an effect on teachers' beliefs about the concepts measured in this study.

In order to further investigate the way in which students' level of IM is associated with teachers' beliefs about multilingualism, genuine data about students' linguistic histories and profiles should be collected (Wattendorf & Festman, 2008). This would constitute a more reliable method to determine their level of IM. This would also allow understanding better

how students' different linguistic backgrounds may be affecting teachers' beliefs about the measured scales, if in any way at all.

6.3.1.3 Students' level in the L3

As a result of Pilot 1 and of the several expert judgement rounds during the validation stage of the questionnaire, some participants and experts seemed to point at students' level in the L3 as an element that could determine teacher's beliefs about some of the scales, particularly those related to the use of other languages in the L3 classroom (i.e., scales 1 and 2). For this reason, a question regarding students' level in the L3 was included in the questionnaire. The aim of this section is to explore to what extent students' level in the L3 could be associated with teachers' beliefs about the different concepts measured in this study.

Based on the discussions and feedback throughout the questionnaire validation process, it was suggested that the higher the students' level in the L3, the more useful teachers may find incorporating students' other languages in the L3 learning process. Some teachers argued that once students have reached a certain level in the L3, it is easier and more useful to organise activities that would require students to make connections across languages and use their knowledge of these languages in the classroom.

However, this is not supported by TLA research, which suggests that effective L3 teaching should help students exploit their knowledge of other languages all throughout the L3 learning process, from the very earliest stages of L3 learning to the more advanced levels (Brohy, 2008; Cavalli, 2005; Gajo, 2014; Meiβner, 2000; Neuner, 2004, 2009; Neuner et al., 2008, 2009; Wokusch, 2008). In order to explore how this issue is reflected in the data, the following subquestion was put forward:

Do teachers answer differently to scales 1 and 2 depending on the students' level in the L3?

It would also be expectable that, the higher the students' level in the L3, the longer they will have spent as L3 learners, and therefore the more obvious may be their advantages as L3 learners in comparison with their monolingual counterparts (De Bot, 2004; Dulay et al., 1982; Herdina & Jessner, 2002; Hufeisen, 1998; Hufeisen & Marx, 2007). In order to investigate this idea, a second subquestion was suggested:

Do teachers answer more positively to scales 3 and 4 depending on the students' level in the L3?

As Table 20 shows, there do not exist any group-based differences in teachers' responses to scales (*To facilitate the L3 learning process*) and 2 (*To help students become effective multilingual communicators*) associated to the students' level in the L3. This shows participants' support for claims in TLA research suggesting that the incorporation of students' other languages may be useful throughout the whole L3 learning process.

Regarding the second subquestion, it is possible to observe in Table 20 that there seems to exist a significant difference only in the way teachers answer to scale 4 (*Advantages due to experience learning other languages*). The results from the one-way ANOVA test suggest that teachers whose students have a lower level in the L3 endorsed scale 4 significantly less than participants who teach intermediate and advanced levels. This means that teachers of lower levels perceive less L3 learners' enhanced language learning skills developed through their experience learning other languages.

Table 20

One-way ANOVA test for all the scales depending on students' level in the L3

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1 - A1-A2	3.72	.99	1.579	.207	--
		2 - B1-B2	3.60	1.06			
		3 - C1-C2	3.62	1.11			
2	To help students	1 - A1-A2	3.15	1.17	.720	.487	--

	become effective multilingual communicators	2 - B1-B2	3.11	1.23			
		3 - C1-C2	2.97	1.32			
3	Advantages due to knowledge of other languages	1 - A1-A2	3.37	.68	.727	.484	--
		2 - B1-B2	3.43	.73			
		3 - C1-C2	3.43	.70			
4	Advantages due to experience learning other languages	1 - A1-A2	3.36	.80	3.410	.033	1 < 2, 3
		2 - B1-B2	3.49	.84			
		3 - C1-C2	3.52	.94			
5	Promoting crosslinguistic connections	1 - A1-A2	4.16	.79	.274	.760	--
		2 - B1-B2	4.19	.81			
		3 - C1-C2	4.20	.86			
6	Understanding the language learning process	1 - A1-A2	4.16	.68	.741	.477	--
		2 - B1-B2	4.19	.68			
		3 - C1-C2	4.26	.63			
7	Experience learning and using foreign languages	1 - A1-A2	4.08	.78	2.329	.098	--
		2 - B1-B2	4.16	.71			
		3 - C1-C2	4.26	.76			
8	Knowledge of and about foreign languages	1 - A1-A2	3.64	.78	2.615	.074	--
		2 - B1-B2	3.71	.77			
		3 - C1-C2	3.86	.83			
9	Training in SLA	1 - A1-A2	3.76	.81	1.369	.255	--
		2 - B1-B2	3.81	.85			
		3 - C1-C2	3.94	.95			
10	Training in TLA	1 - A1-A2	3.17	.95	2.190	.112	--
		2 - B1-B2	3.26	1.05			
		3 - C1-C2	3.42	1.08			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers whose students have A1-A2 level in the L3, n=505;

(2) teachers whose students have B1-B2 level in the L3, n=418;

(3) teachers whose students have C1-C2 level in the L3, n=61.

Although it is difficult to ascertain the reason for this association, it could be argued that, considering the lack of detailed information about students' linguistic backgrounds, students who have been considered as L3 learners in this study may actually have very low levels of individual multilingualism (IM), and therefore very limited experience learning other languages before starting to learnt the L3. As a result, the more advanced they become

in the L3, the more language learning experience they will have accumulated, and therefore the more obvious the role of this experience may be to support the L3 learning process.

Considering that over half of the teachers are teaching beginner levels in the L3 (A1-A2 CEFR levels), this could also explain why teachers have not agreed more strongly on any of the scales in section 3 of the questionnaire regarding the advantages L3 learners have due to their knowledge of other languages and experience learning these languages. Although for students the target language is by definition "the third language that [they have] contact with during her/his lifetime" (Jessner, 2008, p. 18), students may certainly still be fully engaged in the learning of their L2 and may not have attained a sufficient proficiency in the L2 to trigger the bilingualism effect in L3 learning (Bialystok, Craik & Luk, 2012; Cenoz, 2003a; Hammarberg, 2001).

Their awareness of these advantages may increase the more multilingual their students become as they progress through the learning of the L3. However, there do not exist any significant group-based differences in teachers' responses to scale 3 (*Advantages due to knowledge of other languages*), which suggests that this incremental awareness may relate only to the development of students' cognitive and metacognitive skills than to an increased use of students' other languages to support their learning of the L3.

6.3.1.4 Students' age

Students' age also emerged as a potentially interesting variable that may be associated with teachers' beliefs, according to the feedback received in Pilot 1 and the several expert judgement rounds. It was suggested that teachers' answers to the different scales may vary depending on the age of the students. The assumption was that the younger the students, the more unlikely teachers would be to agree with certain scales, such as those regarding the use of other languages in the classroom. This would logically follow from the fact that younger students will have less experience learning other languages, and possibly also a lower level in

any language they may have learnt, which would make it more challenging for teachers to see the usefulness of exploiting learning tools which are hardly emerging at that age.

This would support TLA discussions about how older students have usually more advanced metalinguistic awareness, and are therefore much faster language learners than younger students (Cenoz, 2001, 2003). On the basis of these claims and discussions, the following question is explored:

Do teachers answer differently to any of the scales, and particularly to scales 1, 2, 3, 4, 5 and 8, depending on their students' age?

Table 9 in the description of the participants (see 5.1 above) offered a detailed picture of the proportion of teachers whose students are in each age range. As highlighted in that section, the vast majority of the participants (97.6%) are teaching students between 12 and 49 (i.e., in groups 2, 3 and 4 in

Table 21 below). The number of teachers across these three groups is, however, relatively even. This means that any group-based differences involving groups 1 and 5 must be interpreted with caution due to the small number of participants in those two groups.

As it can be observed in

Table 21, there are some differences in the way teachers respond to scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 5 (*Promoting crosslinguistic connections*), 8 (*Knowledge of and about foreign languages*) and 10 (*Training in TLA*) depending on the age group of their students. However, post-hoc Duncan analyses shows that, in the cases of scales 1 and 5, the differences across groups are only significant between group 1 (ages 6-11) and the rest of the groups. These results may confirm that teachers working with younger students may see the use of other languages less helpful to facilitate L3 learning, and agree less with the importance of their own experience learning languages to promote crosslinguistic connections.

Nevertheless, the small sample size for group 1 does not allow generalising these results, as it is also the case with the differences observed between teachers' responses to scales 2 (*To help students become effective multilingual communicators*), 8 (*Knowledge of and about foreign languages*) and 10 (*Training in TLA*) for group 1, and scale 10 for group 5. Further research with even sample sizes across all the age group should be conducted to confirm whether these differences actually exist in the wider population of L3 teachers, and to explore plausible reasons why students' age may affect teachers' beliefs about the measured scales.

Table 21

One-way ANOVA test for all the scales depending on the students' age

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. 6-11	2.70	1.20	12.149	**<.001**	1 < 2, 3, 4, 5
		2. 12-17	3.83	.94			
		3. 18-23	3.69	1.00			
		4. 24-49	3.33	1.14			
		5. 50+	3.43	.90			
2	To help students become effective multilingual communicators	1. 6-11	2.54	1.08	23.394	**<.001**	1, 4 < 2, 3, 5
		2. 12-17	3.48	1.07			
		3. 18-23	3.05	1.22			
		4. 24-49	2.56	1.20			
		5. 50+	2.95	1.18			
3	Advantages due to knowledge of other languages	1. 6-11	3.43	.81	.888	.470	--
		2. 12-17	3.39	.70			
		3. 18-23	3.44	.70			
		4. 24-49	3.34	.71			
		5. 50+	3.63	.49			
4	Advantages due to experience learning other languages	1. 6-11	3.39	.62	1.809	.125	--
		2. 12-17	3.35	.84			
		3. 18-23	3.50	.85			
		4. 24-49	3.43	.79			
		5. 50+	3.70	.56			
5	Promoting crosslinguistic connections	1. 6-11	3.54	1.07	4.839	**.001**	1 < 2, 3, 4, 5
		2. 12-17	4.21	.77			
		3. 18-23	4.25	.78			

		4. 24-49	4.05	.85			
		5. 50+	3.92	.79			
6	Understanding the language learning process	1. 6-11	3.92	1.01	1.214	.303	--
		2. 12-17	4.20	.66			
		3. 18-23	4.20	.68			
		4. 24-49	4.12	.67			
		5. 50+	4.04	.72			
7	Experience learning and using foreign languages	1. 6-11	4.23	.54	1.696	.149	--
		2. 12-17	4.13	.73			
		3. 18-23	4.17	.75			
		4. 24-49	4.01	.80			
		5. 50+	4.13	.61			
8	Knowledge of and about foreign languages	1. 6-11	3.25	.75	7.597	**<.001**	1, 4 < 2, 3, 5
		2. 12-17	3.73	.73			
		3. 18-23	3.78	.77			
		4. 24-49	3.45	.85			
		5. 50+	3.73	.67			
9	Training in SLA	1. 6-11	3.94	.66	1.589	.175	--
		2. 12-17	3.79	.79			
		3. 18-23	3.85	.90			
		4. 24-49	3.67	.85			
		5. 50+	3.83	.83			
10	Training in TLA	1. 6-11	3.38	.91	3.761	**.005**	4 < 3 < 1, 2 < 5
		2. 12-17	3.32	.94			
		3. 18-23	3.22	1.06			
		4. 24-49	3.00	.99			
		5. 50+	3.47	1.10			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed)

(1) teachers whose students are 6-11, n=16;

(2) teachers whose students are 12-17, n=419;

(3) teachers whose students are 18-23, n=339;

(4) teachers whose students are 24-49, n=202;

(5) teachers whose students are over 50, n=8.

Which is more interesting in

Table 21 is the fact that teachers in group 4 (students between the ages 24-49) have agreed significantly less with scales 2 (*To help students become effective multilingual communicators*) and 8 (*Knowledge of and about foreign languages*) than teachers in groups 2 and 3, which are the other two large groups. In the case of scale 2, this would suggest that

teachers with students in this age range attach less importance to the use of other languages in the classroom to help their students become better multilingual communicators, in comparison with teachers in the lower age ranges (12-17 and 18-23). This could be due to several reasons, such as the fact that older L3 learners may have already developed those multilingual communication skills and teachers may see less need to devote classroom time for this purpose.

The reasons why students are learning the L3 may also vary across the different age ranges, and may impact the need to develop these broader communication skills. While younger students may be learning languages with the goal of participating in mobility programmes to study or work in other countries, where communicating in and across several languages may be necessary, older students may be learning the L3 for professional development purposes or to integrate in the host country after having to relocate for political or financial reasons. This may explain the difference observed between teachers' answers to this scale.

Teachers' answers to scale 8 (*Knowledge of and about foreign languages*) show a similar pattern to scale 2 (*To help students become effective multilingual communicators*), with participants in group 4 considering that knowledge of and about foreign languages is significantly less important in L3 teacher training than teachers with younger students (groups 2 and 3). These results could also be due to similar reasons to those postulated for responses to scale 2, and further research would be necessary to determine whether the observed pattern is generalizable to the population of L3 teachers in Europe, and how students' age may be associated to teachers' beliefs about these concepts.

In the case of scale 10 (*Training in TLA*), it is interesting that there seems to exist significant differences across most of the age groups. Ignoring groups 1 and 5 due to the small sample size, it is worth noting that the same pattern observed for scales 2 (*To help*

students become effective multilingual communicators) and 8 (*Knowledge of and about foreign languages*) is repeated here for scale 10. Teachers in group 4 agree less strongly with the importance of including specialised training in TLA as part of L3 teacher education than teachers in group 3, and in turn this group seems to have answered less positively to this scale than teachers in group 2. This pattern suggests that the younger the students, the more important participants consider for L3 teachers to receive training in L3 learning and teaching.

One of the reasons for these results, at least in the European context, is the large number of students with immigrant backgrounds who have been entering mainstream educational systems for the past few years. These students' immigrant backgrounds also very often involve students knowing and using other languages at home different from the language of the host country (European Commission, 2015). The later affluxes of immigration groups towards Europe have highlighted the lack of specialised training that teachers receive to handle the linguistic diversity in their classrooms. In turn, this may have motivated teachers who usually engage with these age groups to identify training in L3 teaching and learning as more important than teachers who work with older students whose linguistic background may not be so diverse.

6.3.2 Regarding the L3 teaching context

6.3.2.1 Multilingual countries

As discussed in 3.1.1 above, in Europe there are several countries that can be considered bilingual or multilingual. In this study, Belgium, Switzerland, Luxembourg and Malta are considered as *multilingual countries*, and all other countries are referred to as *non-multilingual countries*. The specific linguistic situation in each of these multilingual countries is also discussed in 3.1.1 above.

Inhabitants in these countries may not all be bi-/multilingual themselves, but will certainly be more exposed to other languages being used around them. As a result, teachers in these countries could be more aware of multilingualism issues, including the elements investigated in this study. In order to explore this hypothesis, the following subquestion was examined:

Do teachers who live in multilingual countries answer more positively to any of the scales, and particularly to scales 2, 3, 4, 5, 6, 7 and 8?

As shown in

Table 22, there only seems to be a significant difference between the answers of teachers in multilingual and non-multilingual countries to scales 2 (*To help students become effective multilingual communicators*) and 4 (*Advantages due to experience learning other languages*). Furthermore, when we look at how the two groups have responded to these scales, it is possible to observe that teachers in non-multilingual countries have agreed more positively to these two scales than teachers in multilingual countries.

Teachers in multilingual countries do not only seem to be answering slightly more negatively to all the scales (with exception of scale 8 – *Knowledge of and about foreign languages*), but they have also agreed significantly less with scales 2 (*To help students become effective multilingual communicators*) and 4 (*Advantages due to experience learning other languages*). This is particularly interesting in the case of scale 2 regarding the importance that teachers attach to incorporating students' other languages to help students become better multilingual communicators, which should be more obvious for teachers living in multilingual countries where this sort of communication must almost necessarily be part of people's everyday lives.

Table 22

Independent samples t-test for all the scales between teachers in multilingual and non-multilingual countries

Scale	Label	Groups	Mean	Standard Deviation	t	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. non-multilingual	3.67	1.03	.846	.398	--
		2. multilingual	3.57	1.04			
2	To help students become effective multilingual communicators	1. non-multilingual	3.15	1.20	2.654	**.008**	1 > 2
		2. multilingual	2.80	1.24			
3	Advantages due to knowledge of other languages	1. non-multilingual	3.40	.70	.448	.654	--
		2. multilingual	3.37	.72			
4	Advantages due to experience learning other languages	1. non-multilingual	3.44	.83	2.167	**.030**	1 > 2
		2. multilingual	3.24	.78			
5	Promoting crosslinguistic connections	1. non-multilingual	4.19	.80	1.415	.157	--
		2. multilingual	4.06	.85			
6	Understanding the language learning process	1. non-multilingual	4.19	.67	1.336	.182	--
		2. multilingual	4.08	.69			
7	Experience learning and using foreign languages	1. non-multilingual	4.12	.76	-.908	.364	--
		2. multilingual	4.19	.69			
8	Knowledge of and about foreign languages	1. non-multilingual	3.70	.77	1.592	.112	--
		2. multilingual	3.56	.85			
9	Training in SLA	1. non-multilingual	3.80	.83	.664	.507	--
		2. multilingual	3.73	.89			
10	Training in TLA	1. non-multilingual	3.24	.99	1.278	.202	--
		2. multilingual	3.09	1.07			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers in non-multilingual countries, n=896;

(2) teachers in multilingual countries, n=88.

In the case of scale 4 (*Advantages due to experience learning other languages*), it could be argued that in multilingual countries many teachers and students may have actually acquired some of their languages thanks to being brought up in a bilingual family or in a bi-/multilingual education system, as opposed to having learnt these languages merely in instruction settings. This means that, despite students being multilingual, they may not have actually gone through the process of learning a language as systematically as multilingual

students in non-multilingual countries may have had to do, that is, in an instructional setting. Students may, in fact, be more multilingual, but their bilingual advantage may be hindered by their lack of experience of learning a foreign language in a classroom setting.

Although interesting, the results in this section show once more the complexity involved in the exploration of multilingualism issues, and the many layers of reasons which could be underpinning teachers' beliefs about these issues. The results also question whether teachers who are exposed to multilingualism and L3 learning on a daily basis are able to identify and react to these issues just from their observation in the classroom and in society, or whether they would also benefit from certain guidance which could be ideally provided during teacher training programmes.

6.3.2.2 Countries with high level of proficiency in an L2

Following from the discussion in 6.3.2.1, the aim of this section is to explore to what extent teachers' beliefs vary according to the students' assumed level of proficiency in the first foreign language, that is, in students' L2. Students' level of proficiency in the L2 is important because it determines to a large extent whether the target language is truly being learnt as an L3. Although all participants' students are supposed to be learning the target language as an L3, research in TLA suggests that there may be a minimum level of proficiency that needs to be achieved in the L2 before this knowledge and learning experience in the L2 has a catalytic effect in the L3 learning process (Bialystok, Craik & Luk, 2012; Cenoz, 2003a; Hammarberg, 2001).

The motivation to analyse the data from this perspective also follows from the discussion in section 6.3.1.3 above, where results demonstrated that the higher the students' level in the L3, the more teachers seemed to notice the advantages linked to students' language learning experience. It was argued that these results may be due to the fact that students do not necessarily have much language learning experience before starting learning

the L3. In these cases, it would be students' increasing experience in the language learning process, acquired through the learning of the L3 rather than the L2, which would make the learning advantages become more obvious to teachers whose students have more advanced L3 proficiency levels.

In order to further explore this assumption, the data was recoded and analysed by dividing countries into two groups based on whether most of the population have a relatively high level of proficiency in an L2 or not. In those countries where an L2 is widely spoken, it can be assumed that most students will be L3 learners in the strictest sense since they will already have an acceptable command of the L2 at the moment of embarking on the L3 learning process. As a result, teachers in these countries should be more engaged in the teaching of the target language as an L3, and therefore may have more positive and realistic beliefs about multilingualism. The following subquestion was explored to shed light on this assumption:

Do teachers who live in a country where most of the population has a relatively high level of proficiency in an L2 answer more positively to any of the scales?

The first step is to determine what can be considered as "a relatively high level of proficiency in an L2", and how to identify countries where most of the population meet this criterion. Although the questionnaire did not collect data on students' proficiency in other languages, it is possible to use publicly available information about European citizens' language skills. There currently exist a number of surveys which have aimed to capture Europeans' proficiency in foreign languages (EF EPI, ESLC, Eurobarometer, etc.) and which were reviewed before selecting the results in the Eurobarometer 386 (European Commission, 2012a).

The results from the Eurobarometer 386 survey were preferred because of the reliability of the information sources, the large number of countries included, and the

representativeness of the sample, which includes the whole population rather than a self-selected sample (as it is the case in the EF EPI) or an age-specific portion of the population (the ESLC only tested students around age 15). Furthermore, this survey does not focus only on English but rather on the participants' skills in the first, second and third languages, whichever these may be. The report also provides detailed information about each country, the most common L2s and L3s, and the percentage of the population claiming to be at the different proficiency levels for each of the languages included.

Thanks to these detailed data, it was possible to select countries where at least 70% of the population claimed to have an acceptable level of proficiency in one L2. According to Table D48T in the Special Eurobarometer 386 (European Commission, 2012a, p.15), the countries which meet this criterion are Austria, Cyprus, Denmark, Finland, Lithuania, Luxembourg, Malta, Netherlands and Sweden. Although the European Commission did not report results for Norway, this country was also included because of its populations' well-known high proficiency in English, which is supported by the EF EPI (EF, 2015). Despite their official multilingual status, Belgium and Switzerland did not reach the abovementioned threshold, and therefore were not considered as countries with a high level of proficiency in the L2 (European Commission, 2012a; Federal Statistical Office, 2016). The main L2 is in all cases English, with the exception of Lithuania where the main L2 is Russian.

However, the results from the Eurobarometer survey also have limitations which must be considered when interpreting the findings in this section. First of all, the results from the Eurobarometer survey only reflect self-reported levels of proficiency which are not tested or triangulated in any way. This provides an indication of the proficiency level that European citizens may have but does not offer a systematic, standardised and verified picture of their actual proficiency levels. Furthermore, the Eurobarometer survey uses a somewhat sketchy

parameter to determine what constitutes an acceptable level of proficiency, which they define as "speak well enough in order to be able to have a conversation" (p. 28) in a given language. Although the results from this survey may not be perfectly accurate, for the purpose of this study they provide a useful indication of L2 proficiency levels across the whole population in each country and offer an interesting additional layer for analysis.

With regard to teachers' beliefs on the basis of whether they live in a country with a relatively high level of proficiency in an L2 or not, Table 23 shows that there seems to exist a significant difference only for scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 4 (*Advantages due to experience learning other languages*) and 10 (*Training in TLA*). Teachers in countries with a high level in an L2 have answered more positively to scales 1 and 2, which refer to the usefulness of incorporating students' other languages into the L3 learning process. Teachers in these countries agree more strongly with the usefulness of students' other languages both to facilitate the L3 learning process and to help students develop the communication skills necessary to interact in multilingual contexts. This may be due to the fact that, according to how this variable was defined, most of both the teachers and the students have a relatively high level of proficiency in the same language (i.e., the L2), which may be used as a common pivot language both to support the learning of the L3 and to develop students' multilingual communication skills.

Table 23

Independent samples t-test for all the scales between teachers in countries with and without a high level of proficiency in an L2

Scale	Label	Groups	Mean	Standard Deviation	t	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. not high L2 proficiency	3.59	1.05	-3.640	**<.001**	1 < 2
		2. high L2 proficiency	3.85	.96			
2	To help students	1. not high L2	2.99	1.20	-5.610	**<.001**	1 < 2

	become effective multilingual communicators	proficiency 2. high L2 proficiency	3.47	1.14			
3	Advantages due to knowledge of other languages	1. not high L2 proficiency	3.40	.70	.103	.918	--
		2. high L2 proficiency	3.39	.71			
4	Advantages due to experience learning other languages	1. not high L2 proficiency	3.47	.83	3.085	**.002**	1 > 2
		2. high L2 proficiency	3.29	.82			
5	Promoting crosslinguistic connections	1. not high L2 proficiency	4.15	.82	-1.725	.085	--
		2. high L2 proficiency	4.25	.76			
6	Understanding the language learning process	1. not high L2 proficiency	4.18	.68	.086	.931	--
		2. high L2 proficiency	4.17	.66			
7	Experience learning and using foreign languages	1. not high L2 proficiency	4.11	.75	-.875	.382	--
		2. high L2 proficiency	4.16	.74			
8	Knowledge of and about foreign languages	1. not high L2 proficiency	3.67	.79	-.625	.532	--
		2. high L2 proficiency	3.71	.75			
9	Training in SLA	1. not high L2 proficiency	3.79	.85	.171	.865	--
		2. high L2 proficiency	3.78	.81			
10	Training in TLA	1. not high L2 proficiency	3.16	1.00	-3.376	**.001**	1 < 2
		2. high L2 proficiency	3.40	.96			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers in countries without high proficiency in an L2, n=725;

(2) teachers in countries with high proficiency in an L2, n=259.

These results are very interesting, especially if they are compared with those in section 6.3.2.1 above. When teachers' responses to scales 1 and 2 were compared on the basis of whether they work in a multilingual country or not, no significant differences were observed for scale 1 (*To facilitate the L3 learning process*), and it actually seemed like teachers in non-multilingual countries endorsed scale 2 (*To help students become effective*

multilingual communicators) more than those in multilingual countries. These findings were considered surprising, as the discussion above suggested that teachers in more multilingual countries would have been more aware of how incorporating students' other languages in the L3 learning process could help them develop the type of multilingual communication skills which would allegedly be needed to successfully communicate in a country with societal multilingualism.

Results in this section show a different picture, and suggest that teachers' awareness of the usefulness of incorporating students' other languages in L3 teaching may be associated with a combination of the IM levels of both teachers and students, rather than with societal multilingualism in a given country. While in multilingual countries (as defined in section 6.3.2.1) people live in a multilingual society but may or may not be multilingual themselves, people living in countries where most of the population have a high level of proficiency in an L2 will by definition be partially bilingual and have experience learning at least one foreign language.

Teachers' responses to scale 10 (*Training in TLA*) follow a similar pattern, with teachers in countries with high proficiency in an L2 recognising the importance of training in TLA significantly more than teachers in the rest of the countries. It was anticipated that teachers in multilingual countries would have endorsed this scale more than teachers in non-multilingual countries, but the results in 6.3.2.1 above did not support this hypothesis. On the contrary, it appears that it is the fact that most of the population have a relatively high level in an L2 which can be associated with the importance that teachers give to receiving specialised training in TLA. This could be explained by the fact that, opposite to what may be the case in multilingual countries, most people in countries with a high L2 level will have learnt this language as a foreign language in an instruction setting. This experience could in turn have made it more obvious for these teachers how learning and teaching an L3 differs

from learning an L2, and how they could benefit from some training aimed specifically at understanding the main principles of TLA.

Finally, teachers in countries with a high level in an L2 do not have significantly different beliefs about L3 learners' advantages due to their knowledge of other languages in comparison with teachers in countries without a high level of proficiency in an L2. This seems logical as the knowledge of one foreign language, even if at a high level of proficiency, may not provide a broad enough basis to fully benefit from these advantages in the way that a more multilingual person would do through their knowledge of several linguistic systems. However, teachers in countries with a high L2 level have answered significantly lower to scale 4 (*Advantages due to experience learning other languages*), without an obvious explanation for these results. Further research from a qualitative perspective would allow exploring the reasons underlying these differences.

6.3.3 Regarding the L3 teacher

6.3.3.1 Native and non-native speakers of the L3

There is hardly any literature that explores how native and non-native speakers of the L3 may differ in L3 teaching. However, significant work has been conducted in SLA (Cook, 1999; Medgyes, 1983, 1992, 1994; Seidlhofer, 1996; Widdowson, 2003) which can be useful to inform this discussion in TLA, as per 3.2.4 above.

Based on the conclusions above, the subquestion that will be explored in this section is as follows:

Do native and non-native teachers answer differently to any of the scales, particularly those regarding the use of other languages in L3 learning (scales 1, 2, 3, 5, 8) and the importance of students' and teachers' language learning experience in the L3 learning process (scales 4, 6 and 7)?

As per Table 24, independent samples t-tests show that teachers do indeed answer in a significantly different way to some of the scales in the subquestion above depending on whether they are native speakers of the L3 or not. Non-native teachers of the L3 agreed more strongly with scale 1 (*To facilitate the L3 learning process*), which means that they consider students' other languages more useful to facilitate the L3 learning process than their native counterparts. However, native teachers answered more negatively to scale 2 (*To help students become effective multilingual communicators*) than native teachers did. These findings suggest that non-native teachers understand the usefulness of students' other languages mainly to speed up and facilitate the learning of the L3, while native teachers see how the use of these languages can help students become better communicators in multilingual contexts, rather than just focus on its effect on the L3 learning process.

Table 24

Independent samples t-test for all the scales between native (N) and non-native (NN) teachers

Scale	Label	Groups	Mean	Standard Deviation	t	Sig.	Group-based differences*
1	To facilitate the L3 learning process	non-native	3.90	.92	7.784	**<.001**	NN > N
		native	3.40	1.09			
2	To help students become effective multilingual communicators	non-native	3.49	1.12	10.661	**<.001**	NN > N
		native	2.71	1.16			
3	Advantages due to knowledge of other languages	non-native	3.43	.71	1.469	.142	--
		native	3.36	.69			
4	Advantages due to experience learning other languages	non-native	3.37	.85	-1.988	**.047**	NN < N
		native	3.48	.80			
5	Promoting crosslinguistic connections	non-native	4.22	.78	1.905	.057	--
		native	4.12	.82			
6	Understanding the	non-native	4.20	.68	1.278	.202	--

	language learning process	native	4.15	.67			
7	Experience learning and using foreign languages	non-native	4.14	.73	.694	.488	--
		native	4.11	.77			
8	Knowledge of and about foreign languages	non-native	3.73	.76	2.116	**.035**	NN > N
		native	3.63	.80			
9	Training in SLA	non-native	3.77	.83	-1.005	.315	--
		native	3.82	.85			
10	Training in TLA	non-native	3.26	.96	1.097	.273	--
		native	3.19	1.04			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).
(1) native speaker teachers of the L3, n=467;
(2) non-native speaker teachers of the L3, n=517.

Interestingly, native and non-native teachers have not answered in a significantly different way to scale 3 regarding the advantages that L3 learners have because of their previous knowledge of other languages. This means that both groups of teachers are similarly aware of how students may benefit from their knowledge of other languages, regardless of the purpose for which they think it is best to use them in the classroom. Both native and non-native teachers also agree on the importance of their own experience learning languages to encourage their students making connections across their languages (scale 5). However, these two groups of teachers disagree on the importance they attach to the knowledge of other foreign languages in L3 teacher training programmes (scale 8), with non-native teachers considering this element significantly more important than native teachers.

In what regards the scales about the importance of students' and teachers' prior language learning experience, it is interesting that there seems to exist a significant difference between the responses of native and non-native teachers to scale 4 (*Advantages due to experience learning other languages*) but not to scales 6 (*Understanding the language learning process*) or 7 (*Experience learning and using foreign languages*), as initially

hypothesised. This suggests that native teachers of the L3 are actually more aware than non-native teachers of how students' prior experience learning other languages may constitute an advantage when learning the L3. However, both groups of teachers consider equally important both the role of their own experience of learning languages to better understand the L3 learning process (scale 6), and the importance of teachers' experience learning and using foreign languages as part of L3 teacher education (scale 7).

The results to these three scales contradict to a certain extent all expectations set by the subquestion above regarding teachers' responses. First of all, the data showed indeed a significant difference in the responses to scale 4 (*Advantages due to experience learning other languages*), but the pattern observed is contrary to the one expected from the review of the literature. According to works in SLA about the native/non-native teacher (Medgyes, 1983, 1992, 1994; Widdowson, 2003), non-native teachers should have agreed more strongly with this scale. These works argue that non-native teachers, who have by definition gone through the process of learning the target language as a foreign language, are more aware of the language learning process that their students are going through. In the case of L3 learning, this would involve also understanding how their students' experience learning other languages is helping them and facilitating the learning of the L3.

However, the results presented here offer the opposite picture, with native speakers of the L3 appearing to be significantly more aware of how students' prior language learning experience may be helping them learn the L3. Furthermore, the literature (Medgyes, 1983, 1992, 1994; Widdowson, 2003) suggests that non-native teachers would have also agreed more strongly with scales 6 (*Understanding the language learning process*) and 7 (*Experience learning and using foreign languages*) regarding the importance of teachers' own experience learning languages to understand the L3 language learning process and as part of teacher training programmes. The results in this study show that teachers' nativeness

in the L3 does not seem to determine their awareness about the importance of teachers' experience learning and using languages.

These results support the argument in 3.2.4 above claiming that nativeness in the L3 may not be such an important element when discussing L3 teachers' profile. Instead, there may be other elements playing a much more important role, such as knowledge of and experience learning and using languages. While in SLA nativeness is associated with monolingualism (Medgyes, 1983, 1992, 1994; Widdowson, 2003), in this study 99% of the participants reported having learnt at least two foreign languages. The following sections (6.3.3.2 to 6.3.3.2) will explore further whether teachers' knowledge of other languages may be determining the way they answer to the different scales.

6.3.3.2 Teachers' level in the students' L1 (when students share a common L1)

In 6.3.1.1 above the discussion focused on how students sharing a common L1 may be associated with their teachers holding specific beliefs about the measured concepts in multilingualism. This section aims to explore how teachers' beliefs about these concepts may also be associated with their own self-reported proficiency in the students' L1 in instances where most of the students share the same L1.

When participants were asked whether most of their students shared a common L1, 207 participants replied that this was not the case. However, when participants were asked to self-report their level of proficiency in their students' L1, only 200 participants left this question blank. This means that there were 7 participants who first recognised that most of their students did not share their L1, but still provided information about their level in this L1. This may mean that some of their students had a common L1, although this language was not shared by the majority of the students.

Teachers were asked to self-report their level of proficiency in their students L1 according to the six levels in the CEFR scale, which assumes equal distances between the

levels. Table 25 shows the descriptive results for the whole sample and for each language subsample. As it can be observed, the proportion of teachers whose students do not share an L1 is similar across the three language subsamples. A very small percentage of teachers recognised not having any knowledge of their students' L1 (n=12, 1.2%). On the opposite extreme, the highest percentage of teachers reported being native speakers of their students' L1 (n=398, 40.4%), which means that the L1 is not only shared among most of the students in the L3 classroom, but also shared with the L3 teacher.

Table 25

Teachers' level in students' L1 (when students share an L1) for the whole sample and for each language subsample

Level in the students' L1	Whole sample (N=984)		Spanish (n=290)		French (n=381)		German (n=313)	
Students do not share L1	200	(20.3%)	52	(17.9%)	92	(24.1%)	56	(17.9%)
None	12	(1.2%)	7	(2.4%)	4	(1.0%)	1	(0.3%)
A1	18	(1.8%)	7	(2.4%)	5	(1.3%)	6	(1.9%)
A2	29	(2.9%)	10	(3.4%)	9	(2.4%)	10	(3.2%)
B1	28	(2.8%)	8	(2.8%)	10	(2.6%)	10	(3.2%)
B2	67	(6.8%)	18	(6.2%)	19	(5.0%)	30	(9.6%)
C1	86	(8.7%)	35	(12.1%)	18	(4.7%)	33	(10.5%)
C2	146	(14.8%)	54	(18.6%)	43	(11.3%)	49	(15.7%)
Native	398	(40.4%)	99	(34.1%)	181	(47.5%)	118	(37.7%)

Regarding the remaining answers, it is possible to observe that the number of teachers reporting each CEFR level increases the higher the CEFR level. Most of the teachers claim to have a B2 or higher level in the students' L1 (30.3%), with only a small percentage of teachers reporting levels below B2 (7.5%). The largest proportion of teachers report a C2 level of proficiency in their students' L1 (14.8%). These results suggest that most of the teachers who are not native speakers of their students' L1 have an advanced level of this

language, with the majority of them reporting at least a higher intermediate level (B2 and above). This also means that L3 teachers will have enough understanding and knowledge of the students' L1 to potentially incorporate it into their teaching.

Beyond a mere description of teachers' proficiency in their students' L1, this section aims to use the data collected to explore the following two subquestions:

Do teachers who are native speakers of the students' L1 answer differently to any of the scales?

Excluding teachers who are native speakers of their students' L1, is teachers' higher level in the students' L1 associated with more positive answers to any of the scales?

In order to the first subquestion, independent samples t-test was conducted on the data based on whether teachers are native or non-native speakers of the students' L1. As Table 26 shows, there seems to exist a significant difference between the responses of teachers in these two groups for scales 1 (*To facilitate the L3 learning process*) and 2 (*To help students become effective multilingual communicators*) regarding the use of other languages in the L3 classroom, and for scales 5 (*Promoting crosslinguistic connections*) and 6 (*Understanding the language learning process*) regarding the role of teachers' own experience learning foreign languages in their teaching.

Table 26

Independent samples t-test for all the scales between teachers who are native and non-native speakers of the students' L1

Scale	Label	Groups	Mean	Standard Deviation	t	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. Non-native of students' L1	3.53	1.04	-6.309	**<.001**	1 < 2
		2. Native of students' L1	3.97	.88			
2	To help students become effective multilingual communicators	1. Non-native of students' L1	2.95	1.16	-6.353	**<.001**	1 < 2
		2. Native of students' L1	3.47	1.14			

3	Advantages due to knowledge of other languages	1. Non-native of students' L1	3.39	.69	-1.428	.154	--
		2. Native of students' L1	3.46	.70			
4	Advantages due to experience learning other languages	1. Non-native of students' L1	3.47	.82	.929	.353	--
		2. Native of students' L1	3.42	.85			
5	Promoting crosslinguistic connections	1. Non-native of students' L1	4.13	.84	-3.243	**.001**	1 < 2
		2. Native of students' L1	4.31	.72			
6	Understanding the language learning process	1. Non-native of students' L1	4.13	.69	-2.602	**.009**	1 < 2
		2. Native of students' L1	4.25	.65			
7	Experience learning and using foreign languages	1. Non-native of students' L1	4.10	.77	-1.730	.084	--
		2. Native of students' L1	4.19	.73			
8	Knowledge of and about foreign languages	1. Non-native of students' L1	3.70	.78	-1.568	.117	--
		2. Native of students' L1	3.78	.74			
9	Training in SLA	1. Non-native of students' L1	3.82	.82	.052	.959	--
		2. Native of students' L1	3.82	.84			
10	Training in TLA	1. Non-native of students' L1	3.30	.99	1.112	.267	--
		2. Native of students' L1	3.22	1.03			

Notes. n=784; * Differences are significant at the 0.05 level (2-tailed).
(1) teachers who are non-native speakers of their students' L1, n=386;
(2) teachers who are native speakers of their students' L1, n=398.

Teachers who are native speakers of the students' L1 agree more strongly than non-native speakers on the usefulness of incorporating students' other languages into the L3 learning process both to enhance and speed up the L3 learning process (scale 1), and to help their students become better multilingual communicators (scale 2). However, these results could also suggest that, although the instructions referred to the use of all the other languages

that students know when they start learning the L3, teachers may have answered to these two scales thinking about the main language that they share with their students and in which both of them have the highest level of proficiency, that is, their common L1.

The higher the teacher's and students' level in the common languages, the easier and more useful it would logically be to use this common knowledge to draw meaningful similarities across the language systems, and therefore to facilitate L3 learning. Similarly, teachers may see the usefulness of incorporating the students' L1 to help them communicate not only in the L3 but also across their other languages, particularly in situations where the L3 and the students' L1 may encounter each other. In conclusion, teachers who are native speakers of their students' L1 may be more aware of how using their common L1 can be helpful to learn the L3 faster and more efficiently, which they will have experienced themselves when learning the L3 as a foreign language (whether it was learnt as an L3 or as an L2). These teachers may also pay more attention to developing students' multilingual communication skills in the measure that they have found these skills necessary for themselves when communicating in multilingual settings.

Teachers' responses to scales 5 (*Promoting crosslinguistic connections*) and 6 (*Understanding the language learning process*) also support these results. Teachers who share a common L1 with their students have answered more positively to scales 5 and 6, which both concern the role of teachers' own language learning experience when teaching the L3. Teachers who are native speakers of their students' L1 have a better awareness of how their own experience learning languages may help them promote crosslinguistic connections across the students' languages, and to understand the language learning process that their students are going through. These teachers will have most probably learnt the target language as a foreign language, which will let them relate more to the learning process that their students are going through.

These results need to be considered with caution. Despite the clear instructions in the questionnaire, it is difficult to determine to what extent teachers were answering to these four scales referring just to the students' L1, or whether they were actively incorporating students' other languages as well. It would be necessary to collect further qualitative data to confirm these findings, and to explore other questions such as the extent to which teachers who are native and non-native speakers of the students L1 use the native language or other common languages in the L3 classroom, or whether teachers who share an L1 with their students have learnt the target language as an L3 or rather as an L2, and how these differences may influence L3 teachers' beliefs about the measured concepts.

The second subquestion regards only teachers who are non-native speakers of the students' L1 (n=386). The aim is to check whether there exist any correlations between these teachers' level in the students' L1 and their answers to the different scales. Teachers' were asked to estimate their level of proficiency in their students L1 according to the six levels in the CEFR scale, which assumes equal distances between the levels. Each CEFR level was assigned an increasing value according to the increasing level of proficiency – A1 turned *1*, A2 turned *2*, B1 turned *3*, and so forth.

As it can be observed in Table 27, there seems to exist a significant but weak positive correlation between non-native teachers' level in the students' L1 and responses to scales 4 (*Advantages due to experience learning other languages*), 5 (*Promoting crosslinguistic connections*), 7 (*Experience learning and using foreign languages*) and 8 (*Knowledge of and about foreign languages*). The higher the teachers' level in the students' L1, the more aware they seem to be of how L3 learners are advantaged in comparison with their monolingual counterparts due to their experience learning other languages (scale 4). Regarding scale 5, teachers who have a higher level in the students' L1 seem also more aware of how their own experience learning languages may help them encourage crosslinguistic connections among

their students throughout the learning of the L3. This could suggest that the higher the teachers' level in this common language with the students, the more they will be able to draw meaningful similarities and point at important differences between the L3 and the students' L1. However, the data in this study does not allow to confirm this supposition, or to establish whether these crosslinguistic connections will be encouraged only between the students' L1 and the L3, or rather among all the languages students may know.

Table 27

Correlations between teachers' level in students' L1 (when not shared with their students) and teachers' responses to each of the scales

Scale	1	2	3	4	5
Label	To facilitate the L3 learning process	To help students become effective multilingual communicators	Advantages due to knowledge of other languages	Advantages due to experience learning other languages	Promoting crosslinguistic connections
Correlation	.09	.08	-.02	.10	.13
Sig.	.08	.11	.76	**.04**	**.01**
Scale	6	7	8	9	10
Label	Understanding the language learning process	Experience learning and using foreign languages	Knowledge of and about foreign languages	Training in SLA	Training in TLA
Correlation	.08	.18	.19	.04	.09
Sig.	.12	**<.001**	**<.001**	.38	.07

Notes. n=386. Correlation is significant at the 0.05 level (2-tailed). Scales are measured on a five-point Likert scale. Language proficiency was estimated using the six levels of the CEFR.

Scales 7 (*Experience learning and using foreign languages*) and 8 (*Knowledge of and about foreign languages*) both concern elements which L3 teachers consider important in their training. Results show that, the higher the teachers' level in the students' L1, the more important they consider teachers' knowledge of other languages, as well as teachers' experience learning and using foreign languages. A possible explanation for this positive

correlation is that, the higher the teachers' level in the students' L1, the more aware they are of how their knowledge of this language and the process of learning and using it contributes to enhancing their L3 teaching skills, and the stronger they believe that these two elements should be included as part of the training of every L3 teacher.

Again, this leads to wonder whether teachers have answered these two scales considering the whole range of languages they know, or whether teachers were answering these questions thinking primarily of their knowledge and experience with students' L1. However, both scales 7 and 8 included items referring specifically to the importance of teachers' knowledge of other languages different from the students' L1. Therefore, the results could suggest that the higher the teachers' level in the students' L1, the more they agree with the importance of having knowledge of and about a variety of other languages, and experience learning and using these languages.

6.3.3.3 Number of foreign languages that teachers have learnt

Considering the importance of teachers' own experience learning foreign languages (Bailey et al., 1996; Ellis, 2002, 2004, 2006, 2012, 2013; Jessner, 2008; Lortie, 1975; Lowe, 1987), as opposed to teachers who may be multilingual because of growing up with more than one mother tongue, the questionnaire purposely collected data separately regarding the languages which were acquired as L1s during childhood, and those which were learnt later on in life. This section will explore the number of languages that teachers have learnt and how this variable may be associated with the way in which participants answer to some of the scales.

Participants were asked to report their mother tongue(s) separately from the languages they had learnt throughout their lives, including the target language if this was learnt as a foreign language. According to the data collected, teachers have learnt in average 3.85

languages each (SD=1.67), which confirms that L3 teachers have personal experience learning foreign languages. As

Table 28 shows, just under half of the teachers (47.6%) have learnt between two and three languages, with a very small number of participants having learnt only one foreign language (1.4%). The remaining 51% of the participants have learnt four or more foreign languages, with the percentages decreasing as the number of languages increase. Over half of the participants (55.1%) have learnt three or four languages, and this percentage goes up to 85.8% when the range is extended to teachers having learnt between two and five languages.

Table 28

Descriptive statistics of the number of languages that teachers have learnt.

Number of languages learnt	Frequency	Percent	Cumulative Percent
1	14	1.4	1.4
2	162	16.5	17.9
3	306	31.1	49
4	236	24	73
5	140	14.2	87.2
6	66	6.7	93.9
7	30	3	97
8	15	1.5	98.5
9	3	0.3	98.8
10	7	0.7	99.5
more than 10	5	0.5	100

These findings are very positive as they confirm that, regardless of the requirements of language teacher education programmes, the vast majority of L3 teachers have not just learnt the target language (in case this was not their mother tongue) but they have also engaged throughout their lives in the process of learning several foreign languages. Some of these languages will have been learnt, by definition, as L3s. This is particularly important as

it means that L3 teachers have been L3 learners themselves, and as a result will be more aware of how this process may differ from L2 learning, being consequently better able to address the challenges their students may face throughout their learning process.

On the basis of the discussion in 3.2.4.3 above, the main subquestion that will be explored is:

Do teachers who have learnt more languages agree more strongly with scales 1, 2, 3, 4, 5, 6, 7, 8 and 10?

Table 29 shows the significant differences in teachers' responses to each of the scales based on the number of languages that they have learnt. For clarity purposes, the number of languages have been clustered in four groups. The first group includes participants who only know one foreign language since these would be bilingual teachers, not multilingual. The second group ranges from two to four languages, with most of the participants in the sample belonging to this group (n=704). The third group includes teachers who have learnt between five and seven languages, which already constitutes an elevated number of languages. Finally, the fourth group is constituted by participants who have learnt more than eight languages, which is considered as a very high number of languages. Table 29 also shows the exact distribution of teachers across these four groups.

Table 29

One-way ANOVA test for all the scales depending on the number of languages that teachers have learnt besides the L3 and their mother tongue(s)

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. 1 language	2.61	.99	6.016	**<.001**	1 < 2, 3 < 4
		2. 2-4 languages	3.65	1.04			
		3. 5-7 languages	3.71	.98			
		4. 8+ languages	3.97	.95			
2	To help students become effective multilingual	1. 1 language	2.03	.71	5.674	**.001**	1 < 2, 4 < 3
		2. 2-4 languages	3.19	1.20			
		3. 5-7 languages	2.98	1.18			

	communicators	4. 8+ languages	3.19	1.35			
3	Advantages due to knowledge of other languages	1. 1 language	3.32	.91	.591	.621	
		2. 2-4 languages	3.41	.70			
		3. 5-7 languages	3.35	.70			
		4. 8+ languages	3.42	.69			
4	Advantages due to experience learning other languages	1. 1 language	3.05	.87	2.212	.085	
		2. 2-4 languages	3.45	.84			
		3. 5-7 languages	3.38	.80			
		4. 8+ languages	3.21	.75			
5	Promoting crosslinguistic connections	1. 1 language	3.60	1.20	7.408	**<.001**	1 < 2, 3 <4
		2. 2-4 languages	4.14	.81			
		3. 5-7 languages	4.24	.76			
		4. 8+ languages	4.68	.42			
6	Understanding the language learning process	1. 1 language	4.13	1.04	.502	.681	
		2. 2-4 languages	4.17	.68			
		3. 5-7 languages	4.19	.64			
		4. 8+ languages	4.31	.45			
7	Experience learning and using foreign languages	1. 1 language	3.52	1.33	4.780	**.003**	1 < 2, 3 < 4
		2. 2-4 languages	4.11	.76			
		3. 5-7 languages	4.19	.68			
		4. 8+ languages	4.36	.60			
8	Knowledge of foreign languages	1. 1 language	3.27	1.24	4.795	**.003**	1 < 2, 3 < 4
		2. 2-4 languages	3.66	.78			
		3. 5-7 languages	3.72	.76			
		4. 8+ languages	4.11	.56			
9	Training in SLA	1. 1 language	3.81	.88	1.455	.225	
		2. 2-4 languages	3.83	.83			
		3. 5-7 languages	3.70	.86			
		4. 8+ languages	3.71	.90			
10	Training in TLA	1. 1 language	3.14	1.13	.664	.574	
		2. 2-4 languages	3.23	.98			
		3. 5-7 languages	3.17	1.02			
		4. 8+ languages	3.43	1.15			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers who have learnt only 1 language, n=14;

(2) teachers who have learnt 2-4 languages, n=704;

(3) teachers who have learnt 5-7 languages, n=236;

(4) teachers who have learnt more than 8 languages, n=30.

As it can be observed, the differences are significant only for scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 5 (*Promoting crosslinguistic connections*), 7 (*Experience learning and using foreign languages*) and 8 (*Knowledge of and about foreign languages*). This means that the more languages teachers have learnt throughout their lives, the more strongly they have agreed with these scales. Surprisingly, the number of languages teachers have learnt does not seem to be associated with significantly higher responses to scales 3 (*Advantages due to knowledge of other languages*), 4 (*Advantages due to experience learning other languages*), 6 (*Understanding the language learning process*) or 10 (*Training in TLA*), as hypothesised above.

The results for scale 1 (*To facilitate the L3 learning process*) and 2 (*To help students become effective multilingual communicators*) suggest that the more languages teachers have learnt, the more they agree with the usefulness of students' other languages in the classroom to facilitate L3 learning and to help students communicate better in multilingual contexts. While results for scale 1 show that teachers' awareness increases with the number of languages, responses to scale 2 follow a different pattern. Teachers who have learnt between 5 and 7 languages endorse scale 2 more strongly than teachers who have learnt 2-4 languages and more than eight languages. Regardless of the reasons underlying this peculiar pattern of responses for scale 2, the key finding is that teachers' awareness of both scales seems to increase significantly after they learn a second foreign language, which will be the L3 for all participants who have not grown up as bilinguals or multilinguals.

The number of languages that teachers have learnt is not associated with either their perception of the L3 learner nor their awareness of the specific characteristics of L3 learning, as demonstrated by the lack of significant differences in scales 3 (*Advantages due to*

knowledge of other languages) and 4 (*Advantages due to experience learning other languages*). This may be due to the fact that, as shown in

Table 28 above, the majority of the participants in this study have learnt at least two foreign languages, and have therefore engaged in a smaller or greater measure in the process of L3 learning. Consequently, the type of qualitative differences between L2 and L3 learning that these two scales aimed to measure will have been experienced first-hand by most teachers, hence the overall agreement with these two scales.

There also exist significant differences in teachers' responses to scale 5 (*Promoting crosslinguistic connections*) based on the number of languages that they have learnt, although such differences do not exist in scale 6 (*Understanding the language learning process*). The more languages teachers have learnt, the more they consider their language learning experience useful to promote crosslinguistic connections between the students' different linguistic systems (scale 5). However, this pattern is not observed in teachers' responses to scale 6 regarding the importance they give to their own language learning experience to better understand the language learning process that their students are going through. These results suggest that even teachers with limited language learning experience are aware of how their own experience learning and using languages is important to better sympathise with the process their students are going through, regardless of the number of languages that they have learnt.

Regarding the last four scales, which regard the elements that participants consider important in the training of L3 teachers, it is possible to observe significant differences based on the number of languages that teachers have learnt for scales 7 (*Experience learning and using foreign languages*) and 8 (*Knowledge of and about foreign languages*), but not for scale 10 (*Training in TLA*), as initially hypothesised. In the case of scales 7 and 8, it seems that the more languages teachers have learnt the more important they consider both having

experience learning and using foreign languages, and the knowledge of and about foreign languages. These results suggest that teachers who have learnt more languages are more aware of how these two elements contribute towards enhancing their teaching, and therefore consider these elements as more important in L3 teacher training.

In regard to scale 10, the expectation set by the subquestion above was that the more languages teachers had learnt, the more they would realise how learning and teaching an L3 differs from an L2, and therefore the more they would acknowledge the importance of specialised training in TLA as part of L3 teacher education programmes. However, the absence of significant differences in this scale suggests that the number of languages that teachers have learnt is not associated with the importance that participants attach to this element in L3 teacher training. This may partly be due to the lack of widespread knowledge among language teachers about the existence of TLA as a field, and the ways in which findings in TLA could empower them to become more effective L3 teachers.

Interestingly, for all the scales which show a significant difference, there seems to be a large gap between the beliefs of teachers who have only learnt one foreign language, and those of teachers who have learnt two or more. This suggests the existence of a threshold level beyond which teachers' beliefs about the usefulness of incorporating other languages to the L3 learning process and the importance of teachers' own knowledge and experience learning languages do not increase significantly. This threshold appears to be in the second learnt language, and suggests that teachers' awareness of these four scales develops when they engage themselves in the process of learning their second foreign language, which in most cases will be their L3 (with the exception of teachers who have grown up as bilinguals/multilinguals, see 6.3.3.4 below).

These findings support Rokeach's (1968) distinction between derived and underived beliefs, that is, between beliefs transmitted by others and beliefs established through lived

experiences. According to Rokeach, beliefs developed through one's own experience are stronger than beliefs passed on by others. This could explain why teachers' beliefs about the usefulness of other languages in L3 learning and the importance of teachers' knowledge and experience learning languages increases significantly when they engage themselves in the process of learning an L3. On the basis of these findings, L3 teacher training and recruitment programmes should require trainees to learn an L3 as a pre-requisite to become L3 teachers. This experience would expectedly lead to beliefs about L3 learning and teaching processes which are more accurate, and may therefore encourage a more efficient L3 teaching approach in line with current recommendations for the teaching of L3s (e.g., Neuner, 2004, see 3.2.3.1 above).

6.3.3.4 Number of languages that teachers have grown up with

This section aims to find out whether teachers who have grown up as bilingual/multilingual children endorse certain scales differently from those who have not. Teachers whose multilingualism is due to growing up with several languages will have acquired these languages in a naturalistic setting. Therefore, their experience of the language learning process will be different from that of teachers who became multilingual by learning languages in an instructional setting. Results in this section will help elucidate whether this different is also reflected in teachers' beliefs about multilingualism.

The questionnaire asked, in a separate question, whether teachers had grown up with one or several mother tongues. As observed in Table 30, 82% of the participants grew up as monolinguals with only one mother tongue. The remaining 18% of the teachers were constituted mainly by participants who grew up as bilinguals with two mother tongues, with a residual percentage (1%) of teachers who recognise growing up as true multilinguals with three or more mother tongues. As it is also possible to observe in Table 30, the proportions of teachers across the three language subsamples is very even, with very similar percentages to

those reported for the whole sample. This suggests that the results described below apply to the whole sample equally regardless of the language subsample participants belong to.

Table 30

Number of teachers who have grown up with one, two and three mother tongues for the whole sample and for each language subsample

Number of mother tongues	Whole sample (N=984)		Spanish (n=290)		French (n=381)		German (n=313)	
1 (monolingual)	807	(82.0%)	233	(80.3%)	323	(84.8%)	251	(80.2%)
2 (bilingual)	167	(17.0%)	54	(18.6%)	55	(14.4%)	58	(18.5%)
3 or more (multilingual)	10	(1.0%)	3	(1.0%)	3	(0.8%)	4	(1.3%)

On the basis of the aim set out at the beginning of this section, the following subquestion was suggested to guide the exploration of the data:

Do teachers answer differently to any of the scales, and particularly to scales 1, 2, 3, 4, 5, 6, 7, 8 and 10, depending on the number of languages that they have grown up with?

In order to explore this subquestion, group-related statistical analyses (one-way ANOVA) were conducted for the three groups of teachers depending on the number of mother tongues they have grown up with. As Table 31 shows, there does not exist any significant difference between the responses of these three groups of teachers to any of the scales. Although the mean value for scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 8 (*Knowledge of and about foreign languages*), 9 (*Training in SLA*) and 10 (*Training in TLA*) seems to be higher the more mother tongues the teachers have grown up with, these differences are not significant. These results suggest that L3 teachers' beliefs about multilingualism do not vary significantly based on whether teachers have grown up as monolinguals with only one mother tongue, or as bilinguals/multilinguals with several mother tongues.

Table 31

One-way ANOVA test for all the scales depending on the number of languages that teachers have grown up with

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.
1	To facilitate the L3 learning process	1 mother tongue	3.63	1.05	1.460	.23
		2 mother tongues	3.76	.96		
		3 mother tongues	3.98	.94		
2	To help students become effective multilingual communicators	1 mother tongue	3.11	1.21	1.486	.23
		2 mother tongues	3.16	1.15		
		3 mother tongues	3.74	1.18		
3	Advantages due to knowledge of other languages	1 mother tongue	3.39	.71	.494	.61
		2 mother tongues	3.45	.70		
		3 mother tongues	3.43	.64		
4	Advantages due to experience learning other languages	1 mother tongue	3.41	.83	.872	.42
		2 mother tongues	3.50	.84		
		3 mother tongues	3.43	.58		
5	Promoting crosslinguistic connections	1 mother tongue	4.15	.82	2.152	.12
		2 mother tongues	4.29	.69		
		3 mother tongues	4.13	.79		
6	Understanding the language learning process	1 mother tongue	4.17	.69	.699	.50
		2 mother tongues	4.23	.61		
		3 mother tongues	4.12	.64		
7	Experience learning and using foreign languages	1 mother tongue	4.13	.73	.032	.97
		2 mother tongues	4.12	.82		
		3 mother tongues	4.08	.71		
8	Knowledge of and about foreign languages	1 mother tongue	3.67	.78	.900	.41
		2 mother tongues	3.75	.78		
		3 mother tongues	3.80	.77		
9	Training in SLA	1 mother tongue	3.77	.83	1.403	.25
		2 mother tongues	3.88	.85		
		3 mother tongues	3.95	1.09		
10	Training in TLA	1 mother tongue	3.21	.98	.988	.37
		2 mother tongues	3.28	1.06		
		3 mother tongues	3.58	1.11		

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers who have grown up with one mother tongue, n=807;

(2) teachers who have grown up with two mother tongues, n=167;

(3) teachers who have grown up with three or more mother tongues, n=10.

6.3.3.5 Teachers' individual multilingualism (IM)

Following the results from the two previous sections, this section aims to establish whether teachers answer more positively to the different scales depending on how multilingual they are. For this purpose, teachers were not only asked about the number of languages known, but also about the estimated level in each of these languages, according to the six language proficiency levels in the Common European Framework of Reference (CEFR). These two sources of information were combined to compute a new variable referred to as teachers' individual multilingualism (IM).

Table 32 provides detailed information about the total number of languages known by participants in this sample. This includes both languages that teachers have grown up with and languages learnt later on in life. The distribution is very similar to that described in 6.3.3.2 above: just over half of the teachers (55.1%) know between 4 and 5 languages, with the vast majority of the participants (84%) knowing between 3 and 6 languages in total. The rest of the participants know 7 or more languages (15%), with only 1% of the teachers knowing 2 languages including their mother tongue.

Table 32

Descriptive statistics of the total number of languages that teachers know

Total number of languages	Frequency	Percent	Cumulative Percent
2	10	1	1
3	126	12.8	13.8
4	288	29.3	43.1
5	254	25.8	68.9
6	158	16.1	85
7	77	7.8	92.8
8	35	3.6	96.3
9	19	1.9	98.3
10	5	0.5	98.8
More than 10	12	1.2	100

The information regarding the total number of languages was combined with teachers' level in each of these languages to determine teachers' level of individual multilingualism (IM). Teachers' IM was calculated by assigning an increasing number to each CEFR level – A1 turned *1*, A2 turned *2*, and so forth – and assigning the value *7* for each mother tongue. By adding up the levels in each of the languages it was possible to compute a value for each teacher which reflected both the number of languages that they know and the level that they estimate having in each of these languages. Table 33 provides an overview of the level of IM for teachers in this sample. For clarity purposes the participants were divided into three groups depending on their IM. The cut off scores for these three levels were partly calculated thanks to the standard deviation of the mean value for the whole sample, and by spot checking individual cases against this criterion to determine whether the three established levels provided a real indication of how multilingual participants are.

Table 33

Frequency and percentage of participants according to their level of individual multilingualism (IM)

	Frequency	Percent
1. Low IM (< 14)	58	5.9
2. Medium IM (15 – 25)	681	69.2
3. High IM (26 <)	245	24.9

Note. N=984.

The first group includes teachers with an IM equal or lower than 14, and could be considered as low IM. These participants could have achieved their score by knowing the mother tongue, and just either another two languages at low levels of proficiency, or one language at a high level of proficiency and some basic knowledge of a second language. Teachers with an IM between 15 and 25 could be considered as having a medium IM, since they will have necessarily knowledge of at least three languages. For example, they could

have two mother tongues and very basic knowledge of an L3, or just a mother tongue and different levels of proficiency in several other languages. Teachers with an IM of 26 or higher were considered as highly multilingual. In order to be in this group, teachers will necessarily have knowledge of at least three languages at high levels of proficiency and some knowledge of an additional language, or varying levels of proficiency in a high number of languages.

As it can be observed in Table 33, a considerable percentage of the teachers had a medium level of IM (69.2%). Almost one fourth of the participants were in the group *high* (24.9%), and the remaining 5.9% of the teachers were considered to have a low level of IM. These results are very promising for L3 teaching as they demonstrate that L3 teachers tend to be quite multilingual themselves, not only based on the number of languages that they know but also on the level that they estimate having in each of these languages. As discussed in 3.2.4 above, being multilingual and having learnt foreign languages is one of the requirements that ideal L3 teachers should meet (Jessner, 2008), and these findings suggest that most L3 teachers do already fulfil this requirement.

However, it is important to note here that the levels in each language were self-reported and should only be considered as subjective approximations and not as absolute values. Furthermore, the fact that the sample was self-selected and teachers had the option to choose whether to take part or not in the study means that participants may have a prior interest in multilingualism, and by extension perhaps be more multilingual themselves. For this reason, these descriptive results should not be considered as fully representative of the whole population of L3 teachers in Europe.

On the basis of the results in the two previous sections and the claims made regarding the advantages of the L3 multilingual teacher (see 3.2.4.3 above), the aim of this section is to explore the following subquestion:

Do teachers answer more positively to any of the scales, and particularly to scales 1, 2, 3, 4, 5, 6, 7, 8 and 10, the higher their level of IM?

An analysis of variance (one-way ANOVA) was conducted to identify any differences between teachers' answers on the basis of their level of IM. As observed in Table 34, there are significant differences between teachers' level of IM and how strongly they agree with scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 5 (*Promoting crosslinguistic connections*), 6 (*Understanding the language learning process*), 7 (*Experience learning and using foreign languages*), 8 (*Knowledge of and about foreign languages*) and 10 (*Training in TLA*). This means that teachers did indeed answer differently to these scales depending on their level of IM, but they did not, however, do so to scales 3 (*Advantages due to knowledge of other languages*) and 4 (*Advantages due to experience learning other languages*). As Table 34 shows, teachers with high IM have agreed more strongly with all the scales for which there is a significant group-based difference.

Table 34

One-way ANOVA test for all the scales depending on teachers' level of individual multilingualism

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. low	2.62	1.07	39.767	**<.001**	1 < 2 < 3
		2. medium	3.66	1.02			
		3. high	3.91	.89			
2	To help students become effective multilingual communicators	1. low	2.28	1.03	15.630	**<.001**	1 < 2, 3
		2. medium	3.16	1.20			
		3. high	3.22	1.18			
3	Advantages due to knowledge of other languages	1. low	3.21	.82	2.128	.120	--
		2. medium	3.41	.70			
		3. high	3.41	.68			
4	Advantages due to experience learning other languages	1. low	3.37	.92	.366	.694	--
		2. medium	3.41	.83			
		3. high	3.46	.80			

5	Promoting crosslinguistic connections	1. low	3.71	1.00	25.488	**<.001**	1 < 2 < 3
		2. medium	4.12	.81			
		3. high	4.44	.65			
6	Understanding the language learning process	1. low	4.03	.83	7.702	**<.001**	1, 2 < 3
		2. medium	4.14	.69			
		3. high	4.31	.56			
7	Experience learning and using foreign languages	1. low	3.69	.93	15.134	**<.001**	1 < 2, 3
		2. medium	4.11	.74			
		3. high	4.27	.69			
8	Knowledge of foreign languages	1. low	3.10	.93	25.286	**<.001**	1 < 2 < 3
		2. medium	3.66	.74			
		3. high	3.88	.78			
9	Training in SLA	1. low	3.61	.91	1.614	.200	--
		2. medium	3.79	.82			
		3. high	3.83	.87			
10	Training in TLA	1. low	2.93	1.03	3.746	**.024**	1 < 2, 3
		2. medium	3.21	.97			
		3. high	3.32	1.06			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers with low IM, n=58;

(2) teachers with medium IM, n=681;

(3) teachers with high IM, n=245.

Regarding scales 1 and 5, more multilingual teachers have answered significantly more positively to these scales than teachers with a medium level of IM, who have in turn endorsed these scales significantly more than teachers with a low level of IM. These results seem logical as they suggest that teachers with a higher level of IM agree more with the use of other languages in the L3 classroom to facilitate L3 learning, and see their experience learning foreign languages as useful to promote crosslinguistic connections between students' different languages. This could be due to the fact that teachers with a higher level of IM are familiar with a relatively elevated number of linguistic systems and have an acceptable level of proficiency in most of them. Thanks to their larger linguistic knowledge, they will possess a broader range of tools to draw from when encouraging students to make crosslinguistic connections between their languages.

In the case of scale 2 (*To help students become effective multilingual communicators*), teachers with a low level of IM have agreed significantly less with the importance of using other foreign languages in the classroom to help their students become multilingual communicators than teachers with a medium or high level of IM. Similarly, teachers with low and medium levels of IM also endorse scale 6 (*Understanding the language learning process*) significantly less than teachers with a high level of IM, which suggests that teachers with lower levels of IM consider their experience learning foreign languages less important to understand the language learning process than their more multilingual counterparts. These results suggest the existence of a certain threshold of IM beyond which teachers start realising the importance of these two elements in the L3 learning and teaching processes. Therefore, it would seem desirable that L3 teachers are not only multilinguals, as TLA researchers suggest (Jessner, 2008), but also that they reach the minimum level of IM beyond which they can start appreciating the importance of these two key elements in L3 learning and teaching. Further research would have to be conducted to determine what this threshold level of IM is.

Teachers' higher level of IM does not seem to be associated with a higher awareness of how the L3 learning process may vary from L2 learning (scales 3 and 4). The reasons underlying this lack of significant differences may include the fact that, to a greater or lesser extent, the vast majority of teachers in this study could be considered as multilinguals who know at least three languages (99% of the participants according to Table 32 above). This means that most of the participants will have engaged to a certain extent in L3 learning, although this may not have been for a long period of time and they may not have reached a high level of proficiency in all their languages. However, this experience learning and using languages may have been enough to make teachers become aware of how the process of learning an L3 differs from learning an L2, leading to the lack of significant differences

between teachers' IM and their answers to scales 3 (*Advantages due to knowledge of other languages*) and 4 (*Advantages due to experience learning other languages*) regarding L3 learning.

In respect of the elements that teachers consider most important in their training to become L3 teachers, there exist group-based differences for scales 7 (*Experience learning and using foreign languages*), 8 (*Knowledge of and about foreign languages*) and 10 (*Training in TLA*), as predicted in the subquestion above. Results show that teachers with a low level of IM consider experience learning and using foreign languages (scale 7) significantly less important than teachers with a medium and high level of IM. Similarly, teachers with a low IM also believe that knowledge of foreign languages (scale 8) is significantly less important than teachers with a medium IM, who in this case also consider this element significantly less relevant than their most multilingual counterparts with a high IM level.

These results suggest that the importance of teachers' experience learning and using languages seems to be similarly obvious for the higher IM groups, which again leads to hypothesise the existence of a threshold level of IM beyond which the importance of this element becomes evident. However, in the case of knowledge of foreign languages such a threshold level is not so apparent, and it seems like teachers consider this element more important the higher their level of IM, that is, the more languages they know at a higher level of proficiency.

While there are no significant group-based differences in the importance that teachers give to training in SLA (scale 9), a significant difference can be observed in the importance they assign to training in TLA (scale 10). Following the same pattern as for scale 7 (*Experience learning and using foreign languages*), teachers with a medium and high level of IM agree significantly more on the importance of this element in L3 teacher training than

teachers with a low IM. This means that, while all teachers agree similarly with the importance of SLA training, regardless of their level of IM, the importance they give to training in TLA seems to be associated with their IM level. Again, these results suggest that a threshold level of IM could exist beyond which teachers would become significantly more aware of the importance of actively including modules on L3 learning and teaching as part of their preparation to become L3 teachers. Further research needs should be conducted to explore this hypothesis in more depth.

6.3.3.6 Teachers' qualifications

Teacher education has proved to be one of the main elements influencing teachers' beliefs about educational issues (Borg, 2005; Cabaroglu & Roberts, 2000; MacDonald, Badger & White, 2001; Peacock, 2001; Pennington & Urmston, 1998; Urmston, 2003). For this reason, detailed information was collected about the participants' qualifications in the target language (i.e., the L3), in other foreign languages (including translation and interpreting), in teaching the target language, in education or pedagogy (not specifically language-related) and in other. For each category, participants were asked to select the highest level of qualifications that they have.

A detailed overview of teachers' highest level of qualifications in each category for the whole sample and for each language subsample is provided in Table 35. As it can be observed, most teachers do not only hold qualifications in the target language and in how to teach the target language – a large proportion of the participants in this study (66.4%) also have qualifications which involve learning and/or knowing other foreign languages. However, a high percentage of these participants (26.4%) only reported the lowest level of qualifications, which cover short courses and certificates or diplomas below the bachelor degree level. The remaining percentage (40%) does claim to have qualifications at either

bachelor, master's or doctoral level, which suggests an advanced level of at least one other foreign language besides the target language.

Table 35

Teachers' qualifications in the L3, in other foreign languages, in teaching the L3, in education/pedagogy and in other, for the whole sample and for each language subsample

		Whole sample (N=984)		Spanish (n=290)		French (n=381)		German (n=313)	
Qualifications in the target language (e.g., philology)	Certificate/ Diploma/ course	111	(11.3%)	30	(10.3%)	38	(10.0%)	43	(13.7%)
	Bachelor's	237	(24.1%)	114	(39.3%)	84	(22.0%)	39	(12.5%)
	Master's	389	(39.5%)	85	(29.3%)	175	(45.9%)	129	(41.2%)
	PhD	106	(10.8%)	20	(6.9%)	33	(8.7%)	53	(16.9%)
	Total	843	(85.7%)	249	(85.9%)	330	(86.6%)	264	(84.3%)
	Missing	141	(14.3%)	41	(14.1%)	51	(13.4%)	49	(15.7%)
Qualifications in other foreign languages (e.g., modern languages, translation and interpreting)	Certificate/ Diploma/ course	260	(26.4%)	84	(29.0%)	96	(25.2%)	80	(25.6%)
	Bachelor's	167	(17.0%)	73	(25.2%)	71	(18.6%)	23	(7.3%)
	Master's	210	(21.3%)	42	(14.5%)	90	(23.6%)	78	(24.9%)
	PhD	16	(1.6%)	2	(0.7%)	6	(1.6%)	8	(2.6%)
	Total	653	(66.4%)	201	(69.3%)	263	(69.0%)	189	(60.4%)
	Missing	331	(33.6%)	89	(30.7%)	118	(31.0%)	124	(39.6%)
Qualifications in teaching the target language	Certificate/ Diploma/ course	198	(20.1%)	63	(21.7%)	59	(15.5%)	76	(24.3%)
	Bachelor's	148	(15.0%)	62	(21.4%)	56	(14.7%)	30	(9.6%)
	Master's	383	(38.9%)	98	(33.8%)	184	(48.3%)	101	(32.3%)
	PhD	27	(2.7%)	2	(0.7%)	13	(3.4%)	12	(3.8%)
	Total	756	(76.8%)	225	(77.6%)	312	(81.9%)	219	(70.0%)
	Missing	228	(23.2%)	65	(22.4%)	69	(18.1%)	94	(30.0%)
Qualifications in education/ pedagogy	Certificate/ Diploma/ course	198	(20.1%)	66	(22.8%)	66	(17.3%)	66	(21.1%)

	Bachelor's	147	(14.9%)	67	(23.1%)	52	(13.6%)	28	(8.9%)
	Master's	266	(27.0%)	65	(22.4%)	116	(30.4%)	85	(27.2%)
	PhD	19	(1.9%)	2	(0.7%)	9	(2.4%)	8	(2.6%)
	Total	630	(64.0%)	200	(69.0%)	243	(63.8%)	187	(59.7%)
	Missing	354	(36.0%)	90	(31.0%)	138	(36.2%)	126	(40.3%)
Qualifications in other	Certificate/ Diploma/ course	109	(11.1%)	28	(9.7%)	31	(8.1%)	50	(16.0%)
	Bachelor's	52	(5.3%)	26	(9.0%)	13	(3.4%)	13	(4.2%)
	Master's	108	(11.0%)	37	(12.8%)	40	(10.5%)	31	(9.9%)
	PhD	14	(1.4%)	2	(0.7%)	4	(1.0%)	8	(2.6%)
	Total	283	(28.8%)	93	(32.1%)	88	(23.1%)	102	(32.6%)
	Missing	701	(71.2%)	197	(67.9%)	293	(76.9%)	211	(67.4%)

On the basis of the information collected about teachers' qualifications, this section aims to explore the following three subquestions:

Do teachers with qualifications in other languages answer more positively to any of the scales?

Do teachers with higher qualifications in other languages answer more positively to any of the scales?

Do teachers with higher qualifications in education and/or L3 teaching answer more positively to any of the scales?

Table 36 shows the results of the independent samples t-test aimed at exploring the first subquestion. As it can be observed, teachers with qualifications in other languages have answered more positively to all the scales, although the differences between teachers' answers in these two groups are only significant for 6 of the 10 scales included in this study, namely scales 3 (*Advantages due to knowledge of other languages*), 4 (*Advantages due to experience learning other languages*), 5 (*Promoting crosslinguistic connections*), 6

(*Understanding the language learning process*), 7 (*Experience learning and using foreign languages*) and 10 (*Training in TLA*).

Table 36

Independent samples t-test for all the scales between teachers with and without any qualifications in other foreign languages besides the L3

Scale	Label	Groups	Mean	Standard Deviation	t	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. Without	3.60	1.02	-1.243	.214	--
		2. With	3.69	1.04			
2	To help students become effective multilingual communicators	1. Without	3.03	1.20	-1.714	.087	--
		2. With	3.17	1.21			
3	Advantages due to knowledge of other languages	1. Without	3.28	.73	-3.785	**<.001**	1 < 2
		2. With	3.46	.68			
4	Advantages due to experience learning other languages	1. Without	3.31	.80	-3.015	**.003**	1 < 2
		2. With	3.48	.84			
5	Promoting crosslinguistic connections	1. Without	4.10	.81	-2.102	**.036**	1 < 2
		2. With	4.21	.80			
6	Understanding the language learning process	1. Without	4.09	.68	-2.991	**.003**	1 < 2
		2. With	4.22	.67			
7	Experience learning and using foreign languages	1. Without	4.05	.70	-2.146	**.032**	1 < 2
		2. With	4.16	.77			
8	Knowledge of and about foreign languages	1. Without	3.62	.77	-1.915	.056	--
		2. With	3.72	.79			
9	Training in SLA	1. Without	3.73	.84	-1.743	.082	--
		2. With	3.82	.84			
10	Training in TLA	1. Without	3.14	1.02	-1.979	**.048**	1 < 2
		2. With	3.27	.99			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers without qualifications in other foreign languages besides the L3, n = 331;

(2) teachers with qualifications in other foreign languages besides the L3, n = 653.

The lack of significant differences in teachers' responses to scales 1 (*To facilitate the L3 learning process*) and 2 (*To help students become effective multilingual communicators*) suggests that teachers with qualifications in other languages do not consider that

incorporating other languages in the L3 classroom may be significantly more useful than teachers without these qualifications. Teachers with qualifications in other languages do, however, have a higher awareness of how L3 learners may have a series of cognitive and metacognitive advantages over their monolingual counterparts due to their knowledge of other languages (scale 3) and their prior experience learning other languages (scale 4). Similarly, teachers with qualifications in other languages believe that their own experience learning languages may play a more important role in their teaching than teachers without such qualifications, both to help them encourage crosslinguistic connections (scale 5) and to understand better the language learning process (scale 6).

Finally, regarding the importance of different elements in L3 teacher training courses, teachers with qualifications in other languages tend to think that prior experience learning and using languages (scale 7) is a more important element than teachers without such qualifications. However, this difference does not exist regarding the importance of knowing other languages (scale 8), or of specialised training in SLA (scale 9). In contrast, this difference comes out as significant for training in TLA (scale 10), again with teachers who hold qualifications in other languages endorsing this scale more than teachers without such qualifications.

In order to explore the second subquestion above, one-way ANOVA was calculated between the highest level of teachers' qualifications in other languages and their responses to each of the scales. Only teachers who reported having some qualifications in other languages were included in the analysis.

Table 37

One-way ANOVA test for all the scales depending on teachers' highest level of qualifications in other foreign languages different from the L3, including translation and interpreting

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. Certificate	3.67	1.11	.480	.696	--
		2. Bachelor's	3.65	.96			
		3. Master's	3.76	1.00			
		4. PhD	3.59	1.08			
2	To help students become effective multilingual communicators	1. Certificate	3.11	1.24	.619	.603	--
		2. Bachelor's	3.18	1.14			
		3. Master's	3.25	1.22			
		4. PhD	3.01	1.13			
3	Advantages due to knowledge of other languages	1. Certificate	3.47	.69	.039	.990	--
		2. Bachelor's	3.45	.63			
		3. Master's	3.45	.72			
		4. PhD	3.47	.62			
4	Advantages due to experience learning other languages	1. Certificate	3.48	.87	.254	.858	--
		2. Bachelor's	3.52	.79			
		3. Master's	3.45	.83			
		4. PhD	3.40	.98			
5	Promoting crosslinguistic connections	1. Certificate	4.18	.83	2.959	**.032**	1, 2 < 3, 4
		2. Bachelor's	4.11	.79			
		3. Master's	4.32	.74			
		4. PhD	4.48	.93			
6	Understanding the language learning process	1. Certificate	4.20	.70	.393	.758	--
		2. Bachelor's	4.21	.66			
		3. Master's	4.26	.64			
		4. PhD	4.30	.72			
7	Experience learning and using foreign languages	1. Certificate	4.07	.79	2.977	**.031**	1, 2 < 3, 4
		2. Bachelor's	4.15	.80			
		3. Master's	4.27	.72			
		4. PhD	4.34	.59			
8	Knowledge of foreign languages	1. Certificate	3.57	.85	6.217	**<.001**	1 < 2 < 3, 4
		2. Bachelor's	3.74	.72			
		3. Master's	3.86	.74			
		4. PhD	4.03	.36			
9	Training in SLA	1. Certificate	3.76	.87	1.028	.380	--
		2. Bachelor's	3.88	.81			
		3. Master's	3.85	.82			
		4. PhD	3.97	.71			

10	Training in TLA	1. Certificate 2. Bachelor's 3. Master's 4. PhD	3.19 3.43 3.24 3.28	.95 .99 1.02 1.09	2.159	.092	--

Notes. N=653; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers with a certificate/diploma/course in foreign languages/translation/interpreting, n=260;

(2) teachers with a bachelor's degree in foreign languages/translation/interpreting, n=167;

(3) teachers with a master's degree in foreign languages/translation/interpreting, n=210;

(4) teachers with a PhD in foreign languages/translation/interpreting, n=16.

As shown in Table 37, there do not exist significant differences between teachers' answers to most of the scales, with the exception of scales 5 (*Promoting crosslinguistic connections*), 7 (*Experience learning and using foreign languages*) and 8 (*Knowledge of and about foreign languages*). Regarding scale 5, teachers with the two lowest levels of qualifications in other foreign languages seemed to acknowledge the importance of their own language learning experience to promote crosslinguistic connections significantly less than teachers with higher qualifications in these languages, such as master's and doctoral degrees. A similar pattern is observed in teachers' responses to the importance for L3 teachers to have experience learning and using languages (scale 7), with teachers in the two lowest groups attaching significantly less importance to this element than teachers with higher qualifications in other languages. Teachers' endorsement of scale 8 (*Knowledge of and about foreign languages*) also shows a similar tendency. However, in this case teachers with the lowest level of qualifications in languages – certificate/diploma/course – responded significantly lower to this scale than teachers with bachelor's degrees.

These results suggest that the higher the level of qualifications teachers have in other foreign languages, the more important they consider their own experience learning languages to promote crosslinguistic comparisons in the L3 classroom (scale 5). Maybe as a result of their enhanced awareness about the usefulness of their previous experience and linguistic knowledge, teachers with higher qualifications in other languages attached more importance

to including experience learning and using other languages (scale 7) and knowledge of other languages (scale 8) as part of L3 teachers' training programmes.

The small number of significant differences in Table 37 is especially interesting if compared with the results in Table 36 above. It seems to be the fact of having qualifications in other languages, rather than the actual level of these qualifications, which is most significantly associated with teachers' higher awareness about the majority of the multilingualism concepts measured in this study.

These results suggest that teachers' beliefs about multilingualism may develop significantly at the very early stages of exposure to other foreign languages, regardless of the actual level of these qualifications. The implications of this finding for teacher training programmes are that, in order to raise teachers' awareness about multilingualism and TLA, it may not be necessary to request teachers to hold very high qualifications in other languages – it may be enough to complete some modules or lower level qualifications. According to the results in this study, even a short exposure to the experience of learning a foreign language could already make a significant difference to the way in which teachers understand and engage with multilingualism issues and L3 learners.

The third subquestion is based on the assumption that teachers with higher qualifications in teaching the target language or in education/pedagogy will be more reflective practitioners, which will enable them to analytically observe what happens in the language classroom in a greater measure than teachers with lower-level qualifications in these fields. Even if they are not familiar with TLA literature, more reflective practitioners may be able to notice how students' multilingualism systematically impacts their learning of the target language, and in turn develop their own beliefs about multilingualism and TLA. On the basis of this reasoning, the goal is to investigate whether teachers with higher qualifications

in these two fields actually hold more positive beliefs about the different concepts regarding multilingualism.

One-way ANOVA tests were calculated between these two background variables (*Qualifications in L3 teaching* and *Qualifications in education/pedagogy*) and the ten scales in this study. As it can be observed in Table 38, teachers' responses based on their level of qualifications in teaching the target language are only significantly different regarding their awareness of how students' prior experience learning languages may turn into an advantage for L3 learning (scale 4). Teachers' responses to scale 4 (*Advantages due to experience learning other languages*) were also significantly different based on their highest level of qualifications in education/pedagogy, as shown in Table 39. This table also shows that the higher the level of the teachers' qualifications in education/pedagogy, the more aware they seem of how incorporating students' other languages can both speed up the L3 learning process (scale 1), and help students become better communicators in multilingual contexts (scale 2).

Table 38

One-way ANOVA test for all the scales depending on teachers' highest level of qualifications in teaching the L3

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. Certificate	3.64	1.03	1.122	.339	--
		2. Bachelor's	3.63	1.07			
		3. Master's	3.71	1.05			
		4. PhD	3.99	.75			
2	To help students become effective multilingual communicators	1. Certificate	2.99	1.19	2.083	.101	--
		2. Bachelor's	3.25	1.18			
		3. Master's	3.23	1.23			
		4. PhD	3.10	1.14			
3	Advantages due to knowledge of other languages	1. Certificate	3.41	.69	1.478	.219	--
		2. Bachelor's	3.51	.67			
		3. Master's	3.38	.72			

		4. PhD	3.31	.47			
4	Advantages due to experience learning other languages	1. Certificate	3.33	.87	3.146	**.025**	1 < 3 < 2, 4
		2. Bachelor's	3.60	.78			
		3. Master's	3.43	.84			
		4. PhD	3.51	.70			
5	Promoting crosslinguistic connections	1. Certificate	4.10	.87	.450	.717	--
		2. Bachelor's	4.15	.80			
		3. Master's	4.18	.79			
		4. PhD	4.10	.82			
6	Understanding the language learning process	1. Certificate	4.12	.72	1.006	.389	--
		2. Bachelor's	4.21	.65			
		3. Master's	4.20	.65			
		4. PhD	4.06	.69			
7	Experience learning and using foreign languages	1. Certificate	4.10	.76	.735	.532	
		2. Bachelor's	4.05	.85			
		3. Master's	4.15	.70			
		4. PhD	4.15	.73			
8	Knowledge of foreign languages	1. Certificate	3.61	.80	.472	.702	--
		2. Bachelor's	3.66	.78			
		3. Master's	3.69	.78			
		4. PhD	3.67	.60			
9	Training in SLA	1. Certificate	3.77	.86	.545	.651	--
		2. Bachelor's	3.83	.80			
		3. Master's	3.86	.83			
		4. PhD	3.87	.82			
10	Training in TLA	1. Certificate	3.10	.98	1.757	.154	--
		2. Bachelor's	3.28	.94			
		3. Master's	3.29	1.03			
		4. PhD	3.21	1.13			

Notes. N=756; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers with a certificate/diploma/course in teaching the L3, n=198;

(2) teachers with a bachelor's degree in teaching the L3, n=148;

(3) teachers with a master's degree in teaching the L3, n=383;

(4) teachers with a PhD in teaching the L3, n=27.

Table 39

One-way ANOVA test for all the scales depending on teachers' highest level of qualifications in education/pedagogy

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. Certificate	3.54	1.01	2.937	**.033**	1 < 2 < 3 < 4
		2. Bachelor's	3.63	1.04			
		3. Master's	3.77	1.05			
		4. PhD	4.06	.76			
2	To help students become effective multilingual communicators	1. Certificate	2.98	1.13	3.426	**.017**	1 < 2, 3 < 4
		2. Bachelor's	3.27	1.20			
		3. Master's	3.25	1.25			
		4. PhD	3.67	1.05			
3	Advantages due to knowledge of other languages	1. Certificate	3.37	.69	1.209	.306	--
		2. Bachelor's	3.48	.73			
		3. Master's	3.42	.70			
		4. PhD	3.22	.71			
4	Advantages due to experience learning other languages	1. Certificate	3.39	.86	3.042	**.028**	1, 3 < 2, 4
		2. Bachelor's	3.56	.73			
		3. Master's	3.33	.87			
		4. PhD	3.64	.72			
5	Promoting crosslinguistic connections	1. Certificate	4.15	.82	.858	.463	--
		2. Bachelor's	4.18	.82			
		3. Master's	4.26	.75			
		4. PhD	4.12	.88			
6	Understanding the language learning process	1. Certificate	4.20	.64	.277	.842	--
		2. Bachelor's	4.26	.69			
		3. Master's	4.23	.65			
		4. PhD	4.18	.71			
7	Experience learning and using foreign languages	1. Certificate	4.09	.76	.722	.539	--
		2. Bachelor's	4.19	.71			
		3. Master's	4.18	.76			
		4. PhD	4.09	.74			
8	Knowledge of foreign languages	1. Certificate	3.62	.79	.295	.829	--
		2. Bachelor's	3.69	.82			
		3. Master's	3.68	.78			
		4. PhD	3.73	.81			
9	Training in SLA	1. Certificate	3.81	.82	.762	.516	--
		2. Bachelor's	3.93	.73			
		3. Master's	3.88	.84			
		4. PhD	3.78	.78			

10	Training in TLA	1. Certificate 2. Bachelor's 3. Master's 4. PhD	3.14 3.43 3.29 3.38	1.02 .91 1.01 .90	2.452	.062	--

Notes. N=630; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers with a certificate/diploma/course in teaching the L3, n=198;

(2) teachers with a bachelor's degree in teaching the L3, n=148;

(3) teachers with a master's degree in teaching the L3, n=383;

(4) teachers with a PhD in teaching the L3, n=27.

The results for scale 4 (*Advantages due to experience learning other languages*) show an interesting pattern in teachers' responses and the highest level of qualifications they hold in L3 teaching and in education/pedagogy. Teachers' awareness of how students' prior experiences learning languages can help them learn the L3 more efficiently seems to increase significantly in teachers who hold bachelor's degrees, in comparison with those who only have introductory qualifications (certificate/diploma/course). However, teachers with a master's degree are significantly less aware of how students' can benefit from their previous language learning experiences than teachers whose highest level of qualifications is a bachelor's degree. In contrast, teachers who have a PhD in education/pedagogy are again more aware of their students' advantages due to their prior experiences learning other languages.

These results suggest that introductory courses to L3 teaching and education/pedagogy do not seem to raise teachers' awareness of the benefits that their students may enjoy while learning the L3 due to their previous experience learning other languages. Teachers with bachelor's degrees, on the contrary, hold a much more positive view about the role that students' language learning experience can play in their ability to learn the L3. The fact that teachers with higher level qualifications such as master's and doctoral degrees agree to a lesser extent with the role of students' experience in learning the L3 may suggest that the view about this issue offered in bachelor's degrees may be slightly

exaggerated. Teachers who have studied in more depth and length the processes involved in learning and teaching may actually have become more realistic about the advantage that students' experience learning other languages can bring to L3 learning.

Teachers' responses to scales 1 (*To facilitate the L3 learning process*) and 2 (*To help students become effective multilingual communicators*) in Table 39 on the basis of teachers' highest qualifications in education/pedagogy are also interesting for two different reasons. First, the results suggest that higher qualifications in education may be associated with teachers' higher awareness of how L3 learning can be facilitated by relating new content to students' knowledge of other languages. Teachers with a background in general education and pedagogy may be more conscious of how learning processes are heavily dependent on establishing meaningful connections between the new information and what is already known to the students (Murray, 1995). Based on this general educational principle, teachers with higher qualifications in education may not be aware of issues related to multilingualism and TLA as such, but seem more aware of how L3 learning can be enhanced by relating the L3 with students' knowledge of other languages.

Second, the results in Table 39 also suggest that teachers with higher qualifications in general education endorse more strongly the idea that using other languages may help their students become more efficient communicators in multilingual contexts (scale 2). Teachers with a stronger background in education and pedagogy should be more aware of how learning needs to be embedded within a wider social purpose. As a consequence, rather than considering L3 learning as an end in itself, teachers with more advanced qualifications in education/pedagogy may see L3 learning within a wider educational context and serving a higher-level social purpose, such as enhancing communication in a variety of complex linguistic settings.

Beyond these vague suppositions, the results in Table 38 and Table 39 do not support the idea that higher qualifications in teaching the target language or in education may be consistently associated with stronger beliefs about multilingualism at large. This is despite the fact that participants in this study are all teaching multilingual students, and that teachers with higher qualifications are expected to be more reflective practitioners, and therefore better able to observe and analyse the learning processes that their students are engaging in. However, it could be claimed that you can only see what you are looking for, and if L3 teachers have no awareness of how learning an L3 may differ from an L2, they may not be able to recognise these phenomena by simple observation.

Bringing all the results in this section together, the conclusion seems to be that teachers may not be able to develop their beliefs about multilingualism through extended and reflective observation of how multilingual students learn additional languages, regardless of how advanced their qualifications are in teaching the target language or in education. On the contrary, these findings suggest that teachers with some level of qualifications in other foreign languages are more aware of (1) the characteristics of L3 learning, (2) the advantages that their own language learning experience may bring to their teaching, and (3) the importance of training in TLA and of acquiring experience learning and using foreign languages as part of L3 teacher training.

Therefore, it seems to be teachers' experience of learning foreign languages in a formal context (i.e., leading to a qualification, regardless of the level) which can be most significantly associated with higher awareness of the different multilingualism issues measured in this study, rather than their qualifications in education or in teaching the target language. This finding is most enlightening to inform future teacher training programmes aiming to raise teachers' awareness about multilingualism and TLA-related issues, both in the case of language teachers across the spectrum, and of primary and secondary teachers of

other subjects who may benefit from this enhanced awareness to better understand the challenges faced by students with multilingual backgrounds.

6.3.3.7 Teachers' experience

Teachers' experience has also been identified as an important element associated with teachers' beliefs about language learning and teaching issues (Lim & Torr, 2007; Mady, 2012; Vaish, 2012). For this reason, the questionnaire in this study aimed to collect detailed information about teachers' experience teaching the target language and, most importantly, their experience teaching other foreign languages different from the L3. This last element was identified as very relevant for effective L3 teaching by Jessner (2008), who claims that L3 teachers should not only be multilingual but also able to teach more than one language.

Therefore, the goal in this section is to explore how teachers' higher awareness about multilingualism issues can be associated with teachers' experience teaching other languages and, by comparison, also the target language. On the basis of this, three subquestions were formulated to guide the analysis of results in this section:

Do teachers with experience teaching other languages answer more positively to any of the scales?

Do teachers with more experience teaching other languages answer more positively to any of the scales?

Do teachers with more experience teaching the target language answer more positively to any of the scales?

Table 40 provides an overview of participants' experience teaching the target language and other foreign languages, both for the whole sample and for each language subsample. As it can be observed, most teachers in this study have a significant amount of experience teaching the target language, with the majority of the participants reporting over 10 years of experience (66.2%). The remaining percentage is divided between teachers who

report no experience at all or less than a year (2%) and teachers who have between 1 and 10 years of experience teaching the target language (31.8%). These proportions are similar across the three language subsamples.

With regard to experience teaching other languages, almost two fifths of the participants (39.2%) recognise not having any experience teaching other languages different from the L3. Of the teachers who report having such experience, 34.6% have taught other languages for less than 5 years, with the remaining 26.1% of teachers reporting over 6 years of experience teaching these languages. These percentages also seem consistent across the three language subsamples.

Table 40

Teachers' experience teaching the target language and teaching other foreign languages, for the whole sample and for each language subsample

		Whole sample (N=984)		Spanish (n=290)		French (n=381)		German (n=313)	
Experience teaching the target language	No experience	4	(0.4%)	2	(0.7%)	1	(0.3%)	1	(0.3%)
	Less than a year	16	(1.6%)	7	(2.4%)	6	(1.6%)	3	(1.0%)
	1-5 years	136	(13.8%)	47	(16.2%)	43	(11.3%)	46	(14.7%)
	6-10 years	177	(18.0%)	66	(22.8%)	55	(14.4%)	56	(17.9%)
	11-20 years	298	(30.3%)	99	(34.1%)	111	(29.1%)	88	(28.1%)
	20+ years	353	(35.9%)	69	(23.8%)	165	(43.3%)	119	(38.0%)
Experience teaching other foreign languages	No experience	386	(39.2%)	104	(35.9%)	165	(43.3%)	117	(37.4%)
	Less than a year	126	(12.8%)	32	(11.0%)	46	(12.1%)	48	(15.3%)
	1-5 years	215	(21.8%)	72	(24.8%)	80	(21.0%)	63	(20.1%)
	6-10 years	70	(7.1%)	21	(7.2%)	20	(5.2%)	29	(9.3%)
	11-20 years	87	(8.8%)	27	(9.3%)	32	(8.4%)	28	(8.9%)
	20+ years	100	(10.2%)	34	(11.7%)	38	(10.0%)	28	(8.9%)

In order to explore the first subquestion, independent samples t-test was calculated between teachers with experience teaching other languages and those without any such experience. As Table 41 shows, there seems to be a significant difference between the responses of these two groups to most of the scales, namely scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 5 (*Promoting crosslinguistic connections*), 6 (*Understanding the language learning process*), 7 (*Experience learning and using foreign languages*), 8 (*Knowledge of and about foreign languages*), 9 (*Training in SLA*) and 10 (*Training in TLA*). In all cases, teachers with experience teaching other languages endorsed the scales significantly more than teachers without any such experience. This suggests that teachers who have some experience teaching other languages different from the target language, however minimal this experience may be, have a higher awareness of how students' other languages can be useful in the L3 classroom to facilitate learning (scale 1) and to develop students' multilingual communication skills (scale 2).

Table 41

Independent samples t-test for all the scales between teachers with and without experience teaching other foreign languages besides the target language

Scale	Label	Groups	Mean	Standard Deviation	t	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. Without	3.56	1.09	-2.326	**.020**	1 < 2
		2. With	3.72	.99			
2	To help students become effective multilingual communicators	1. Without	2.99	1.23	-2.865	**.004**	1 < 2
		2. With	3.21	1.18			
3	Advantages due to knowledge of other languages	1. Without	3.37	.73	-.865	.387	
		2. With	3.41	.69			
4	Advantages due to experience learning other languages	1. Without	3.37	.85	-1.521	.129	
		2. With	3.45	.81			

5	Promoting crosslinguistic connections	1. Without	4.09	.85	-2.856	**.004**	1 < 2
		2. With	4.23	.77			
6	Understanding the language learning process	1. Without	4.09	.73	-3.179	**.002**	1 < 2
		2. With	4.23	.63			
7	Experience learning and using foreign languages	1. Without	4.02	.75	-3.403	**.001**	1 < 2
		2. With	4.19	.74			
8	Knowledge of and about foreign languages	1. Without	3.59	.79	-2.930	**.003**	1 < 2
		2. With	3.74	.77			
9	Training in SLA	1. Without	3.70	.87	-2.695	**.007**	1 < 2
		2. With	3.85	.82			
10	Training in TLA	1. Without	3.12	.99	-2.625	**.009**	1 < 2
		2. With	3.29	1.00			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).
(1) teachers without experience teaching other foreign languages besides the target language, n=386;
(2) teachers with experience teaching other foreign languages besides the target language, n=598.

Teachers with experience teaching other languages are also more aware of how their own experience learning other languages may enhance their teaching by encouraging students to establish connections across the languages they know (scale 5) and by helping them understand better the language learning process that their students are going through (scale 6). These participants seemed to also attach more importance to all the elements in the recommended training of L3 teachers, including knowledge and experience learning and using other languages (scales 7 and 8) and training both in SLA and in TLA (scales 9 and 10).

These results are interesting for several reasons. First, it is worth mentioning the fact that the only two scales for which the differences observed were not significant are those regarding L3 learning (scales 3 and 4). This suggests that teaching several languages does not make teachers more aware of how L3 learning processes may differ from L2 learning. While this is to some extent surprising, it could be explained by the fact that some of the languages they are teaching may just be being learnt as L2s rather than L3s, which limits their exposure

to actual L3 learners. On the other hand, in order to know a language well enough to be able to teach it, participants might have gone themselves through the process of learning at least one of their languages as an L3, which on its own could have already made them more aware of the differences between L2 and L3 learning.

Furthermore, the experience of teaching other foreign languages seems to be the only background variable which can be associated with significantly higher responses to all the scales regarding the elements important in the training of L3 teachers. Teachers with such experience do not only seem more aware of how essential it is for L3 teachers to know other languages and to have gone themselves through the process of learning and using foreign languages, they also recognise more strongly the importance of specialised training in both SLA and TLA. This is in line with Jessner's (2008) claim that the ideal L3 teacher will need to have a very solid foundation in the theory and principles of L2 learning and teaching, and additionally receive specific training on multilingualism and TLA, focusing on how L3 learning and teaching differs from L2 learning and teaching.

In view of these results, the second subquestion investigates whether the differences discussed in the frame of the first subquestion increase with teachers' experience of teaching other languages, that is, whether the more experience teachers have of teaching other languages, the more they endorse the different scales for which there was a significant difference. In order to explore this question, one-way ANOVA tests were calculated between this background variable and each of the scales.

As shown in Table 42, significant differences seem to exist in teachers' responses to scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 4 (*Advantages due to experience learning other languages*), 5 (*Promoting crosslinguistic connections*), 6 (*Understanding the language learning process*) and 7 (*Experience learning and using foreign languages*) based on their years of experience

teaching other languages. With the exception of scale 4, teachers' awareness of the scales for which there is a significant different seems to increase with the years of experience teaching other foreign languages.

In comparison with the results in Table 41, teachers' responses to scales 8 (*Knowledge of and about foreign languages*), 9 (*Training in SLA*) and 10 (*Training in TLA*) do not show any significant difference. This suggests that the importance that teachers attach to the three elements measured by these three scales (knowledge of foreign languages, training in SLA and training in TLA) does not increase with the number of years of experience teaching foreign languages, but rather become apparent as soon as teachers start teaching other foreign languages different from the L3.

Table 42

One-way ANOVA test for all the scales depending on teachers' number of years teaching foreign languages other than the L3

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. No experience	3.56	1.09	3.179	**.007**	1, 3, 2, 4 < 5, 6
		2. Less than a year	3.66	1.04			
		3. 1-5 years	3.59	.98			
		4. 6-10 years	3.75	.99			
		5. 11-20 years	3.91	.92			
		6. 20+ years	3.90	.96			
2	To help students become effective multilingual communicators	1. No experience	2.99	1.23	5.248	**<.001**	1, 2, 3 < 4 < 5 < 6
		2. Less than a year	3.09	1.19			
		3. 1-5 years	3.02	1.15			
		4. 6-10 years	3.27	1.24			
		5. 11-20 years	3.40	1.10			
		6. 20+ years	3.56	1.15			
3	Advantages due to knowledge of other languages	1. No experience	3.37	.73	1.927	.087	--
		2. Less than a year	3.40	.59			
		3. 1-5 years	3.42	.71			
		4. 6-10 years	3.37	.74			
		5. 11-20 years	3.59	.68			
		6. 20+ years	3.30	.71			

4	Advantages due to experience learning other languages	1. No experience	3.37	.85	2.595	**.024**	6 < 1, 2, 4, 3 < 5
		2. Less than a year	3.39	.76			
		3. 1-5 years	3.51	.79			
		4. 6-10 years	3.42	.84			
		5. 11-20 years	3.63	.82			
		6. 20+ years	3.27	.86			
5	Promoting crosslinguistic connections	1. No experience	4.09	.85	2.444	**.033**	1, 2, 3 < 4, 5, 6
		2. Less than a year	4.17	.82			
		3. 1-5 years	4.19	.78			
		4. 6-10 years	4.32	.64			
		5. 11-20 years	4.35	.66			
		6. 20+ years	4.25	.82			
6	Understanding the language learning process	1. No experience	4.09	.73	3.181	**.007**	1, 2, 3, 6 < 4, 5
		2. Less than a year	4.17	.60			
		3. 1-5 years	4.19	.63			
		4. 6-10 years	4.35	.54			
		5. 11-20 years	4.33	.60			
		6. 20+ years	4.22	.72			
7	Experience learning and using foreign languages	1. No experience	4.02	.75	2.590	**.024**	1, 2, 3 < 4, 5, 6
		2. Less than a year	4.16	.73			
		3. 1-5 years	4.16	.73			
		4. 6-10 years	4.26	.80			
		5. 11-20 years	4.21	.74			
		6. 20+ years	4.22	.76			
8	Knowledge of foreign languages	1. No experience	3.59	.79	2.174	.055	--
		2. Less than a year	3.66	.80			
		3. 1-5 years	3.76	.75			
		4. 6-10 years	3.72	.88			
		5. 11-20 years	3.76	.69			
		6. 20+ years	3.81	.75			
9	Training in SLA	1. No experience	3.70	.87	1.762	.118	--
		2. Less than a year	3.81	.85			
		3. 1-5 years	3.90	.82			
		4. 6-10 years	3.81	.91			
		5. 11-20 years	3.85	.75			
		6. 20+ years	3.82	.74			
10	Training in TLA	1. No experience	3.12	.99	1.717	.128	--
		2. Less than a year	3.23	1.04			
		3. 1-5 years	3.26	1.02			
		4. 6-10 years	3.32	1.04			
		5. 11-20 years	3.33	.95			
		6. 20+ years	3.38	.92			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers with no experience teaching foreign languages other than the L3, n=386;
(2) teachers with less than a year of experience teaching foreign languages other than the L3, n=126;
(3) teachers with 1-5 years of experience teaching foreign languages other than the L3, n=215;
(4) teachers with 6-10 years of experience teaching foreign languages other than the L3, n=70;
(5) teachers with 11-20 years of experience teaching foreign languages other than the L3, n=87;
(6) teachers with more than 20 years of experience teaching foreign languages other than the L3, n=100.

Results in Table 42 show a significant difference in teachers' responses to scale 4 (*Advantages due to experience learning other languages*), which was not significant in Table 41. The pattern observed in teachers' responses suggests that teachers with more than twenty years of experience are the least aware of how students' may benefit from their previous language learning experience while learning the L3. Their awareness of this advantage is significantly lower than that of teachers with between one and ten years of experience teaching languages other than the L3, which is in turn significantly lower than the awareness of teachers with 11-20 years of experience. These results are difficult to explain and would require further qualitative research to understand the reasons underlying these differences.

Combining the results in Table 41 and Table 42, it could be suggested the existence of a very low threshold level for the effect of teachers' experience teaching other languages on their awareness of multilingualism issues. Beyond this threshold, the awareness keeps increasing with the number of years of experience, but only to a minor extent. As a result, even a very short exposure to teaching other languages may have a significant impact on teachers' beliefs about multilingualism. L3 teacher training programmes could, therefore, include short experiences teaching other languages, which according to the results in this section would already contribute significantly and positively to these teachers' beliefs about L3 learning and teaching phenomena.

Finally, the third subquestion aims to explore whether similar significant differences can be observed between the number of years that participants have been teaching the target language and any of the scales. These results were analysed with a particular interest in the scales for which significant differences were identified in the second subquestion regarding teachers' experience teaching other languages, that is, scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 4 (*Advantages due to experience learning other languages*), 5 (*Promoting crosslinguistic connections*), 6 (*Understanding the language learning process*) and 7 (*Experience learning and using foreign languages*). It is unclear why four participants reported not having any experience teaching the L3 since this was the main requirement to participate in the study. Given their irrelevance, their responses were excluded from the analysis reported in Table 43.

Table 43

One-way ANOVA test for all the scales depending on teachers' number of years teaching the L3

Scale	Label	Groups	Mean	Standard Deviation	F	Sig.	Group-based differences*
1	To facilitate the L3 learning process	1. Less than a year	3.30	.93	1.681	.136	--
		2. 1-5 years	3.61	.92			
		3. 6-10 years	3.51	1.06			
		4. 11-20 years	3.71	1.05			
		5. 20+ years	3.73	1.03			
2	To help students become effective multilingual communicators	1. Less than a year	2.79	1.06	4.888	**<.001**	1, 2, 3 < 4 < 5
		2. 1-5 years	2.89	1.13			
		3. 6-10 years	2.88	1.21			
		4. 11-20 years	3.15	1.23			
		5. 20+ years	3.32	1.18			
3	Advantages due to knowledge of other languages	1. Less than a year	3.67	.78	1.690	.134	--
		2. 1-5 years	3.47	.71			
		3. 6-10 years	3.35	.71			
		4. 11-20 years	3.44	.66			
		5. 20+ years	3.35	.73			
4	Advantages due to experience learning other languages	1. Less than a year	3.44	.74	.189	.967	--
		2. 1-5 years	3.37	.74			
		3. 6-10 years	3.42	.80			

		4. 11-20 years	3.44	.81			
		5. 20+ years	3.42	.89			
5	Promoting crosslinguistic connections	1. Less than a year	3.85	.78	2.105	.063	--
		2. 1-5 years	4.13	.73			
		3. 6-10 years	4.05	.85			
		4. 11-20 years	4.21	.81			
		5. 20+ years	4.24	.79			
6	Understanding the language learning process	1. Less than a year	4.22	.62	1.680	.137	--
		2. 1-5 years	4.07	.62			
		3. 6-10 years	4.10	.70			
		4. 11-20 years	4.22	.66			
		5. 20+ years	4.22	.69			
7	Experience learning and using foreign languages	1. Less than a year	4.17	.72	2.052	.069	--
		2. 1-5 years	4.13	.72			
		3. 6-10 years	3.97	.74			
		4. 11-20 years	4.15	.72			
		5. 20+ years	4.17	.79			
8	Knowledge of foreign languages	1. Less than a year	3.70	.74	2.498	**.029**	3 < 4, 1, 2, 5
		2. 1-5 years	3.75	.74			
		3. 6-10 years	3.52	.81			
		4. 11-20 years	3.66	.80			
		5. 20+ years	3.76	.76			
9	Training in SLA	1. Less than a year	3.91	.63	1.512	.183	--
		2. 1-5 years	3.83	.81			
		3. 6-10 years	3.68	.82			
		4. 11-20 years	3.77	.90			
		5. 20+ years	3.84	.81			
10	Training in TLA	1. Less than a year	3.45	.93	2.002	.076	--
		2. 1-5 years	3.24	.99			
		3. 6-10 years	3.08	.91			
		4. 11-20 years	3.20	1.03			
		5. 20+ years	3.29	1.02			

Notes. N=984; * Differences are significant at the 0.05 level (2-tailed).

(1) teachers with less than a year of experience teaching foreign languages other than the L3, n=16;

(2) teachers with 1-5 years of experience teaching foreign languages other than the L3, n=136;

(3) teachers with 6-10 years of experience teaching foreign languages other than the L3, n=177;

(4) teachers with 11-20 years of experience teaching foreign languages other than the L3, n=298;

(5) teachers with more than 20 years of experience teaching foreign languages other than the L3, n=353.

As Table 43 shows, significant differences in teachers' responses only appeared for scales 2 (*To help students become effective multilingual communicators*) and 8 (*Knowledge of*

and about foreign languages). In the case of scale 2, the significant differences observed indicate that the more experience teachers have of teaching the target language, the more useful they consider the use of students' other languages in the L3 classroom to help them become better multilingual communicators. In Table 42 above, this scale also showed a similar significant difference based on participants' experience teaching other languages, which suggests that the number of years that teachers have been teaching both the target language and other languages is associated with their beliefs about this scale. Interestingly, teachers' experience of teaching the L3 did not show any significant differences for scale 1 regarding the usefulness of incorporating students' other languages in the L3 classroom to facilitate the L3 learning process.

Possibly more interesting is the pattern observed in teachers' responses to scale 8. Teachers who reported between 6 and 10 years of experience teaching the L3 were the least aware of the importance of knowing other languages as a key element in L3 teachers' training. Teachers with less than one year of experience, 1 to 5 years, 11 to 20 years, and more than twenty years all showed similar beliefs regarding the importance of this element. These results are again difficult to explain with the quantitative data collected in this study, and would require further qualitative investigation to better uncover the underlying relationship between teachers' experience of teaching the L3 and their beliefs regarding this scale.

6.3.4 Answering Research Question (2): Summary and conclusions

The aim of Research Question (2) was to identify background variables regarding the L3 students, the L3 teaching context, and the linguistic and professional profile of L3 teachers which could be associated with significant differences in L3 teachers' beliefs about multilingualism. Following the detailed analysis of these associations in 6.3.1, 6.3.2 and 6.3.3

above, this subsection will focus only on those background variables which show a significant association with the majority of the scales (i.e., six or more).

While Table 44 provides an overview of all the significant associations between the scales and all the background variables, Table 45 includes only those background variables which are associated with participants' responses to the majority of the scales, and which are discussed in this section. The goal is to offer a clearer picture of the variables which may be associated with more positive beliefs about most of the measured constructs, which in turn means teachers' higher awareness of the principles underlying L3 learning and teaching processes, and therefore about multilingualism as a whole. According to several authors (Beacco & Byram, 2007; Candelier & Castellotti, 2013; Cavalli, 2005; Conteh, Copland & Creese, 2014; De Angelis, 2011; Jessner, 2008), teachers' enhanced awareness about these issues will be key to ensure that they can adequately address L3 learners' needs and maximise their language learning potential, making the learning process smoother and more efficient.

In discussing the background variables and their associations with the scales, this subsection will follow the three categories into which the background variables were divided: those regarding the language learner (A to D), those regarding the teaching context (E and F), and those regarding the language teacher (G to S). Again, it is important to keep this distinction in mind when trying to identify the key variables which may be associated with teachers' higher awareness of L3 learning and teaching processes, and consider their relevance based on the extent to which they can be addressed through more appropriate language policies and teacher training programmes.

As it can be observed in Table 44, none of the variables regarding the teaching context shows a significant association with a sufficient number of scales. This means that whether the country is multilingual or has a large percentage of the population with a high

level of proficiency in an L2 is not associated with teachers' higher awareness of multilingualism. Unfortunately, no previous study has investigated this specific issue, and further research should be conducted in other geographical areas to confirm whether these two background variables could be associated with teachers' beliefs about multilingualism.

Among the background variables related to the language learner, background variable F regarding whether students share or not a common L1 is significantly associated with scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 3 (*Advantages due to knowledge of other languages*), 5 (*Promoting crosslinguistic connections*), 8 (*Knowledge of and about foreign languages*), 9 (*Training in SLA*) and 10 (*Training in TLA*). For all these scales, the results suggest that participants who teach groups where most of the students share a common L1 have higher awareness of the measured concepts.

These teachers consider the use of students' other languages more helpful both to facilitate L3 learning (scale 1) and to develop students' multilingual communication skills (scale 2). They believe that their L3 students have advantages derived from their knowledge of other languages (scale 3), and understand better how their own experience learning languages may allow them to promote crosslinguistic connections in the L3 classroom (scale 5). They also attach more importance to the knowledge of and about foreign languages (scale 8), training in SLA (scale 9) and training in TLA (scale 10) as part of the recommended training for L3 teachers.

Teachers whose students share a common L1 have, therefore, beliefs about the three main elements of multilingualism which are closer to what research identifies as adequate to ensure more effective L3 teaching (Beacco & Byram, 2007; Candelier & Castellotti, 2013; Cavalli, 2005; Conteh, Copland & Creese, 2014; De Angelis, 2011; Jessner, 2008). Again, no existing studies have explored how students sharing a common L1 may be associated with

teachers' beliefs, neither about multilingualism nor about other educational constructs. This topic should be investigated in more depth and constitute the object of further research.

Interestingly, the rest of the background variables which have shown a significant association with the majority of the scales fall under the third category regarding the language teacher. This is an encouraging result since elements regarding language teachers can be addressed to a certain extent through better recruitment, training and retention programmes for L3 teachers, while elements regarding the learners or the context would be much more difficult to alter.

Within this last category of background variables, teachers' IM (background variable E) seems to be associated with higher responses to all the scales except scales 3 (*Advantages due to knowledge of other languages*), 4 (*Advantages due to experience learning other languages*) and 9 (*Training in SLA*). The results suggest that the more multilingual teachers are, the more keen they are to incorporate students' other languages in the L3 classroom both to facilitate learning (scale 1) and to help students become better multilingual communicators (scale 2). Teachers who are more multilingual are also more aware of how their own experience learning languages can contribute towards their teaching by enabling them to promote crosslinguistic connections between the students' different linguistic systems (scale 5) and by developing a better understanding of what learning a language involves (scale 6). These results support Otwinowska's (2013) findings, who observed that multilingual teachers were more aware of multilingualism issues than bilingual teachers.

Table 44

Summary of correlations and group-based differences for the 10 scales and the 19 background variables

Background variables		Scales		1	2	3	4	5	6	7	8	9	10
		Concepts		To facilitate the L3 learning process	To help students become effective multilingual communicators	Advantages due to knowledge of other languages	Advantages due to experience learning other languages	Promoting crosslinguistic connections	Understanding the language learning process	Experience learning and using foreign languages	Knowledge of and about foreign languages	Training in SLA	Training in TLA
		Statistical analysis	Groups										
A	Students share a common L1	t-test	1. no 2. yes	1 < 2 (**)	1 < 2 (**)	1 < 2 (**)	--	1 < 2 (**)	--	--	1 < 2 (**)	1 < 2 (*)	1 < 2 (*)
B	Students' IM	t-test	n/a	--	--	--	--	--	--	--	--	--	--
C	Students' level in the L3	ANOVA	1. A1-A2 2. B1-B2 3. C1-C2	--	--	--	1 < 2, 3 (*)	--	--	--	--	--	--
D	Students' age (years)	ANOVA	1. 6-11 2. 12-17 3. 18-23 4. 24-49 5. 50+	1 < 2,3,4,5 (**)	1, 4 < 2,3,5 (**)	--	--	1 < 2,3,4,5 (**)	--	--	1, 4 < 2,3,5 (**)	--	4 < 3 < 1,2 < 5 (*)
E	Multilingual country	t-test	1. no 2. yes	--	1 > 2 (*)	--	1 > 2 (*)	--	--	--	--	--	--

F	Country with high L2 proficiency	t-test	1. not high 2. high	1 < 2 (**)	1 < 2 (**)	--	1 > 2 (**)	--	--	--	--	--	1 < 2 (**)
G	Native L3 speaker	t-test	NN = non-native N = Native	NN > N (**)	NN > N (**)	--	NN < N (*)	--	--	--	NN > N (*)	--	--
H	Teachers native of students' L1	t-test	1. no 2. yes	1 < 2 (**)	1 < 2 (**)	--	--	1 < 2 (**)	1 < 2 (*)	--	--	--	--
I	Teachers' level in students L1	Correlation	n/a	--	--	--	$.10^{*}$	$.13^{*}$	--	$.18^{**}$	$.19^{**}$	--	--
J	Number of learnt foreign languages	ANOVA	1. 1 lang 2. 2-4 lang 3. 5-7 lang 4. 8+ lang	1 < 2, 3 < 4 (**)	1 < 2, 4 < 3 (**)	--	--	1 < 2, 3 <4 (**)	--	1 < 2, 3 < 4 (*)	1 < 2, 3 < 4 (*)	--	--
K	Number of languages grown up with	ANOVA	n/a	--	--	--	--	--	--	--	--	--	--
L	Teachers' IM	ANOVA	1. low 2. medium 3. high	1 < 2 < 3 (**)	1 < 2, 3 (**)	--	--	1 < 2 < 3 (**)	1, 2 < 3 (**)	1 < 2, 3 (**)	1 < 2 < 3 (**)	--	1 < 2, 3 (*)
M	Teachers have qualifications in other languages	t-test	1. no 2. yes	--	--	1 < 2 (**)	1 < 2 (**)	1 < 2 (*)	1 < 2 (**)	1 < 2 (*)	--	--	1 < 2 (*)

N	Level of teachers' qualifications in other languages	ANOVA	1. Certificate 2. Bachelor's 3. Master's 4. PhD	--	--	--	--	1, 2 < 3, 4 (*)	--	1, 2 < 3, 4 (*)	1 < 2 < 3, 4 (**)	--	--
O	Level of teachers' qualifications in teaching the target language	ANOVA	1. Certificate 2. Bachelor's 3. Master's 4. PhD	--	--	--	1 < 3 < 2, 4 (*)	--	--	--	--	--	--
P	Level of teachers' qualifications in education	ANOVA	1. Certificate 2. Bachelor's 3. Master's 4. PhD	1 < 2 < 3 < 4 (*)	1 < 2, 3 < 4 (*)	--	1, 3 < 2, 4 (*)	--	--	--	--	--	--
Q	Teachers have experience teaching other languages	t-test	1. no 2. yes	1 < 2 (*)	1 < 2 (*)	--	--	1 < 2 (*)	1 < 2 (*)	1 < 2 (**)	1 < 2 (*)	1 < 2 (*)	1 < 2 (*)
R	Years of experience teaching other languages	ANOVA	1. No experience 2. < 1 yr 3. 1-5 yrs 4. 6-10 yrs 5. 11-20 yrs 6. 20+ yrs	1, 3, 2, 4 < 5, 6 (*)	1, 2, 3 < 4 < 5 < 6 (**)	--	6 < 1, 2, 4, 3 < 5 (*)	1, 2, 3 < 4, 5, 6 (*)	1, 2, 3, 6 < 4, 5 (*)	1, 2, 3 < 4, 5, 6 (*)	--	--	--
S	Years of experience teaching the L3	ANOVA	1. < 1 yr 2. 1-5 yrs 3. 6-10 yrs 4. 11-20 yrs 5. >20 yrs	--	1, 2, 3 < 4 < 5 (**)	--	--	--	--	--	3 < 4, 1, 2, 5 (*)	--	--

Table 45

Summary of group-based differences for the 10 scales and the 5 background variables for which significant differences were found in six or more scales

	Scales			1	2	3	4	5	6	7	8	9	10
Background variables	Concepts			To facilitate the L3 learning process	To help students become effective multilingual communicators	Advantages due to knowledge of other languages	Advantages due to experience learning other languages	Promoting crosslinguistic connections	Understanding the language learning process	Experience learning and using foreign languages	Knowledge of and about foreign languages	Training in SLA	Training in TLA
		Statistical analysis	Groups										
A	Students share a common L1	t-test	1. no 2. yes	1 < 2 (**)	1 < 2 (**)	1 < 2 (**)	--	1 < 2 (**)	--	--	1 < 2 (**)	1 < 2 (*)	1 < 2 (*)
L	Teachers' IM	ANOVA	1. low 2. medium 3. high	1 < 2 < 3 (**)	1 < 2, 3 (**)	--	--	1 < 2 < 3 (**)	1, 2 < 3 (**)	1 < 2, 3 (**)	1 < 2 < 3 (**)	--	1 < 2, 3 (*)
M	Teachers have qualifications in other languages	t-test	1. no 2. yes	--	--	1 < 2 (**)	1 < 2 (**)	1 < 2 (*)	1 < 2 (**)	1 < 2 (*)	--	--	1 < 2 (*)
Q	Teachers have experience teaching other languages	t-test	1. no 2. yes	1 < 2 (*)	1 < 2 (*)	--	--	1 < 2 (*)	1 < 2 (*)	1 < 2 (**)	1 < 2 (*)	1 < 2 (*)	1 < 2 (*)

R	Years of experience teaching other languages	ANOVA	1. No experience 2. < 1 yr 3. 1-5 yrs 4. 6-10 yrs 5. 11-20 yrs 6. 20+ yrs	1, 3, 2, 4 < 5, 6 (*)	1, 2, 3 < 4 < 5 < 6 (**)	--	6 < 1, 2, 4, 3 < 5 (*)	1, 2, 3 < 4, 5, 6 (*)	1, 2, 3, 6 < 4, 5 (*)	1, 2, 3 < 4, 5, 6 (*)	--	--	--

Furthermore, the higher the teachers' IM, the more importance they attach to all the relevant elements in the training of L3 teachers, that is, experience learning and using foreign languages (scale 7), knowledge of and about foreign languages (scale 8) and training in TLA (scale 10). Training in SLA does not show any significant differences depending on how multilingual teachers are, which is logical as this element is equally important for L2 and L3 teachers.

It is also interesting that more multilingual teachers (i.e., those who have learnt more languages and to a higher level of proficiency) do not appear to be more aware of how L3 learners and learning processes differ from L2 learning, as shown by the lack of significant differences in teachers' responses to scales 3 (*Advantages due to knowledge of other languages*) and 4 (*Advantages due to experience learning other languages*) depending on their level of IM.

These results may be interpreted in at least two ways. On the one hand, they could suggest that information about how L3 learners differ from monolingual students is equally accessible to all teachers regardless of how multilingual they actually are themselves. Considering the lack of specific input about TLA processes in teacher training programmes, also observed by teachers in Mady's (2012) study, teachers would develop this awareness through conscious or unconscious observation of L3 learners in the classroom.

On the other hand, subsection 6.2.1.2 above discussed the moderate awareness that participants show regarding the characteristics of L3 learners, and how this may be due to L3 teachers currently not receiving any instruction during their training about TLA, which could help develop their declarative understanding of L3 learning processes. However, teachers who are multilingual would be expected to have a more advanced procedural understanding of how L3 learning processes differ from L2 learning as a result of having gone through the L3 learning process themselves. Existing research supports this view, with teachers' beliefs

showing to be heavily based on their own learning experiences (Flores, 2001; Kagan, 1992; Richardson, 1996).

Furthermore, most of the differences between L2 and L3 learning happen at a cognitive or metacognitive level, which makes it arguably more difficult for teachers to just notice these processes unless they have been especially sensitised to remark these differences, either through specific training in TLA or thanks to their own experience of these processes. On this note, Rokeach (1968) hypothesised that underived beliefs from personal experiences, in this case of L3 learning, should lead to stronger beliefs than those constructed upon other people's experiences. Therefore, more multilingual teachers should have exhibited beliefs about L3 learning more aligned with findings in TLA. This study cannot offer any logical reason why this may not be the case, and further research is recommended to disentangle these paradoxical results.

Moving on to background variable M (*Teachers have qualifications in other languages*), it is interesting to note that teachers who have some qualifications in other languages have actually shown a significantly higher awareness of how L3 learners may differ from their monolingual counterparts, both thanks to students' knowledge of other languages (scale 3) and to their experience learning other languages (scale 4). However, higher qualifications in other languages (background variable N) are not associated with teachers' higher awareness of these differences.

These results are very important, especially in light of the discussion in the previous paragraph regarding the lack of significant differences between teachers' IM and their awareness of L3-specific learning processes. Teachers' IM was calculated including languages which had been both studied and acquired as mother tongues, with the aim to provide a comprehensive indication of how multilingual the participants are. On the other hand, the background variable *Teachers have qualifications in other languages* only includes

languages which have been formally learnt to obtain such qualifications. This could indicate that teachers' awareness of how L3 learning differs from L2 learning may be most developed through the conscious process of formally learning a language in an instruction setting, rather than by naturally acquiring it as a mother tongue. Haukås (2016) makes some remarks supporting this reasoning, with her participants arguing that, due to the early age at which the L2 is learnt in Norway, many students cannot remember how they learnt it and, therefore, approach the learning of the L3 as if it was the first foreign language. Again, these results lead back to the discussion about the advantages of the native/non-native teacher, and whether the setting in which teachers have learnt their languages impacts their understanding of the language learning processes (Medgyes, 1983, 1992, 1994; see 3.2.4 above). These findings provide an interesting and innovative insight which should be investigated further both quantitatively and qualitatively, and which can importantly inform future language policies and teacher training courses.

Besides scales 3 (*Advantages due to knowledge of other languages*) and 4 (*Advantages due to experience learning other languages*), teachers who have some qualifications in other languages are also more aware of how their own experience learning languages may be beneficial to enrich their teaching by promoting crosslinguistic connections between students' languages (scale 5) and by gaining a better understanding of the language learning processes that their students are going through (scale 6). Teachers' beliefs about scale 6 (*Understanding the language learning process*) seem to develop at the very early stages of formally studying other languages and not related to the highest level of qualifications they hold in these languages (background variable N). On the contrary, teachers' awareness of how their own learning experience can help them promote crosslinguistic connections (scale 5) seems to develop more through the extended and in-depth formal training obtained in master's and doctoral courses. This comes to support

existing conclusions by Griva and Chostelidou (2011, 2012), who found that teachers with master's degrees were more aware than teachers with lower-level qualifications of the importance of helping students develop their ability to create bridges across languages. However, these authors did not specify the subject of the qualifications. Further research would be necessary to gain a better understanding of this issue.

Moreover, teachers with some qualifications in other languages (background variable M) consider that experience learning and using foreign languages (scale 7) and training in TLA (scale 10) are more important elements in L3 teacher training courses than teachers without such qualifications. The importance that teachers attach to their own experience learning and using foreign languages (scale 7) seems to increase significantly in teachers who hold master's and doctoral degrees in languages other than the L3 (background variable N), supporting again Griva and Chostelidou's (2011, 2012) results. Interestingly, while the importance of having knowledge of and about other languages does not lead to a significant difference based on whether teachers have or do not have qualifications in other languages (background variable M), teachers who have higher qualifications in other languages also agreed more with the importance of this element in L3 teacher training.

Finally, teachers' responses to scales 1 (*To facilitate the L3 learning process*) and 2 (*To help students become effective multilingual communicators*) regarding the usefulness of incorporating students' other languages in the L3 classroom are not associated to whether they have qualifications in other languages or not, although teachers' responses to these two scales were significantly higher based on teachers' IM. Again, this could indicate that the difference is due to teachers developing different beliefs when they acquire a language informally or as a mother tongue, and when they actually learn it in an instructional setting, as also noted by Haukås' (2016) study.

According to previous studies in both language and mainstream education (Bailey et al., 1996; Brown & McGannon, 1998; Ellis, 2002, 2004, 2006, 2012, 2013; Flores, 2001; Johnson, 1994; Lortie, 1975; Lowe, 1987; Numrich, 1996; Wallace, 1991), teachers who have formally studied other languages will have developed beliefs based on the methodological principles they observed from their teachers while learning these languages. Considering the mainstream approach to second language teaching over the last decades (Conteh, Copland & Creese, 2014; Cook, 1999; Gajo, 2014; Phillipson, 1992; Widdowson, 2003), these teachers' will have typically been encouraged to avoid the use of any other languages in the target language classroom, which is likely to have an important impact on their beliefs about the use of other languages in the classroom. This is supported by several studies with teachers in bilingual and multilingual contexts (Chimbutane, 2013; De Angelis, 2011; Otwinowska, 2013; Vaish, 2012), which show that teachers in these contexts are still reluctant to exploit students' knowledge of other languages in the classroom.

Participants who have some experience teaching other languages (background variable R) also agree more positively with the same scales than teachers with a higher IM index, that is, scales 1 (*To facilitate the L3 learning process*), 2 (*To help students become effective multilingual communicators*), 5 (*Promoting crosslinguistic connections*), 6 (*Understanding the language learning process*), 7 (*Experience learning and using foreign languages*), 8 (*Knowledge of and about foreign languages*) and 10 (*Training in TLA*), and in addition scale 9 (*Training in SLA*). While teachers' awareness of scales 8, 9 and 10 do not increase with the number of years of experience teaching other languages, this is the case for scales 1, 2, 5, 6, and 7, which were also associated with teachers' higher IM. This suggests that teachers' awareness of these concepts seems to be not only heightened by teachers' higher IM, but also by teachers' increased experience teaching other languages.

These findings partially support results from previous studies. Regarding the use of other languages in the classroom, Vaish (2012) found that teachers in bilingual programmes in Singapore were more confident in using students' mother tongue in the English classroom the more teaching experience they had. Flores' (2001) teachers also reported more adequate beliefs about bilingualism issues based on their years of teaching experience. However, given that both studies take place in bilingual contexts, they only take into consideration years of experience teaching the target language. Further research should be conducted to corroborate the importance of experience teaching other languages for L3 teachers' beliefs about multilingualism.

Regardless of what the underlying reasons are to explain the existing associations between the scales and these three background variables (i.e., teachers' IM, teachers' qualifications in other languages, and teachers' experience teaching other languages), the main finding from this study is the unprecedented insight into how these three variables may affect the development of teachers' beliefs about multilingualism. The three abovementioned background variables also match seamlessly Jessner's (2008) claim that the ideal L3 teacher will need to be multilingual, an active foreign language learner and user, and a teacher of several languages. These results provide, therefore, a strong evidence-grounded basis for the development of future policies and teacher training programmes which address L3 learners' needs more efficiently.

6.4 L3 Teachers' Beliefs about Multilingualism: Summary and Discussion of Findings

The aim of this study was to assess L3 teachers' beliefs about multilingualism, that is, L3 learning, L3 teaching and the L3 teacher, and to identify the background variables which are associated with more adequate beliefs about multilingualism. The following subsections will offer an overview of the main findings and link the results of this study with previous research on teachers' beliefs. Finally, a general overview of L3 teachers' beliefs about

multilingualism is presented as well as the background variables associated with differences in these beliefs.

6.4.1 L3 teachers' beliefs about L3 learning

As discussed in 6.2.1.2 above, L3 teachers seem relatively well aware of the advantages that their L3 students may enjoy thanks to their knowledge of other languages (scale 3) and their experience learning these other languages (scale 4). Teachers' beliefs regarding scale 3 (*Advantages due to knowledge of other languages*) seemed higher when students share a common L1, and in teachers who have some qualifications in other languages, without the level of this qualification seeming to make any significant difference. Regarding scale 4 (*Advantages due to experience learning other languages*), teachers' beliefs seemed more adequate the higher the students' level in the L3, in teachers who work both in multilingual countries and in countries where most of the population has a high level of proficiency in the L2, when the teacher is a native speaker of the L3, the higher their level of proficiency in the students' L1, and the more years of experience they have teaching other languages. Similarly to scale 3 (*Advantages due to knowledge of other languages*), teachers who hold some qualifications in other languages also seemed to agree more strongly with scale 4 (*Advantages due to experience learning other languages*), although in this case the highest level of these qualifications is associated with teachers' significantly higher awareness of this scale.

Teachers' moderate awareness of students' linguistic, cognitive and metacognitive advantages when approaching the L3 learning process has been documented by previous research (De Angelis, 2011; Mady, 2012; Otwinowska, 2013; Smith, 2015). While teachers in these studies acknowledge that bilingual and multilingual students benefit from the advantage of having learnt other languages before, they exhibit very limited awareness of the actual processes involved in L3 learning.

This suggests that teachers may not just become aware of these advantages through simple observation of their L3 students. Haukås' (2016) qualitative study with L3 teachers in Norway supports this conclusion by observing that "whereas all teachers considered multilingualism to be an asset to their own language learning, they could not identify a clear advantage of multilingualism among their students – even among those students for whom French, German or Spanish was their L4 or L5" (p. 9). According to Haukås' participants, the role that students' previous linguistic knowledge and learning experiences could play in L3 learning was dependent on "learners' awareness of their own knowledge" (p. 9) and whether L3 teachers motivate them to "activate what they know from their previous experiences and apply that knowledge in further language learning" (p. 12).

6.4.2 L3 teachers' beliefs about L3 teaching

As explained in 5.1.1 above, teachers' beliefs about L3 teaching where measured in section 2 and section 4 of the questionnaire. According to the results from these two sections, teachers believe that incorporating students' other languages to facilitate L3 learning (scale 1) is significantly more useful than to help students become more effective multilingual communicators (scale 2). This difference suggests that L3 teachers focus on teaching the L3 in isolation, and only see the usefulness of other languages if this leads to facilitating the L3 learning process, and hence possibly to achieving short-term curriculum goals. However, teachers seem to be ignoring the students' need to develop their ability to communicate in multilingual contexts, in which the L3 will have to be used in combination with other languages.

Previous research on teachers' beliefs about the use of other languages in the classroom has also shown the discrepancy between the usefulness that teachers' attach to their knowledge of other languages when learning an L3, and the little use they make of students' languages in the L3 classroom. For example, Vaish' (2012) teachers believe that

their L1 was useful when learning English as a foreign language, but did not let students use their L1 in the English classroom. Similarly, De Angelis' (2011) participants consider other languages as an unnecessary source of interferences for L3 learning, and some of Otwinowska's (2013) teachers think it is unprofessional to use other languages in the classroom. Participants in Haukås' (2016) study are more keen on using students' L1 and L2 in the L3 classroom, but they are not so comfortable introducing other students' languages, especially if they do not know these languages themselves.

In contrast with scales 1 and 2 regarding the use of other foreign languages in the classroom, teachers attach equal importance to the role of their own language learning experience to promote crosslinguistic connections between their students' languages (scale 5) and to understand better the language learning process (scale 6). Teachers' more adequate beliefs about the role of their own language learning experience for their teaching (scale 5 and 6) seemed to be associated with teachers' being native speakers of the students' L1, teachers' higher level of IM, teachers who have qualifications in other languages and experience teaching languages other than the L3, and the years of experience teaching these other languages.

These results corroborate existing studies. As noted by Ellis (2004, 2006, 2012, 2013), teachers who are more multilingual and have more extensive experience learning and using foreign languages, will be better positioned to help their students in the process of becoming multilingual. In our study, this is demonstrated by the relationship between teachers' beliefs and background variables such as their level of IM, and their qualifications and experience teaching other languages. Haukås' (2016) teachers also recognised the importance of their own multilingualism for L3 teaching, providing further support for the results in this study.

Teachers' stronger beliefs about the four scales measuring L3 teaching (scales 1, 2, 5, and 6) are associated only with teachers' being native speakers of the students' L1, teachers'

higher level of individual multilingualism (IM), teachers who have some experience teaching languages other than the L3, and the number of years teaching these languages. In view of these results, and particularly the similar association with the four scales of teachers' being native speakers of the students' L1 and teachers being multilingual, it is difficult to know whether teachers are using the students' L1 as the main source for crosslinguistic connections or whether they are actually exploiting their students' full linguistic repertoires. Haukås' (2016) findings suggest that L3 teachers may tend to rely mainly on their L1 and L2, and feel uncomfortable referring to languages their students may know but with which they are not familiar themselves.

L3 teachers are relatively aware of how both their students' and their own knowledge of other languages and experience of learning and using these languages can lead to more efficient teaching of the L3. Again, this supports the view of Haukås' (2016) L3 teachers, who seemed convinced of the completely different processes involved in L3 learning and teaching. However, Haukås' teachers believed that the reason for this difference was the early age at which students had learnt the L2, and the fact that the L3 was being learnt when students were older and more cognitively mature. Considering the importance in L3 teaching of linking previous knowledge and experiences to the L3 learning process, it is worth noting the observation made by one of Haukås' teachers regarding how more collaboration among language teachers "would make it much easier to know which knowledge we can activate and draw on in our subjects" (Vilde, cited in Haukås, 2016, p. 11).

6.4.3 L3 teachers' beliefs about the L3 teacher

As explained in 5.1.1 above, L3 teachers' beliefs about the L3 teacher were measured by scales 7-10 in section 5 of the questionnaire. L3 teachers agreed most strongly on the importance of having personal experience learning and using foreign languages (scale 7), followed by the importance they attach to training in SLA (scale 9) and knowledge of and

about foreign languages (scale 8), with training in TLA (scale 10) being considered as the least important of all the elements. These results regarding the importance that teachers attach to TLA are in contrast with Mady's (2012) findings. In her study in Canada, teachers regretted the lack of appropriate training on L3 learning and teaching, and felt unprepared to adequately address the needs of bilingual and multilingual learners.

The only background variable which seems to be associated with teachers' higher beliefs about the four scales regarding the recommended training of the L3 teacher is whether teachers have some experience teaching languages other than the L3. Only scale 7 (*Experience learning and using foreign languages*) seems to be affected by the years of experience teaching these languages, which suggests that even a very short experience of this kind may lead to a significantly higher awareness of the recommended profile of L3 teachers.

Teachers who are more multilingual also seem more aware of the importance of scales 7 (*Experience learning and using foreign languages*), 8 (*Knowledge of and about foreign languages*) and 10 (*Training in TLA*). The apparent existence of a low threshold level of IM beyond which teachers would be similarly aware of the importance of these elements could suggest that even knowing a small number of languages to a relatively low level of proficiency could already lead to more adequate beliefs about the recommended profile of L3 teachers. Further research should be conducted to explore these hypotheses.

6.4.4 L3 teachers' beliefs about multilingualism: final overview

The aim of this final subsection is to tie together all the findings from this study, and to offer an overview of (1) L3 teachers' beliefs about multilingualism across Europe, and (2) the background variables associated with differences in these beliefs. This answers the two research questions and therefore fulfils the two research aims established at the beginning.

The results from this study suggest that L3 teachers hold only moderately accurate beliefs about L3 learning processes, and they assign equal weight to their students'

advantages from knowing other languages and from having experience learning these languages. Teacher's awareness of L3 learning processes are the farthest away from findings in TLA research, if compared with their beliefs about L3 teaching and the L3 teacher. These results support previous studies, which found that even if teachers seem aware of the advantages of being bilingual (De Angelis, 2011; Mady, 2012; Otwinowska, 2013), they lack an accurate understanding of the actual processes involved in L3 learning (Smith, 2015). These findings are even more interesting in the context of this study, where most participants were multilingual themselves and 85.8% reported having learnt between two and five foreign languages.

Teachers' beliefs about L3 teaching are more in line with current research findings and recommendations than those about L3 learning. Teachers believe strongly that their own experience learning languages can help them address the needs of L3 learners, both by using their knowledge of other languages to promote crosslinguistic connections and to understand better the learning process that their students are going through. However, despite these beliefs, L3 teachers are only relatively keen on using other languages in the L3 classroom to facilitate the L3 learning process, and to a significantly lesser extent when the goal is to help their students become better multilingual communicators. These results support previous findings emphasising the discrepancy between teachers' awareness of the importance of their own experience learning languages (Bailey et al., 1996; Ellis, 2004, 2006, 2012, 2013; Flores, 2001; Haukås, 2016; Johnson, 1994; Lortie, 1975; Numrich, 1996; Wallace, 1991) and their reluctance to exploit students' other languages in the L3 classroom (De Angelis, 2011; Haukås, 2016; Otwinowska, 2013; Vaish, 2012).

Participants also showed partially accurate beliefs about what constitutes the preferred profile for L3 teachers. While they recognised that experience of learning and using languages and knowledge of and about languages are key elements within this profile, they

assigned significantly more importance to having training in SLA than in TLA. In contrast with Mady's (2012) participants in Canada, who regretted the lack of training specifically on TLA, the results from this study suggest that L3 teachers across Europe are unaware of how training on TLA could help them address better the needs of their multilingual students. These findings support previous calls highlighting the need for L3 teachers to receive specific training on the processes and techniques most adequate for L3 learning and teaching (Beacco & Byram, 2007; Candelier & Castellotti, 2013; Cavalli, 2005; Conteh, Copland & Creese, 2014; De Angelis, 2011; Jessner, 2008).

Regarding the background variables explored, only five of them appear to be associated with more accurate beliefs about multilingualism as a whole: students sharing a common L1, teachers' higher individual multilingualism (IM, computed as a compound of the number of languages and the level of proficiency in each of these languages), having some qualifications in languages other than the target language, having some experience teaching languages other than the target language, and the years of experience teaching these other languages.. While it is difficult to explain why teachers whose students' share a common L1 may have more accurate beliefs about multilingualism, the relevance of the three other background variables can be easily linked back to Jessner's (2008) recommended profile for L3 teachers. Teachers who are multilingual, have experience of formally learning foreign languages and have experience teaching several languages do not only match seamlessly Jessner's recommended profile for L3 teachers, but also have the most adequate beliefs about L3 learning and teaching. These results provide the first empirical evidence supporting the relevance of Jessner's L3 teacher profile, and open new research paths to investigate how these three background variables might on their own be able to shape most of teachers' beliefs about multilingualism.

7. Implications for Language Pedagogy and Policy

Europe is a linguistically diverse territory where hundreds of official, co-official, regional and migrant languages coexist and interact on a daily basis (European Union, online). The European Union (EU) has expressed the wish for European citizens to become more multilingual (Council of the European Union, 2002), and they have made significant efforts to improve language competences across the EU (e.g., ECML, online; European Commission, 2012b). However, the focus of these efforts remains still greatly on the learning of individual languages, in isolation from the other languages that students know or are likely to encounter during their lifetime.

This study argues that, if the goal is to make European citizens more multilingual, language teaching will need to adopt a more multilingual approach to language learning and teaching, where the learning and use of the new language is integrated into students' existing knowledge of other languages and experiences learning and using these languages. This shift in language teaching will in turn lead to more efficient learning of multiple languages, as proved by several studies (Candelier et al., 2007; Cavalli, 1994, 2005; Jessner, 2008; Wokusch, 2008). While the importance of these pluralistic teaching approaches (Candelier et al., 2012) is being already noticed by certain governments and educational institutions (e.g., ECML, online; European Commission, 2015), the issue of how language teachers can prepare to implement this type of teaching approach has hardly been addressed.

Considering that background variables regarding the L3 students and the L3 teaching context are difficult to change (e.g., students' age or whether the country is multilingual), the main implications from this study focus on the linguistic and professional profile of the L3 teacher and the elements within this profile which appear to be associated with more adequate beliefs about multilingualism. Based on the findings discussed in 6.4 above, several

recommendations are put forward regarding (1) policies for the recruitment of L3 teachers, and (2) L3 teacher training programmes.

7.1 Teacher Recruitment Policies

The results from this study could be key for the recruitment of both L3 teacher trainees and L3 teachers. As discussed in 6.4 above, teachers who are more multilingual, have qualifications in other languages and have experience teaching languages other than the L3 seem to have beliefs which are more in line with TLA research findings about L3 learning, L3 teaching and the L3 teacher.

According to Rokeach's (1968) and Nespor's (1987) theoretical conceptualisations of beliefs, teachers who have personal experience of learning an L3 will have vivid memories about this learning process and the teaching practices that worked most efficiently. These memories will lead to stronger beliefs about L3 learning and teaching (i.e., what Rokeach qualified as *underived beliefs* developed thanks to one's own experiences), and research has shown that beliefs supported on such memories will have a higher impact on teaching practices than any other factor, including teacher education (Bailey et al., 1996; Borg, 2005; Flores, 2001; Johnson, 1994; Kagan, 1992; Lortie, 1975; MacDonald, Badger & White, 2001; Numrich, 1996; Pajares, 1992; Peacock, 2001; Richardson, 1996; Urmston, 2003).

Considering the limited impact that teacher education appears to have on teachers' beliefs, policies for the recruitment of prospective L3 teacher should consider carefully how their trainees' previous language learning experiences may have shaped their beliefs about multilingualism and L3 learning. These policies should, therefore, prioritise candidates with knowledge of other languages, particularly if these were learnt through formal instruction. According to the results in this study, these trainees will already have more adequate beliefs about multilingualism, and find it easier to incorporate new concepts about L3 learning and teaching to their existing belief systems (Piaget, 1952), which will in turn make them more

likely to adopt an L3 teaching approach in line with current recommendations in TLA (e.g., Neuner, 2004).

Regarding the recruitment of L3 teachers, policies should incorporate as a requirement to have experience learning foreign languages, preferably in an instructional setting, and give priority to individuals who have experience teaching several languages besides the target language. Even if it is unlikely that any candidates will have received specialised training in TLA, the beliefs that these teachers will have developed throughout their personal experiences learning, using and teaching other languages will make them more likely to approach the teaching of the L3 in a way which will lead to more successful L3 learning. As Conteh, Copland and Creese (2014) recognised, multilingual teachers have accumulated unique experiences of learning and using languages "and this is directly relevant both to how they teach and how they view themselves as teachers" (p.159). Ellis (2012) has previously made similar recommendations for the recruitment of English as a Second Language (ESOL) teachers, suggesting that schools should employ teachers with multilingual skills, and teacher training programmes require a minimum level of proficiency in a foreign language as an entry requirement.

7.2 Teacher Training Programmes

Supporting previous claims made by other authors (Beacco & Byram, 2007; Candelier & Castellotti, 2013; Cavalli, 2005; Conteh, Copland & Creese, 2014; De Angelis, 2011; Jessner, 2008), this study questions the relevance of current L3 teacher training programmes, both for the initial training of teachers and for professional development purposes. Although several studies have provided evidence of the little effect that these programmes seem to have on teachers' beliefs (Johnson, 1994; Numrich, 1996; Peacock, 2001; Pennington & Urmston, 1998; Urmston, 2003), Cabaroglu and Roberts (2000) have suggested that teacher education may be able to change the structure of the belief system rather than the beliefs themselves. By

modifying the importance of certain beliefs within the system, teacher training programmes could strengthen those beliefs that matter the most and that should ideally be triggered in the practice.

In initial teacher training programmes, candidates will have ideally been selected not only because of their personal and academic skills, but also because of their knowledge of other languages and experience learning, using and, in some cases, teaching other languages. During their initial training, prospective L3 teachers should be introduced to the main concepts and theories in TLA, and encouraged to reflect on the differences that they perceive between learning and teaching an L2 and an L3. In so doing, prospective L3 teachers will have to be encouraged to draw on their own experiences of learning (and, if relevant, of teaching) other languages, helping them relate TLA theory to their own reality and practice.

The results from this study suggest that L3 teachers may not be able to deduct the differences between L2 and L3 learning by observing their students. On the contrary, it seems that it is teachers' experience learning foreign languages in an instructional context which raises their awareness of these differences. Teacher training programmes should, therefore, provide not only structured modules on TLA, but also the opportunity for trainees to discuss their own perceptions and beliefs about L3 learning and teaching processes, openly acknowledging the aspects in which their beliefs seem to concur or deviate from TLA theories. In turn, this enhanced awareness of their own language learning processes will enable teachers to relate better to the learning processes that their students are going through, helping them become also more reflective and strategic L3 learners. L3 teachers who have experienced as students different L3 teaching approaches will have also presumably developed stronger beliefs about what helps and what hinders L3 learning, and may be more likely to adopt a similar L3 teaching approach to the one they experienced themselves as learners.

If L3 teachers and/or teacher trainees do not have the experience of learning and using other foreign languages, both initial and professional development training programmes should require participants to gain this experience. Several programmes for the training of ESOL teachers (Bailey et al., 1996; Bell, 1995; Birch, 1992; Flowerdew, 1998; Lowe, 1987; McDonough, 2002) included what Ellis (2006) denominates *structured language learning experience* or SLLE, that is, a short language courses aimed at sensitising future language teachers of the challenges and difficulties involved in the learning process. While these short language courses and sessions proved extremely valuable for teachers to gain a better understanding of the processes involved in language learning, Ellis notes how their ad-hoc and non-committal nature made them less enlightening than genuine experience learning languages:

> They [SLLE] tend to be short, based on formal class teaching at beginner level, conducted with purposes other than actually learning an L2, and posing little threat to the identity, academic success, or material advancement of the learner. They do not provoke insights into higher-level language learning, into the development of bilingualism in its many forms, into the complex relationship between language and identity, into successful language learning beyond a basic level, or into complex linguistic and sociolinguistic comparisons. Such SLLEs are pale imitations of the complexity and richness of the real language learning experiences that many teachers bring to their work (pp. 2-3).

In order to avoid encountering similar limitations, L3 teacher training programmes should encourage teachers and trainees who do not already have any language learning experience to genuinely learn other languages. This could be done, for example, by incorporating official language courses as a compulsory element in L3 teacher training and

requiring trainees and teachers to attain a minimum level of proficiency in these languages in order to obtain or renew their teaching credentials.

L3 teachers and trainees could also be encouraged to obtain a formal qualification in an additional foreign language as part of their initial training or professional development. Regardless of how basic this qualification is, formally studying a language towards such a qualification seems to be associated with beliefs about multilingualism more aligned to TLA findings. In contrast with Ellis' (2006) conclusions about the SLLEs, obtaining a qualification in a given language may make the experience more realistic, since teachers will see learning the language as a goal in itself, rather than as a way to improve their teaching skills.

The minimum level of proficiency that L3 teachers and trainees should achieve in each known language is difficult to establish. Instead of looking at individual languages, this study adopted a holistic view and considered teachers' level of individual multilingualism as a whole, that is, combining teachers' level in all the languages they know, including the mother tongue(s) and the target language that will be taught as an L3. Results from this study suggest that, in order to develop more accurate beliefs regarding multilingualism, it may be enough for teachers to know either two languages at a high level of proficiency and a third one at a beginner level, or two foreign languages at a fairly high level of proficiency besides the mother tongue.

Besides general experience learning languages, teacher training programmes may want to include also some modules or sessions where L3 teachers are taught a language they have never learnt before following the didactic principles of L3 teaching (Neuner, 2004). According to Posner, Strike, Hewson and Gertzog (1982) and Guskey (1986), new beliefs are only kept after they have been tested and proved effective, and teachers in professional development programmes only seem to change their beliefs if the new techniques are tried out and found useful. By making L3 teachers experience themselves how L3 didactics

facilitates learning the new L3, these sessions could strengthen teachers' beliefs about the usefulness of this teaching approach and make them more likely to use it in their own practice.

Teachers' awareness about some of the aspects of multilingualism also seems to increase with the number of years of experience teaching languages other than the L3. However, it seems that even a minimal amount of experience teaching these languages can already lead to clear differences in the way teachers perceive the L3 learning and teaching processes. Therefore, teacher training courses should not only include language courses for teachers who do not have already this knowledge and experience, but also make it compulsory for L3 teacher trainees to gain some practice teaching languages other than the L3.

Finally, it is important to note that qualifications in education or SLA and longer experience teaching the target language do not seem to be associated with more adequate beliefs about most of the aspects of multilingualism included in this study. Teacher training programmes should, therefore, not consider teachers' individual multilingualism or experience teaching other languages as replaceable by more advanced training in SLA and education, or by more years of experience teaching the target languages.

8. Conclusions

8.1 Summary

This study started by identifying a mismatch between how L3s are learnt across Europe and how they are taught. Students generally know or have learnt English for a number of years before they start learning an additional language, which makes this additional language by definition the students' L3 (Cenoz, 2003). However, there hardly exist any teacher training programmes which acknowledge the differences between L2 and L3 learning, or that provide language teachers with specific input on how to address multilingualism and TLA issues. As a consequence, languages that are currently being learnt as L3s will be taught following the didactic recommendations for L2s by teachers who have only received training on L2 teaching.

The aim of this study was to gain an overview of the beliefs that L3 teachers across Europe hold about these three key elements in multilingualism and L3 education, that is, L3 learning, L3 teaching and the L3 teacher, and to identify background variables which could be associated with differences in these beliefs. Given the exploratory nature of the study and the absence of previous research investigating this specific issue, the current study included 19 such variables regarding the L3 students, the L3 teaching context and the L3 teacher.

The data was collected through an online questionnaire which was distributed by email to individual language teachers as well as schools, teacher associations and cultural institutes, encouraging therefore snowball sampling. The questionnaire received 984 valid responses from teachers working in 34 European countries across all education levels. The target population were teachers of Spanish, French and German as foreign languages, which are the three most widely-studied foreign languages across Europe after English (European Commission, 2012a; Eurydice, 2012).

The results show that, despite participants being majoritarily multilingual, L3 teachers hold only partially accurate beliefs about L3 learning processes. These findings support previous studies, which highlighted teacher's lack of understanding of the actual processes involved in L3 learning (De Angelis, 2011; Mady, 2012; Otwinowska, 2013; Smith, 2015). Regarding L3 teaching, teachers agree strongly on the importance of their own experience learning languages to address the needs of L3 learners, but are only relatively keen on incorporating students' other languages to the L3 classroom. Again, these results are in line with previous findings, which already identified the discrepancy between the usefulness that teachers' attach to their own language learning experiences (Bailey et al., 1996; Ellis, 2004, 2006, 2012, 2013; Flores, 2001; Haukås, 2016; Johnson, 1994; Lortie, 1975; Numrich, 1996; Wallace, 1991) and their reluctance to use other languages in the L3 classroom (De Angelis, 2011; Haukås, 2016; Otwinowska, 2013; Vaish, 2012). Regarding the profile of the L3 teacher, participants also showed relatively accurate beliefs, agreeing on the importance for L3 teachers to have knowledge of and about languages, and experience learning and using languages, but not recognising the need for specific training on TLA. Teachers' lack of awareness about the importance of TLA training highlights the need for L3 teacher education to include specialised modules on multilingualism and TLA, as suggested in the implications of this study and already postulated by many authors (Beacco & Byram, 2007; Candelier & Castellotti, 2013; Cavalli, 2005; Conteh, Copland & Creese, 2014; De Angelis, 2011; Jessner, 2008).

Regarding the background variables investigated, only five of them seem to be associated with more accurate beliefs about multilingualism: students sharing a common L1, teachers' higher individual multilingualism (IM, computed as a compound of the number of languages and the level of proficiency in each of these languages), having some qualifications in languages other than the target language, having some experience teaching languages other

than the target language, and the length of the experience teaching these other languages. The last four background variables, which are all related to the linguistic and professional profile of L3 teachers, can be easily mapped to Jessner's (2008) description of the ideal L3 teacher. Therefore, this study provides for the first time empirical evidence to support Jessner's claim, and highlight the importance for L3 teachers to be multilingual, have experience of formally learning foreign languages, and have experience teaching several languages.

On the basis of these results, the current study has put forward several recommendations for (1) the recruitment of teachers and teacher trainees, and (2) the design of teacher training programmes. The first set of recommendations argues that, according to the findings in this study, teachers who are more multilingual, have some qualifications in languages other than the target language, and have some experience teaching other languages will hold more accurate beliefs about multilingualism. Based on Piaget's (1952) theory of adaptation, these teachers will be more likely to understand, assimilate and embrace new findings in TLA, and therefore also to adopt pedagogical approaches more appropriate for L3 learning.

The second set of recommendations regards teacher training programmes, and argues that future and current L3 teachers need to be encouraged to learn about the pedagogical implications of multilingualism. Namely, programmes aimed at the initial training or continuous professional development of L3 teachers should provide detailed courses on L3 learning and teaching processes and techniques, enabling teachers to understand and address more efficiently the specific learning needs of their bilingual and multilingual students (Candelier & Castellotti, 2013; Cavalli, 2005; Conteh, Copland & Creese, 2014; De Angelis, 2011; Jessner, 2008).

8.2 Limitations of the Study

Besides the common limitations of using a quantitative questionnaire as the main method of data collection (Dörnyei, 2007, 2010), this study counts on several additional limitations. First, the data was collected by snowball sampling, that is, by contacting potential participants and asking them to fill in the questionnaire, and to forward it to other potential participants. The sample was therefore self-selected, which means that participants in this study had possibly a prior interest in the topic of the questionnaire. As a consequence, the results from this study are likely to be over-represented and should not be considered as fully representative in the mathematical sense of the whole population of L3 teachers in Europe. Furthermore, the study focuses on the beliefs of L3 teachers, but did not include a control group of L2 teachers to confirm whether the results were characteristic just of L3 teachers or rather applied to other language teachers as well.

Another issue regarding the sample in this study is the assumption that teachers are actually aware of the number of languages that their students know, and can confirm that the target language is being actually learnt as an L3. Even if teachers are aware of the languages known by their students, it was not feasible within the scope of this study to collect detailed information about the linguistic backgrounds and profiles of all the students being taught by the 984 participants. This would have allowed confirming the individual multilingualism of each of the learners, and led to a much more detailed analysis of the results. The patterns observed in this study need to be, therefore, considered as an indication only and as a basis for further research.

Participants were also asked to self-report their own levels of proficiency in each language. Although this is common practice in SLA research (e.g., Bachman & Palmar, 1985; Ellis, 2004, 2006, 2012, 2013; Marian, Blumenfeld & Kaushanskaya, 2007), their answers should only be considered as subjective approximations. Further research could include

formally testing teachers' level of proficiency in each of the languages they know, although the resources needed for such investigation were beyond the possibilities of this study.

Additionally, the separation between multilingual and non-multilingual countries may not be as clear-cut as initially suggested. Although the whole country may not be multilingual, countries such as Spain have several bilingual regions where co-official languages are spoken by the majority of the population alongside Spanish. According to Lasagabaster and Huguet (2007), around 40% of the population in Spain live in bilingual regions. Many other countries in Europe have regional or minority languages which, although they may not have official status, are active languages spoken by a significant percentage of the population in the country. Examples of this are Italy, where a wide range of regional dialects cohabit with Italian, the Netherlands, where Frisian is spoken in the region of Friesland, and France, where regional languages such as Corsican, Breton or Creole are spoken by varying numbers of speakers alongside French. Additionally, an increasing number of countries also have large immigrant communities who speak languages different from the official language(s), adding even more diversity to the European linguistic landscape. This study did not control for such localised cases and included all such countries within the non-multilingual category, which may have introduced some bias in the results.

As regards reliability, the validation of the questionnaire led one of the scales (scale 5) being measured by only three items. Although more items would have been desirable, it was decided to have a shorter but more reliable scale, rather than a longer but less reliable one, since reliability was considered more important than scale length. Eliminating this scale would have also undermined the validity of study, since it would not have been possible to investigate one of the main constructs within L3 teaching, and therefore jeopardised the aim to provide an overview of L3 teachers' beliefs about multilingualism as a whole. However,

this is a possible shortcoming of the dissertation which will need to be remedied in future research.

Finally, the aim of the questionnaire was to measure teachers' beliefs about three specific elements of multilingualism, which constitutes a precise subconstruct within teachers' general belief systems. As Borg (2006, 2015) and Pajares (1992) noted, teachers' beliefs are an incredibly complex field, and are far too often studied in isolation from the belief system within which they are embedded and the contextual features associated with these beliefs. He suggests that research design usually has to compromise between obtaining an overview of the beliefs that teachers hold about a more general subconstruct, and conducting a deeper investigation of certain beliefs within the belief system, including their structure, centrality, strength and connectedness to other beliefs in the system.

The current study aligns with the first of the options that Borg (2006, 2015) and Pajares (1992) suggest, providing a general overview of L3 teachers' beliefs and exploring their relationship to a large number of contextual features. According to these authors, this type of beliefs overview can be extremely useful to detect conflicts and areas which may require attention. TALIS, the well-known international survey on teachers' beliefs (OECD, 2009) follows this same model, measuring beliefs and attitudes against a battery of background variables regarding different aspects of the national educational systems. However useful such an overview may be, this study cannot provide any insights into teachers' actual practices, or the relationship between their measured beliefs and their attitudes to any other constructs. The study did not collect any qualitative data either, which could have helped explain some of the inconsistencies in the results or shed light into the abovementioned issues.

8.3 Suggestions for Further Research

Further qualitative research would be very helpful to understand better the results from this study. In several instances, results showed patterns for which there does not seem to exist a logical explanation. Purposively selecting a sub-sample of participants based on their responses to certain scales and/or their personal and professional profile could help gain a better understanding of the reasons underlying L3 teachers' beliefs about certain aspects of multilingualism. Considering the diversity of the participants and their very different geographical and socio-economic contexts across Europe, a qualitative follow-up could also help identify new patterns and variables which may be responsible for teachers' beliefs about multilingualism.

Further research could also focus on investigating the relationship between teachers' reported beliefs and their practice in the L3 classroom. This type of research approach would allow establishing hypothetical beliefs structures, and discover how teachers' beliefs about multilingualism may interact with their beliefs about other educational and non-educational constructs, such as the role of languages or their own identity as multilingual individuals.

In this vein, further research could also help assess the impact of training in TLA on L3 teachers' beliefs and practices. It would be especially interesting to investigate whether this type of training can actually lead to belief change, and whether teachers' individual multilingualism and experience teaching other languages does actually lead to easier belief change, as suggested by the conclusions of this study.

Moreover, there currently exists very little research investigating the relationship between teachers' beliefs about multilingualism and any background variables. Past works have focused only on a limited number of background variables, which have been investigated both inconsistently and unreliably (De Angelis, 2011; Flores, 2001; Griva & Chostelidou, 2011; Lim & Torr, 2007; Mady, 2012; Otwinowska, 2013; Vaish, 2012). The

current study provides a ground-breaking overview of the background variables which may be associated with teachers' beliefs about the different constructs in multilingualism. However, extensive research must still be conducted to confirm these associations and to explore the nature of these relationships, both in the same and in other social and geographic contexts. These results would provide a solid basis to understand the external factors influencing and shaping teachers' beliefs, and allow devising more effective policies and initiatives for the promotion of multilingualism across Europe and beyond.

Finally, it would also be important to widen the scope of the study even further and assess the beliefs about multilingualism held by L2 teachers and teachers of other subjects. Research would be needed to investigate whether similar patterns are observed between these teachers' beliefs and their practice, and whether similar TLA training could lead to belief change in the same way than hypothesised for L3 teachers. The recent migration crisis in Europe has highlighted the need for more integrative approaches to language learning and teaching in Europe (European Commission, 2015), and research on teachers' beliefs about multilingualism issues could be an effective approach to determining the gap that needs to be bridged and the most appropriate measures to bring teachers' beliefs in line with current pedagogical recommendations.

Taking an even wider approach, research could be conducted to assess the beliefs of other stakeholders in education, such as parents or heads of schools. Education takes place within wider political, social and economic contexts, and the beliefs held and disseminated by such social actors may also have a strong influence on the achievement of language learners. In this sense, L3 teachers may have a unique role in the change of beliefs and attitudes that the wider society has towards multilingualism. L3 teachers can use their privileged and legitimate position as multilingual individuals to promote more accurate beliefs about multiple language learning and teaching, not only among students but also among teachers of

other subjects, parents, heads of schools, policy-makers and the media. The gradual replacement of common misconceptions about language learning with more positive and accurate beliefs about the nature of becoming and living as a multilingual person would lead to sustainable change, and eventually also to more multilingual societies.

References

Abutalebi, J., & Green, D. (2008). Control mechanisms in bilingual language production: Neural evidence from language switching studies. *Language and Cognitive Processes, 23*(4), 557–582.

Abutalebi, J., Della Rosa, P., Green, D., Hernandez, M., Scifo, P., Keim, R., & Costa, A. (2012). Bilingualism tunes the anterior cingulate cortex for conflict monitoring. *Cerebral Cortex, 22*(9), 2076–2086.

Ahukanna, J. G. W., Lund, N. J., & Gentile, R. J. (1981). Inter- and intra-lingual interference effects in learning a third language. *Modern Language Journal 65*, 281–287.

Albert, M. L., & Obler, L. K. (1978). *The Bilingual Brain: Neuropsychological and Neurolinguistic Aspects of Bilingualism*. New York NY: Academic Press.

Aronin, L., & Hufeisen, B. (2009). *The Exploration of Multilingualism*. Amsterdam/Philadelphia: John Benjamins.

Aronin, L., & Ó Laoire M. (2004). Exploring multilingualism in cultural contexts: towards a notion of multilinguality. In C. Hoffmann & J. Ytsma (Eds.). *Trilingualism in Family, School and Community* (pp. 11–29). Clevedon: Multilingual Matters.

Aronin, L., & Ó Laoire, M. (2003). Multilingual students' awareness of their language teacher's other languages. *Language Awareness, 12*(3-4), 204–219.

Aronin, L., & Toubkin, L. (2002). Language interference and language learning techniques transfer in L2 and L3 immersion programmes. *International Journal of Bilingual Education and Bilingualism, 5*(5), 267–278.

Bachman, L., & Palmar, A. (1985). *Basic Concerns in Language Test Validation*. Reading, MA: Addison Wesley.

Bailey, K. M., Bergthold, B., Braunstein, B., Jagodzinski Fleischman, N., Holbrook, M. P., Tuman, J., & Zambo, L. J. (1996). *The Language Learners' Autobiography:*

Examining the "Apprenticeship of Observation". In D. Freeman & J. C. Richards (Eds.), Teacher learning in language teaching (pp. 11–29). New York, NY: Cambridge University Press.

Bailey, K., Curtis, A., & Nunan, D. (2001). *Pursuing Professional Development – The Self as Source*. Boston, MA: Heinle and Heinle.

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall.

Basturkmen, H., Loewen, S., & Ellis, R. (2004). Teachers' stated beliefs about incidental focus on form and their classroom practices. *Applied Linguistics, 25*(2), 243–272.

Beacco, J-C., & Byram, M. (2007). *Guide pour l'élaboration des politiques linguistiques éducatives en Europe. De la diversité linguistique à l'éducation plurilingüe* [Guide for the development of language education policies in Europe. From linguistic diversity to plurilingual education]. Strasbourg: Conseil de l'Europe.

Bell, J. S. (1995). The relationship between L1 and L2 literacy: Some complicating factors. *TESOL Quarterly 29*(4), 687–704.

Ben-Zeev, S. (1977). Mechanisms by which childhood bilingualism affects understanding of language and cognitive structures. In P. Hornby (Ed.), *Bilingualism: Psychological, Social, and Educational Implications* (pp. 29–55). New York, NY: Academic Press.

Bialystok, E. (2015). Bilingualism and the development of executive function: The role of attention. *Child Development Perspectives, 9*(2), 117–121.

Bialystok, E., & Hakuta, K. (1994). *In Other Words: The Science and Psychology of Second-Language Acquisition*. New York, NY: Basic Books.

Bialystok, E., Craik, F., & Luk, G. (2008). Lexical access in bilinguals: Effects of vocabulary size and executive control. *Journal of Neurolinguistics, 21*(6), 522–538. http://dx.doi.org/10.1016/j.jneuroling.2007.07.001

Bialystok, E., Craik, F., & Luk, G. (2012). Bilingualism: consequences for mind and brain. *Trends in Cognitive Sciences, 16*(4), 240–250. http://dx.doi.org/10.1016/j.tics.2012.03.001

Birch, G. (1992). Language learning case study approach to second language teacher education. In J. Flowerdew, M. Brock & S. Hsia (Eds.), *Perspectives on Second Language Teacher Education* (pp. 283–294). Hong Kong: City University of Hong Kong.

Bobanović, M., & Kostić- Bobanović, M. (2011). A comparative study of language learning strategies used by monolingual and bilingual EFL learners. *Metodički obzori, 6*(3), 41–53.

Borg, M. (2005). A case study of the development in pedagogic thinking of a pre-service teacher. *TESL-EJ, 9*, 1–30.

Borg, S. (1998). Teachers' pedagogical systems and grammar teaching. *TESOL Quarterly, 32* (1), 9–38.

Borg, S. (2006). *Teacher Cognition and Language Education: Research and Practice.* London: Continuum.

Borg, S. (2009). Language teacher cognition. In A. Burns & J. C. Richards (Eds.), *The Cambridge Guide to Second Language Teacher Education* (pp. 163–171). Cambridge: Cambridge University Press.

Borg, S. (2015). Researching teacher beliefs. In B. Paltridge & A. Phakiti (Eds.), *Research methods in applied linguistics: A practical resource* (pp. 487–504). London: Bloomsbury.

Bourguignon, C., & Candelier, M. (1988). La place de la langue maternelle dans la construction par 1 élève des notions grammaticales requises pour l'apprentissage d'une langue étrangère [The place of the mother tongue in the construction of

grammatical notions by one student for the learning of a foreign language]. *Les Langues Modernes, 2,* 19–34.

Bourguignon, Ch., & Dabene, L. (1982). Le métalangage, un point de rencontre obligé entre professeurs de langue maternelle et de langue étrangère [Metalanguage, a compulsory meeting point between mother tongue and foreign language teachers]. *Le Français dans le Monde*, 245–250.

Brohy, C. (2008). Didactique intégrée des langues: évolution et définitions [Integrated language didactics: evolution and definitions]. *Babylonia*, *1*, 9–11.

Brophy, J., & Good, T. (1974). *Teacher-student Relationships: Causes and Consequences*. New York, NY: Holt, Rinehart and Winston.

Brown, J., & McGannon, J. (1998). *What do I know about language learning? The story of the beginning teacher*. Retrieved from http://www.cltr.uq.edu.au/alsaa/proceed/bro-mcgan.html

Brumfit, C.J. (2001). *Individual Freedom in Language Teaching: Helping Learners to Develop a Dialect of their Own*. Oxford: Oxford University Press.

Burns, A. (1992). Teacher beliefs and their influence on classroom practice. *Prospect, 7*(3), 56–66.

Burns, A. (1996). Starting all over again: From teaching adults to teaching beginners. In D. Freeman & J. C. Richards (Eds.), *Teacher Learning in Language Teaching* (pp. 154–177). Cambridge: Cambridge University Press.

Cabaroglu, N., & Roberts, J. (2000). Development in student teachers' pre-existing beliefs during a 1-year PGCE programme. *System, 28*(3), 387–402.

Calderhead, J., & Robson, M. (1991). Images of teaching: Student teachers' early conceptions of classroom practice. *Teaching & Teacher Education, 7*, 1–8.

Canagarajah, S. (2013). *Translingual Practice: Global Englishes and Cosmopolitan Relations*. New York, NY: Routledge.

Candelier, M., & Castellotti, V. (2013). Didactique(s) du/des plurilinguisme(s) [Didactics of plurilingualism]. In Simonin, J. & S. Wharton (Eds.), *Sociolinguistique des langues en contact, modèles, théories. Dictionnaire encyclopédique des termes et concepts* [Sociolinguistics of languages in contact, models, theories. Enciclopedic dictionary of terms and concepts] (pp. 293–318). Lyon: ENS-LSH éditions.

Candelier, M., Camilleri-Grima, A., Castellotti, V., Pietro J-F., Lőrincz, I., Meißner, F-J., Noguerol, A., & Schröder-Sura, A. (2012). *FREPA – A Framework of Reference for Pluralistic Approaches to Languages and Cultures Competences and Resources*. Strasbourg: Council of Europe.

Candelier, M., Camilleri-Grima, A., Castellotti, V., Pietro, J-F., Lörincz, I., Meissner, F-J., Schröder-Sura, A., & Noguerol, A. (2007). *A travers les langues et les cultures - CARAP: Cadre de Référence pour les Approches Plurielles des Langues et des Cultures*. Strasbourg: Council of Europe.

Carroll, J., & Sapon, S. (1959). M*odern Language Aptitude Test – Form A*. New York, NY: Psychological Corporation.

Caspari, D. (2003). *Fremdsprachenlehrerinnen und Fremdsprachenlehrer. Studien zu ihrem beruflichen Selbstverständnis* [Foreign language teachers. Studies on their professional self-understanding]. Tübingen: Narr.

Castellotti, V. (2001). *La langue maternelle en classe de langue étrangère* [The mother tongue in the foreign language classroom]. Saint Germain du Puy: Clé International.

Cathomas, R. (2003). Einblicke in eine integrale Sprachendidaktik (ISD). *Babylonia, 3–4*, 64–67.

Cavalli, M. (1994). Enseignement des langues: vers une didactique intégrée [Language teaching : towards an integrated didactic approach]. L'é*cole valdôtaine, 24*, 18–22.

Cavalli, M. (2005). *Education bilingue et plurilinguisme: le cas du Val d'Aoste* [Bilingual education and plurilingualism: the case of the Val d'Aoste]. Paris: LAL Didier.

Cenoz, J. (2000). Research on multilingual acquisition. In J. Cenoz & U. Jessner (Eds.), *English in Europe: The Acquisition of a Third Language* (pp. 39–53). Clevedon: Multilingual Matters.

Cenoz, J. (2001). The effect of linguistic distance, L2 status and age on cross-linguistic influence in L3 acquisition In J. Cenoz, B. Hufeisen & U. Jessner (Eds.), *Cross-linguistic Influence in Third Language Acquisition* (pp. 8–20). Clevedon: Multilingual Matters.

Cenoz, J. (2003). The additive effect of bilingualism on third language acquisition: A review. *International Journal of Bilingualism, 7*(1), 71–87.

Cenoz, J., & Hoffmann, C. (2003). Acquiring a third language: What role does bilingualism play?. *International Journal of Bilingualism, 7*(1), 1–5.

Cenoz, J., & Jessner, U. (2000). *English in Europe: The Acquisition of a Third Language*. Frankfurt: Multilingual Matters.

Cenoz, J., Hufeisen, B. & Jessner, U. (2001). Towards trilingual education. *International Journal of Bilingual Education and Bilingualism, 4*(1), 1–10.

Chimbutane, F. (2013). Codeswitching in l1 and l2 learning contexts: Insights from a study of teacher beliefs and practices in Mozambican bilingual education programmes. *Language and Education, 27*(4), 314–328.

Christ, H. (2000). Von der Zielsprachendidaktik zur Didaktik der Mehrsprachigkeit [From the target language didactics to the didactics of multilingualism]. In B. Helbig, K. Kleppin, & F. G. Königs (Eds.), *Sprachlehrforschung im Wandel. Beiträge zur*

Erforschung des Lehrens und Lernens von Fremdsprachen. Festschrift für Karl-Richard Bausch zum 60. Geburtstag (pp.3–20). Tübingen: Stauffenburg (Stauffenburg Festschriften).

Clandinin, J., & Connelly, F. M. (1987). Teachers' personal knowledge: What counts as 'personal' in studies of the personal. *Journal of Curriculum Studies, 19,* 487–500.

Clark, C. M., & Peterson, P. L. (1986). Teachers' thought processes. In M. C. Wittrock (Ed.), *Handbook of Research on Teaching* (3rd ed., pp. 255–296). New York: Macmillan.

Clyne, M. (2003). *Dynamics of Language Contact*. Cambridge: Cambridge University Press.

Clyne, M. (1997). Some of the things trilinguals do. *The International Journal of Bilingualism 1*(2), 95–116.

Coggins III, P., Kennedy, T., & Armstrong, T. (2004). Bilingual corpus callosum variability. *Brain And Language, 89*(1), 69–75. http://dx.doi.org/10.1016/s0093-934x(03)00299-2

Cohen, A. D., & White, C. (2008). Language learners as informed consumers of language instruction. In A. Stavans & I. Kupperberg (Eds.), *Studies in Language and Language Education* (pp. 185-205). Jerusalem: The Hebrew University Magnes Press.

Collie Graden, E. (1996). How language teachers' beliefs about reading are mediated by their beliefs about students. *Foreign Language Annals, 29*(3), 387–395.

Colzato, L., Bajo, M., van den Wildenberg, W., Paolieri, D., Nieuwenhuis, S., La Heij, W., & Hommel, B. (2008). How does bilingualism improve executive control? A comparison of active and reactive inhibition mechanisms. *Journal Of Experimental Psychology: Learning, Memory, And Cognition*, *34*(2), 302–312. http://dx.doi.org/10.1037/0278-7393.34.2.302

Conteh, J., & Meier, G. (Eds.). (2014). *The Multilingual Turn in Languages Education: Opportunities and Challenges*. New Perspectives on Language and Education. Clevedon: Multilingual Matters.

Conteh, J., Copland, F., & Creese, A. (2014). Multilingual teachers' resources in three different contexts: Empowering learning. In J. Conteh, & G. Meier (Eds.), *The Multilingual Turn in Languages Education: Benefits for Individuals and Societies* (pp. 158–178). New Perspectives on Language and Education. Clevedon: Multilingual Matters.

Cook, G. (2007). A thing of the future: translation in language learning. *International Journal of Applied Linguistics, 17*(3), 396–401.

Cook, G. (2010). *Translation in Language Teaching*. Oxford: Oxford University Press.

Cook, V. (1999). Going beyond the native speaker in language teaching. *TESOL Quarterly 33*(2), 185–209.

Council of Europe (online). *Education and Languages, Language Policy*. Retrieved from http://www.coe.int/t/dg4/linguistic/Division_EN.asp

Council of Europe. (2001). *Common European Framework of Reference for Languages: Learning, Teaching, Assessment*. Cambridge: Cambridge University Press.

Creese, A. & Blackledge, A. (2010). Translanguaging in the Bilingual Classroom: A Pedagogy for Learning and Teaching? *The Modern Language Journal, 94*(1), 103–115.

Cross, R. (2011). Troubling literacy: Monolingual assumptions, multilingual contexts, and language teacher expertise. *Teachers and Teaching, 17*(4), 467–478.

Csizér, K. (2004). *Motivation in second language learning* (Unpublished doctoral dissertation). Retrieved from http://www.doktori.hu/index.php?menuid=122&lang=EN

Cummins, J. (2001). Instructional conditions for trilingual development. *International Journal of Bilingual Education and Bilingualism, 4*(1), 61–75.

Cummins, J. (2007). Rethinking monolingual instructional strategies in multilingual classrooms. *Canadian Journal of Applied Linguistics, 10*(2), 221–240.

De Angelis, G. (2011). Teachers' beliefs about the role of prior language knowledge in learning and how these influence teaching practices. *International Journal of Multilingualism, 8*(3), 216–234.

De Angelis, G., & Selinker, L. (2001). Interlanguage transfer and competing linguistic systems in the multilingual mind. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.), *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 42–58). Clevedon: Multilingual Matters.

De Bot, K. (1992). A bilingual production model: Levelt's 'speaking' model adapted. *Applied Linguistics 13*(1), 1–24.

De Bot, K. (1996). The psycholinguistics of the output hypothesis. *Language Learning, 46*(3), 529–555.

De Bot, K. (2004). The multilingual lexicon: Modeling selection and control. *International Journal of Multilingualism, 1*, 17–32.

De Vellis, R. F. (2003). *Scale Development. Theory and Application*. California: Sage Publications.

DeFord, D. (1985). Validating the construct of theoretical orientation in reading instruction. *Reading Research Quarterly, 20*(3), 351–367.

Dewaele, J.-M. (1998). Lexical inventions: French Interlanguage as L2 versus L3. *Applied Linguistics 19*(4), 471–490.

Dijkstra, T. (2003). Lexical processing in bilinguals and multilinguals: The word selection problem. In J. Cenoz, B. Hufeisen & U. Jessner (Eds.), *The Multilingual Lexicon* (pp. 11–26). Dordrecht: Kluwer.

Dörnyei, Z. & Csizér, K. (2007). How to design and analyse surveys in second language acquisition research. In A. Mackey & S. M. Gass (Eds.), *Research Methods in Second Language Acquisition: A Practical Guide* (pp. 74–94). Chichester: Blackwell Publishing.

Dörnyei, Z. (2007). *Research Methods in Applied Linguistics*. Oxford: Oxford University Press.

Dörnyei, Z. (2009). Individual differences: Interplay of learner characteristics and learning environment. In N. C. Ellis and D. Larsen-Freeman (Eds.), *Language as a Complex Adaptive System* (pp. 237–255). Oxford: Wiley Blackwell.

Dörnyei, Z. (2010). *Questionnaires in Second Language Research: Construction, Administration, and Pocessing*. London: Routledge.

Dulay, H., Burt, M., & Krashen, S. (1982). *Language Two*. New York, NY: Oxford University Press.

Ecke, P. (2001). Lexical retrieval in a third language: Evidence from errors and tip-of-the-tongue states. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.), *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 90–114). Clevedon: Multilingual Matters.

Ecke, P., & Hall, C. J. (2000). Lexikalische Fehler in Deutsch als Drittsprache: Translexikalischer Einfluss auf drei Ebenen der mentalen Repräsentation [Lexical errors in German as a third language: Translexic influence at three levels of mental representations]. *Deutsch als Fremdsprache, 37*, 30–36.

Ellis, E. M. (2004). The invisible multilingual teacher. *International Journal of Multilingualism, 1*(2), 90–108.

Ellis, E. M. (2006). Language learning experience as a contributor to ESOL teacher cognition. *TESL-EJ, 10*(1). Retrieved from http://files.eric.ed.gov/fulltext/EJ1065006.pdf

Ellis, E. M**.** (2012). Language awareness and its relevance for TESOL. *University of Sydney Papers in TESOL 7*, 1–23.

Ellis, E. M. (2013) The TESOL teacher as plurilingual: an Australian perspective. *TESOL Quarterly 47*(3), 446–471.

Ellis, L. (2002). Teaching from experience: a new perspective on the non-native teacher in adult ESL. *Australian Review of Applied Linguistics*, 25(1), 71–107.

Emmorey, K., Luk, G., Pyers, J., & Bialystok, E. (2008). The source of enhanced cognitive control in bilinguals: Evidence from bimodal bilinguals. *Psychological Science, 19*(12), 1201–1206. http://dx.doi.org/10.1111/j.1467-9280.2008.02224.x

Eraut, M. (1985). Knowledge creation and knowledge use in professional contexts. *Studies in Higher Education, 10*, 117–133.

Ernest, P. (1989). The knowledge, beliefs and attitudes of the mathematics teacher: A model. *Journal of Education for Teaching, 15*, 13–34.

European Centre for Modern Languages (ECML) (online). *Supporting multilingual classrooms*. Retrieved from http://www.ecml.at/TrainingConsultancy/Multilingualclassrooms

European Commission (2012a). *Special Eurobarometer 386. Europeans and their languages. Report*. Retrieved from http://www.ec.europa.eu/public_opinion/archives/ebs/ebs_386_en.pdf

European Commission (2012b). *First European Survey on Language Competences*. Luxembourg: Publications Office of the European Union.

European Commission (2015). *Language Teaching and Learning in Multilingual Classrooms*. Brussels: Publications Office of the European Union.

European Council (2002). *Presidency Conclusions – Barcelona European Council 15 and 16 March 2002* (SN 100/1/102 REV 1). Brussels.

European Union (online). *Multilingualism*. Retrieved from https://europa.eu/european-union/topics/multilingualism_en

Eurydice (2012). *Key Data on Teaching Languages at School in Europe*. Brussels: Publications Office of the European Union.

Extra, G., & Yagmur, K. (2012). *Language Rich Europe (LRE). Trends in Policies and Practices for Multilingualism in Europe*. Cambridge: Cambridge University Press.

Farrell, T. S. C., & Lim, P. C. P. (2005). Conceptions of grammar teaching: A case study of teachers' beliefs and classroom practices. *TESL-EJ, 9*(2), 1–13.

Federal Statistical Office (2016). *Pratiques linguistiques en Suisse – Premiers résultats de l'Enquête sur la langue, la religion et la culture 2014*. Retrieved from https://www.bfs.admin.ch/bfsstatic/dam/assets/1000171/master

Fenstermacher, *G. D. (*1994*).* The knower and the known: The nature of knowledge in research on teaching. *Review of Research in Education, 20*, 3–56.

Flavell J. H. (1981). Cognitive monitoring. In P. Dickson (Ed.), Children's Oral Communication Skills (pp. 35–39). New York, NY: Academic Press.

Flores, B. B. (2001). Bilingual education teachers' beliefs and their relation to self-reported practices. *Bilingual Research Journal, 25*(3), 251–275.

Flowerdew, J. (1998). Language learning experience in L2 teacher education. *TESOL Quarterly, 32*(3), 529–535.

Flynn, S., Foley, C. & Vinnitskaya, I. (2004). The cumulative-enhancement model for language acquisition: comparing adults' and children's patterns of development in

first, second and third language acquisition of relative clauses. *International Journal of Multilingualism, 1*(1), 3–16.

Forche, C. (2012). On the emergence of Euro-English as a potential European variety of English–attitudes and interpretations. *Jezikoslovlje, XIII*(2), 447–478.

Freeman, D. (1992). Language teacher education, emerging discourse and change in classroom practice. In J. Flowerdew, M. Brock, & S. Hsia (Eds.). Perspectives on Second Language Teacher Education (pp. 1–21). Hong Kong: City University of Hong Kong.

Friedman, M., & Rosenman, R. H. (1974). *Type A Behavior and Your Heart*. New York, NY: Knopf.

Gajo, L. (2014). From normalization to didactization of multilingualism: European and Francophone research at the crossroads between linguistics and didactics. In J. Conteh, & G. Meier (Eds.), *The Multilingual Turn in Languages Education: Benefits for Individuals and Societies* (pp.113–131). New Perspectives on Language and Education. Clevedon: Multilingual Matters.

Garbin, G., Sanjuan, A., Forn, C., Bustamante, J., Rodriguez-Pujadas, A., Belloch, V.,& Avila, C. (2010). Bridging language and attention: Brain basis of the impact of bilingualism on cognitive control. *Neuroimage, 53*(4), 1272–1278.

García, O. (2013). From disglossia to transglossia: Bilingual and multilingual classrooms in the 21st century. In C. Abello-Contesse, P. M. Chandler, M. D. López-Jiménez, & R. Chacón-Beltrán (Eds.), *Bilingual and multilingual education in the 21st century: Building on experience* (pp. 155–175). Bristol, UK: Multilingual Matters.

García, O. (2009). Education, multilingualism and translanguaging in the 21st century. In A. Mohanty, M. Panda, R. Phillipson, & T. Skutnabb-Kangas (Eds.), *Multilingual*

Education for Social Justice: Globalising the Local (pp. 128–145). New Delhi: Orient Blackswan (former Orient Longman).

García-Mayo, M. P. (2012). Cognitive approaches to L3 acquisition. *IJES, 12*(1), 129–146.

Gibson, M., & Hufeisen, B. (2002). Investigating the role of prior foreign language knowledge. In J. Cenoz, B. Hufeisen & U. Jessner (Eds.), *The Multilingual Lexicon* (pp. 87–102). Dordrecht: Kluwer Academic Publishers.

Gombert, J. E. (1992). *Metalinguistic Development*. Hemel Hempstead: Harvester.

Goodman, J. (1988). Constructing a practical philosophy of teaching: A study of preservice teachers' professional perspectives. *Teaching & Teacher Education, 4*, 121–137.

Green, D. (1986). Control, activation and resource: A framework and a model for the control of speech in bilinguals. *Brain and Language, 27*, 210–223.

Green, D. (1998). Mental control of the bilingual lexico-semantic system. *Bilingualism: Language and Cognition, 1*, 67-81.

Griva, E., & Chostelidou, D. (2011). Multilingual learning: A comparative study of students learning FLs in Greek primary and secondary education. In J. Avery & M. Steward (Eds.), *New Research in Language Learning* (pp. 87–116). New York: Nova Science.

Griva, E., & Chostelidou, D. (2012). Multilingual competence development in the Greek educational system: FL teachers' beliefs and attitudes. *International Journal of Multilingualism, 9*(3), 257–271.

Grosjean, F. (1982). *Life with Two Languages: An Introduction to Bilingualism*. Cambridge, Mass: Harvard University Press.

Grosjean, F. (1985). The bilingual as a competent but specific speaker-hearer. *Journal of Multilingual and Multicultural Development, 6,* 467–477.

Grosjean, F. (1994). *Individual Bilingualism. The Encyclopedia of Language and Linguistics*. Oxford: Pergamon Press.

Grosjean, F. (1998a). Transfer and language mode. *Bilingualism: Language and Cognition, 1*(3), 175–176.

Grosjean, F. (1998b). Studying bilinguals: Methodological and conceptual issues. *Bilingualism: Language and Cognition, 1*, 131–149.

Grosjean, F. (1999). Le bilinguisme: une compétence communicative à part entière [Bilingualism: a communicative competence in its own right]. *Educateur Magazine, 12*, 18–21.

Grosjean, F. (2001). The bilingual's language modes. In J. Nicol (Ed.), *One Mind, Two Languages: Bilingual Language Processing*, (pp. 1–25). Oxford: Blackwell.

Grossman, P. M., Wilson, S. M., & Shulman, L. S. (1989). Teachers of substance: Subject matter knowledge for teaching. In M. C. Reynolds (Ed.), *Knowledge Base for the Beginning Teacher* (pp. 23–36). Oxford: Pergamon Press.

Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational Researcher, 15*(5), 5–12.

Gutierrez Eugenio, E. (2014). Assessing L3 teachers' beliefs about multilingualism: Building, fine-tuning and validating a questionnaire. *Working Papers in Language Pedagogy, 8*, 80–115.

Gutiérrez Eugenio, E. & Saville, N. (2016). *Implementation of the European Strategy on Multilingualism – Policy and implementation at EU level* (European Parliament, Policy Department, Culture and Education Publication no. IP/B/CULT/IC/2016-063). Brussels: European Parliament. Retrieved from http://www.europarl.europa.eu/RegData/etudes/STUD/2016/573456/IPOL_STU(2016)573456_EN.pdf

Hall, C. J. (1992). *Making the right connections: Vocabulary learning and the mental lexicon. Universidad de las Américas – Puebla*. (ERIC Document Reproduction Service No. ED 363 128).

Hall, G. & Cook, G. (2013). Own language use in ELT: exploring global practices and attitudes. *ELT Research Papers 13-01*. Retrieved from https://englishagenda.britishcouncil.org/sites/ec/files/C448%20Own%20Language%20use%20in%20ELT_A4_FINAL_WEB%20ONLY.pdf

Hammarberg, B. (2001). Roles of L1 and L2 in L3 production and acquisition. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.), *Cross-linguistic Influence in Third Language Acquisition* (pp. 21–41). Clevedon: Multilingual Matters.

Hammarberg, B. (2010). The languages of the multilingual: some conceptual and terminological issues. *International Review of Applied Linguistics, 48*, 91–104.

Harvey, O.J. (1986). Belief systems and attitudes toward the death penalty and other punishments. *Journal of Psychology, 54*, 143–159.

Haukås, Å. (2015). Teachers' beliefs about multilingualism and a multilingual pedagogical approach. *International Journal of Multilingualism, 13*(1), 1–18.

Hélot, C. (1988). Bringing up children in English, French and Irish: two case studies. *Language, Culture and Curriculum, 1*(3), 281–287.

Herdina, P. & Jessner, U. (2002). *A Dynamic Model of Multilingualism: Perspectives of Change in Psycholinguistics*. Clevedon: Multilingual Matters.

Herrenberger, A. (1999). *Vers une pédagogie inter-langues. Anglais, allemand, espagnol, portugais* [Towards an interlingual pedagogy: English, German, Spanish, Portuguese]. Strasbourg: CRDP d'Alsace.

Herwig, A. (2001). Plurilingual lexical organisation. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.), *Cross-linguistic Influence in Third Language Acquisition* (pp. 115–137). Clevedon: Multilingual Matters.

Hinger, B., Kofler, W., Skinner, A. & Stadler, W. (2005). The Innsbruck model of Fremdsprachendidaktik: Towards an integrated multilingual approach in pre-service teacher education. *The Teacher Trainer, 15*(1), 17–20.

Holliday, A. (2005). *The Struggle to Teach English as an International Language*. Oxford: Oxford University Press.

Holliday, A. (2009). English as a Lingua Franca, non-native speakers and cosmopolitan realities. In F. Sharifian (Ed.), *English as an International Language: Perspectives and Pedagogical Issues* (pp. 21–33). Bristol: Multilingual Matters.

Holmes, T. H., & *Rahe R. H.* (*1967*). The social readjustment rating scale. *Journal of Psychosomatic Research 11*(2), 213–218.

Horwitz, E. K. (1985). Using student beliefs about language learning and teaching in the foreign language methods course. *Foreign Language Annals, 18*, 333–340.

Hufeisen, B. (1991). *Englisch als erste und Deutsch als zweite Fremdsprache. Empirische Untersuchungen zur fremdsprachlichen Interaktion* [English as first and German as second foreign languages. Empirical research on foreign language interaction]. Frankfurt: Peter Lang.

Hufeisen, B. (1993). L3-Spezifika [L3 specifics]. *GAL-Bulletin, 19*, 14–20.

Hufeisen, B. (1997). L3-Spezifika [L3 specifics]. *Zeitschrift für Angewandte Linguistik, 26*, 83–87.

Hufeisen, B. (1998). L3 – Stand der Forschung – Was bleibt zu tun? [State of Art: What Remains to be Done?] In B. Hufeisen & B. Lindemann (Eds.), *Tertiärsprachen:*

Theorien, modellen, methoden [Tertiary Languages: Theories, Models, Methods] (pp. 169-183). Tübingen: Stauffenburg.

Hufeisen, B. (1998). L3-Spezifika [L3 specifics]. *Zeitschrift für Angewandte Linguistik, 28*, 99–107.

Hufeisen, B. (2005). Multilingualism: Linguistic models and related issues. In B. Hufeisen & R. Fouser (Eds.), *Introductory readings in L3* (pp. 31–45). Tübingen: Stauffenburg.

Hufeisen, B., & Marx, N. (2007). How can DaFnE and EuroComGerm contribute to the concept of receptive multilingualism? Theoretical and practical considerations. In J. Thije & L. Zeevaert (Eds.), *Receptive, Multilingualism: Linguistic Analyses, Language Policies and Didactic Concepts* (pp. 307–321). Amsterdam: John Benjamins.

Hufeisen, B., & Neuner, G. (Eds.) (2004). *The Plurilingualism Project: Tertiary Language Learning – German after English*. Strasbourg: Council of Europe Publishing.

Ianco-Worrall, A. (1972). Bilingualism and cognitive development. *Child Development, 43*(1), 390–400.

Inglada, S. (2011). *Didactique du français, didactique des langues, linguistique, littérature française. Revues scientifiques en ligne* [*French didactics, language didactics, linguistics, French literature. Online journals*]. Paris : Centre de ressources et d'ingénierie documentaire.

Instituto Cervantes (2007). *Plan Curricular del Instituto Cervantes, Niveles de Referencia para el español* [Cervantes Institute's curriculum, reference levels for Spanish]. Madrid: Biblioteca Nueva.

Jackson, P. (1968). *Life in Classrooms*. New York, NY: Holt, Rinehart and Winston.

Jenkins, J. (2001). 'Euro-English' accents. *English Today, 68*, 16–19.

Jenkins, J. (2015) Repositioning English and multilingualism in English as a lingua franca. *Englishes in Practice, 2*(3), 49–85.

Jessner, U. (1999). Metalinguistic awareness in multilinguals: Cognitive aspects of third language learning. *Language Awareness, 3*, 201–209.

Jessner, U. (2003). The nature of cross-linguistic interaction in the multilingual system. In J. Cenoz, B. Hufeisen & U. Jessner (Eds.), *The multilingual lexicon* (pp. 45-56). Dordrecht: Kluwer Academic Publishers.

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

Jessner, U. (2008). Teaching third languages: Findings, trends and challenges. *Language Teaching, 41*(1), 15–56.

Johnson, K. E. (1994). The emerging beliefs and instructional practices or preservice English as a second language teachers. *Teaching and Teacher Education, 10*(4), 439–452.

Jørgensen, J. N. (2008). Poly-Lingual languaging around and among children and adolescents. *International Journal of Multilingualism, 5*(3), 161–176.

Kagan, D. M. (1992). Implications of research on teacher belief. *Educational Psychologist, 27*, 65-90.

Kecskes, I., & Papp, T. (2000a). *Foreign Language and Mother Tongue*. Mahwah, NJ: Lawrence Erlbaum.

Kecskes, I., & Papp, T. (2000b). Metaphorical competence in trilingual language production. In J. Cenoz, and U. Jessner (Eds.), *English in Europe: the Acquisition of a Third Language* (pp. 99–120). Clevedon: Multilingual Matters.

Kellerman, E. (1979). Transfer and non-transfer: Where are we now? *Studies in Second Language Acquisition, 2*, 37–57.

Kellerman, E. (1983). Now you see it, now you don't. In S. Gass & L. Selinker (Eds.), *Language Transfer in Language Learning* (pp. 112–134). Rowley, MA: Newbury House.

Kellerman, E., & Sharwood Smith, M. (Eds.). (1986) *Crosslinguistic Influence in Second Language Acquisition*. New York, NY: Pergamon Press.

Kemp, C. (2007). Strategic processing in grammar learning: Do multilinguals use more strategies? *International Journal of Multilingualism, 4*(4), 241–261.

Kemp, C. (2009). Defining multilingualism. In L. Aronin & B. Hufeisen (Eds.), *The Exploration of Multilingualism* (pp. 11–26). Amsterdam/Philadelphia: John Benjamins.

Kennedy, M. (1991). *An Agenda for Research on Teacher Learning*. East Lansing: National Center for Research on Teacher Learning, Michigan State University.

Kramsch, C. (2006). The multilingual subject. *International Journal or Applied Linguistics, 16*(1), 97–110.

Kroll, J.F., & Stewart (1994). Category interference in translation and picture naming: Evidence for asymmetric connections between bilingual memory representations. *Journal of Memory and Language, 33*, 149–174.

Krumm, H-J. (2005). Von der additiven zur curricularen Mehrsprachigkeit: Über die Notwendigkeit der Einbeziehung von Minderheiten-, Migranten- und Nachbarsprachen [From additive to curricular multilingualism: on the necessity of including minority, migrant, and subordinate languages]. In B. Hufeisen & M. Lutjeharms (Eds.), *Gesamtsprachencurriculum Integrierte Sprachendidaktik Common Curriculum* (pp. 27–36). Tübingen: Narr.

Kujalowicz, A., & Zajdler, E. (2009). Language activation and lexical processing by Polish learners of English and Chinese – the role of learning experience in TLA. *International Journal of Multilingualism, 6*(1), 85–104.

Kursisa, A., & Neuner, G. (2006). *Deutsch ist easy!* Munich: Hueber.

Larsen-Freeman, D. (1997). Chaos/complexity science in second language acquisition. *Applied Linguistics, 18*, 141–165.

Larsen-Freeman, D. (2012). Complex, dynamic systems: A new transdisciplinary theme for applied linguistics? *Language Teaching, 45,* 202–214.

Lasagabaster, D. (1997). *Creatividad y conciencia metalingüística: incidencia en el aprendizaje del inglés como L3* [*Creativity and metalinguistic awareness: incidence in the learning of English as an L3*] (Unpublished doctoral dissertation). University of the Basque Country, Vitoria-Gasteiz.

Lasagabaster, D. (2000). Three languages and three linguistic models in the Basque educational system. In J. Cenoz, & U. Jessner, (Eds.), *English in Europe: The Acquisition of a Third Language* (pp. 179–197). Frankfurt: Multilingual Matters.

Lasagabaster, D., & Huguet, A. (Eds.). (2007). *Multilingualism in European Bilingual Contexts. Language Use and Attitudes*. Clevedon: Multilingual Matters.

Levelt, W. (1989). *Speaking: from Intention to Articulation*. Cambridge, MA: The MIT.

Lightbown, P. M., & Spada, N. (1993). *How languages are Learned*. Oxford: Oxford University Press.

Lim, C., & Torr, J. (2007). Singaporean early childhood teachers' beliefs about literacy development in a multilingual context. *Asia-Pacific Journal of Teacher Education, 35*(4), 409–434.

Lindqvist, C. (2009). The use of the L1 and the L2 in French L3: examining cross-linguistic lexemes in multilingual learners' oral production. *International Journal of Multilingualism, 6*(3), 281–297.

Llurda, E. (2004). Non-native-speaker teachers and English as an International Language. *International Journal of Applied Linguistics, 14*, 314–323.

Lortie, D. (1975). *Schoolteacher: A Sociological Study*. Chicago: University of Chicago Press.

Lowe, T. (1987). An experiment in role reversal: Teachers as language learners. *ELT Journal, 41*(2), 89–96.

Luk, G., Anderson, J., Craik, F., Grady, C., & Bialystok, E. (2010). Distinct neural correlates for two types of inhibition in bilinguals: Response inhibition versus interference suppression. *Brain and Cognition, 74*(3), 347–357. http://dx.doi.org/10.1016/j.bandc.2010.09.004

Luk, G., Green, D., Abutalebi, J., & Grady, C. (2012). Cognitive control for language switching in bilinguals: A quantitative meta-analysis of functional neuroimaging studies. *Language and Cognitive Processes, 27*(10), 1479–1488. http://dx.doi.org/10.1080/01690965.2011.613209

MacDonald, M., Badger, R., & White, G. (2001). Changing values: What use are theories of language learning and teaching? *Teaching and Teacher Education, 17*(8), 949–963.

Mady, C. (2012). Inclusion of English language learners in French as a second official language classes: Teacher knowledge and beliefs. *International Journal of Multilingualism, 9*(1), 1–14.

Malakoff, M. (1992). Translation ability: A natural bilingual and metalinguistic skill. In R. Harris (Ed.), *Cognitive Processing in Bilinguals* (pp. 515–530). Hillsdale, NJ: Lawrence Erlbaum.

Manno, G. (2004). Early English in German-speaking Switzerland. In B. Hufeisen & G. Neuner (Eds.), *The Plurilingualism Project: Tertiary Language Learning – German after English* (pp. 153–172). Strasbourg: Council of Europe Publishing.

Marchant, G. J., & Bowers, N. D. (1988). *Teacher agreement with research-based effective teaching behaviors*. Paper presented at the annual meeting of the American Education Research Association, April 5–9, 1988. (ERIC Document Reproduction Services No. ED 302503).

Marchant, G. J., & Bowers, N. D. (1990). An attitude inventory for research-based effective teaching behaviors. *Educational and Psychological Measurement, 50*(1), 167–174.

Marchant, G. J., & Bowers, N. D. (1997). Teacher behavior questionnaire. In P. E. Lestor & L. K. Bishop (Eds.), *Handbook of Tests and Measurement in Education and the Social Sciences* (pp. 221–223). Lancaster, PA: Technomic Publishing Company.

Marian, V., Blumenfeld, H. K., & Kaushanskaya, M. (2007). The Language Experience and Proficiency Questionnaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of Speech, Language, and Hearing Research, 50,* 940–967.

Masny, D. (1997). Linguistic awareness and writing: Exploring the relationship with language awareness. *Language Awareness, 6*(2-3), 105–118.

Matz, K.-D., Teschmer, J., & Weise, G. (1988). Angewandte Fremdsprachenpsychologie und ihr Beitrag für die Effektivierung des Lernens und Lehrens von Fremdsprachen [Applied foreign language psychology and its contribution to the effectiveness of learning and teaching of foreign languages]. *Deutsch als Fremdsprache, 25*, 224–230.

Mauranen, A. (2003). Academic English as lingua franca – a corpus approach. *TESOL Quarterly, 37,* 513–527.

McDonough, J. (2002). The teacher as language learner: worlds of difference? *ELT Journal 56*(4), 404-411.

McElree, B., Jia, G., & Litvak, A. (2000). The time course of conceptual processing in three bilingual populations. *Journal of Memory and Language, 42*(2), 229–254.

McLaughlin, B. (1990). The relationship between first and second languages: Language proficiency and language aptitude. In B. Harley, P. Allen, J. Cummins & M. Swain (Eds.), *The development of L2 proficiency* (pp. 158–174). Cambridge: Cambridge University Press.

Mechelli, A., Crinion, J., Noppeney, U., O'Doherty, J., Ashburner, J., Frackowiak, R., & Price, C. (2004). Neurolinguistics: Structural plasticity in the bilingual brain. *Nature, 431*(7010), 757–775. http://dx.doi.org/10.1038/431757a

Medgyes, P. (1983). The schizophrenic teacher. *ELT Journal, 37*(1), 2–6.

Medgyes, P. (1992). Native or non-native: who's worth more. *ELT Journal, 47*(4), 340–349.

Medgyes, P. (1994). *The Non-native Teacher*. Houndsmills: Macmillan.

Meisel, J. (1983). Transfer as a second language strategy. *Language and Communication 3*(1), 11–46.

Meissner, F.-J. (2000). Zwischensprachliche Netzwerke. Mehrsprachigkeitsdidaktische Überlegungen zur Wortschatzarbeit [Inter-linguistic networks. Multilingual didactic considerations on vocabulary]. *Französisch heute, 31*(1), 55–67.

Mißler, B. (1999). *Fremdsprachenlernerfahrungen und Lernstrategien* [*Foreign language learning experiences and learning strategies*]. Tübingen: Stauffenburg.

Modiano, M. (2001). A new variety of English. *English Today, 68*, 13–16.

Modiano, M. (2003). Euro-English: A Swedish perspective. *English Today, 74*, 35–41.

Modiano, M. (2007). Review article: Euro-English from a 'deficit linguistics' perspective? *World Englishes, 26*, 525–533.

Modiano, M. (2009). Euro-Englishes. In B. Kachru, Y. Kachru & C. L. Nelson (Eds.), *The Handbook of World Englishes* (pp. 223–239). Oxford: Blackwell.

Mohanty, A. (1994). *Bilingualism in a Multilingual Society: Psychosocial and Pedagogical Implications*. Mysore: Central Institute of Indian Languages.

Möhle, D. (1989). Multilingual interaction in foreign language production. In H. Dechert & M. Raupach (Eds.), *Interlingual Processes* (pp. 179–194). Tübingen: Narr.

Mollin, S. (2006). *Euro-English. Assessing Variety Status*. Tübingen: Narr.

Molnár, T. (2010). Cognate recognition and L3 vocabulary acquisition. A*cta Universitatis Sapientiae, Philologica, 2*(2), 337–349.

Moore, D. (2006). Plurilingualism and strategic competence in context. *International Journal of Multilingualism, 3*(2), 125–138.

Müller-Lancé, J. (2003). *Der Wortschatz romanischer Sprachen im Tertiärspracherwerb* [The vocabulary of Romance languages in tertiary language acquisition]. Tübingen: Stauffenburg.

Munby, H. (1982). The place of teachers' beliefs in research on teacher thinking and decision making, and an alternative methodology. *Instructional Science, 11*, 201–225.

Muñoz, C. (2000). Bilingualism and trilingualism in school students in Catalonia. In J. Cenoz & U. Jessner (Eds.), *English in Europe: The Acquisition of a Third Language* (pp. 157–178). Frankfurt: Multilingual Matters.

Murray, H. (2003). Swiss English teachers and Euro-English: Attitudes to a non-native variety. *Bulletin Suisse de Linguistique Appliquée, 77*, 147–165.

Murray, S. L., & Holmes, J. G. (1999). The (mental) ties that bind: Cognitive structures that predict relationship resilience. *Journal of Personality and Social Psychology, 77*(6), 1228–1244.

Nespor, J. (1987). The role of beliefs in the practice of teaching. *Journal of Curriculum Studies, 19*, 317–328.

Neuner, G. (2004). The concept of plurilingualism and tertiary language didactics. In B. Hufeisen & G. Neuner (Eds.), *The Plurilingualism project: Tertiary Language Learning – German after English* (pp. 13–34). Strasbourg: Council of Europe.

Neuner, G. (2009). Zu den Grundlagen und Prinzipien der Mehrsprachigkeitsdidaktik und des Tertiärsprachenlernens [On the foundations and principles of multilingualism and tertiary language learning]. *Babylonia, 4*, 14–17.

Neuner, G., Hufeisen, B., Kursisa, A., Marx, N., Koithan, U., & Erlenwein, S. (2009). *Deutsch als zweite Fremdsprache* [German as second foreign language]. Munich: Fernstudieneinheit 26; Universität Kassel/ Goethe-Institut München.

Neuner. G., Kursisa, A., Pilypaityte, L., Szakely, E., & Vicente, S. (2008). *deutsch.com, Ein Lehrwerk für Jugendliche* [deutsch.com, a course book for youngsters]. Ismaning: Hueber.

Ng, J., & Farrell, T. S. C. (2003). Do teachers' beliefs of grammar teaching match their classroom practices? A Singapore case study. In D. Deterding, A. Brown & E. L. Low (Eds.), *English in Singapore: Research on Grammar* (pp. 128–137). Singapore: McGraw Hill.

Nisbett, R., & Ross, L. (1980). *Human inference: Strategies and Shortcomings of Social Judgment*. Englewood Cliffs, NJ: Prentice-Hall.

Numrich, C. (1996). On becoming a language teacher: Insights from diary studies. *TESOL Quarterly, 30*(1), 131–153.

Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.

Ó Laoire, M. & Singleton, D. (2009). The role of prior knowledge in L3 learning and use: further evidence of psychotypological dimensions. In L. Aronin & B. Hufeisen (Eds.), *The Exploration of Multilingualism* (pp. 79–102). Amsterdam/Philadelphia: John Benjamins.

Ó Laoire, M. (2001). Balanced bilingual and L1-dominant learners of L3 in Ireland: A case study. In J. Cenoz, B. Hufeisen & U. Jessner (Eds.), *Looking Beyond Second Language Acquisition: Studies in Tri- and Multilingualism* (pp. 153–160). Tübingen: Stauffenburg.

Ó Laoire, M., & D. Singleton. (2009). The role of prior knowledge in L3 learning and use: further evidence of a psychotypological dimension. In L. Aronin, and B. Hufeisen (Eds.), *The Exploration of Multilingualism*, 79–102. Amsterdam: John Benjamins.

Organisation for Economic Co-operation and Development (2009). *Teaching and Learning International Survey (TALIS)*. Paris: OECD.

Otwinowska, A. (2013). Does multilingualism influence plurilingual awareness of Polish teachers of English? *International Journal of Multilingualism 11*(1), 97–119.

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*(3), 307–332.

Paradis, M. (1981). Neurolinguistic organization of a bilingualism. *LACUS Forum, 7*, 486–494.

Paradis, M. (1987). *The Assessment of Bilingual Aphasia*. Hillsdale: Erlbaum.

Pavlenko, A. (1999). New approaches to concepts in bilingual memory. *Bilingualism: Language and Cognition, 2*, 209– 230.

Peacock, M. (2001). Pre-service ESL teachers' beliefs about second language learning: A longitudinal study. *System, 29*, 177–195.

Peal, E. & Lambert, W. (1962). The relation of bilingualism to intelligence. *Psychological Monographs: General and Applied, 76*(27), 1–23. http://dx.doi.org/10.1037/h0093840

Pennington, M. C., & Urmston, A. (1998). The teaching orientation of graduating students on a BA TESL course in Hong Kong: A comparison with first-year students. *Hong Kong Journal of Applied Linguistics, 3*(2), 17–46.

Perales, J., & Cenoz, J. (2002). The effect of individual and contextual factors in adult second language acquisition in the Basque Country. *Language, Culture and Curriculum, 15*(1), 1–15.

Philipson, R. (1992). *Linguistic Imperialism*. Oxford: Oxford University.

Piaget, J. (1952). *The Origins of Intelligence in Children*. New York, NY: International Universities.

Pimsleur, P. (1966). *Pimsleur Language Aptitude Battery (PLAB)*. New York: Harcourt, Brace, Jovanovich.

Pinto, M. A. (1995). Three age-level metalinguistic abilities tests. Theoretical framework and description. *Italian–Canadian Linguistic Bulletin, Il Forneri, 1*, 3–28.

Plato (380 BC). Allegory of the Cave. *Republic*, 514a–520a.

Posner, G. J., Strike, K. A., Hewson, P. W., & Gertzog, W. A. (1982). Accommodation of a scientific conception: Toward a theory of conceptual change. *Science Education, 66*, 211–227.

Postman, L., & Stark, K. (1969). The role of response availability in transfer and interference. *Journal of Experimental Psychology, 79*, 168–177.

Prior, A. & Gollan, T. (2011). Good language-switchers are good task-switchers: Evidence from Spanish–English and Mandarin–English bilinguals. *Journal of the International Neuropsychological Society, 17*(4), 682–691. http://dx.doi.org/10.1017/s1355617711000580

Prior, A. & MacWhinney, B. (2010). A bilingual advantage in task switching. *Bilingualism: Language and Cognition, 13*(2), 253–262. http://dx.doi.org/10.1017/s1366728909990526

Prudent, L. F., Tupin, F., & Wharton, S. (Eds.). (2005). *Du plurilinguisme à l'école. Vers une gestion coordonnée des langues en contextes éducatifs sensibles* [From

plurilingualism to school. Towards a coordinated management of languages in sensitive educational contexts]. Berne: Lang.

Psaltou-Joycey, A, & Kantaridou, Z. (2009). Plurilingualism, language learning strategy use and learning style preferences. *International Journal of Multilingualism, 6*(4), 460–474.

Rampillon, U. (2004). Learning strategies for the L2 to L3 threshold: the minimum profile. In B. Hufeisen & G. Neuner (Eds.), *The Plurilingualism Project: Tertiary Language Learning – German after English* (pp. 85–102). Strasbourg: Council of Europe Publishing.

Richardson, V. (1996). The role of attitudes and beliefs in learning to teach. In J. Sikula (Ed.), *Handbook of Research on Teacher Education* (2nd ed.), (pp. 102–119). New York: Macmillan.

Ringbom, H. (1986). Crosslinguistic Influence and the Foreign Language Learning Process. In E. Kellerman, & M. Sharwood Smith (Eds.), *Crosslinguistic Influence in Second Language Acquisition* (pp. 150–162). New York: Pergamon.

Ringbom, H. (1987). *The Role of the First Language in Foreign Language Learning*. Clevedon: Multilingual Matters.

Ringbom, H. 2001. Lexical Transfer in L3 Production. In J. Cenoz, B. Hufeisen & U. Jessner (Eds.), *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 59–68). Clevedon: Multilingual Matters.

Rivers, W. P. (2001). Autonomy at all costs: an ethnography of metacognitive self-assessment and self-management among experienced language learners. *The Modern Language Journal, 85*(2), 279–290.

Robinson, P. (1995). Aptitude, awareness, and the fundamental similarity of implicit and explicit second language learning', in R. Schmidt (Ed.), *Attention and Awareness in*

Foreign Language Learning (pp. 303–357). University of Hawaii at Manoa: Second Language Teaching & Curriculum Center.

Rokeach, M. (1968). *Beliefs, attitudes, and Values: A Theory of Organization and Change*. San Francisco: Jossey-Bass.

Rost-Roth, M. (2004). The promotion of intercultural competence in tertiary language teaching: German after English. In B. Hufeisen & G. Neuner (Eds.), *The Plurilingualism Project: Tertiary Language Learning – German after English* (pp. 51–84). Strasbourg: Council of Europe Publishing.

Roulet, E. (1980). *Langue maternelle et langues secondes: vers une pédagogie intégrée* [Mother tongue and second languages: towards an integrated pedagogy]. LAL, Crédif, Hatier: Paris.

Safont Jordà, M. P. (2005). *Third Language Learners. Pragmatic Production and Awareness*. Clevedon: Multilingual Matters.

Seidlhofer, B. (1996). "It is an undulating feeling . . .": The importance of being a non-native teacher of English. *Vienna English Working Papers, 5*(1&2), 74–91.

Seidlhofer, B. (2001). Closing a conceptual gap: The case for a description of English as a lingua franca. *International Journal of Applied Linguistics 11*, 133–158.

Seidlhofer, B. (2004). Research perspectives on teaching English as a lingua franca. *Annual Review of Applied Linguistics, 24*, 209–239.

Seidlhofer, B. (2005). Key concepts in ELT: English as a lingua franca. *ELT Journal, 59*(4), 339–341.

Seidlhofer, B. (2009). Common ground and different realities: World Englishes and English as a lingua franca. *World Englishes 28*(2), 236-245.

Seidlhofer, B. (2011). *Understanding English as a lingua franca.* Oxford: Oxford University Press.

Sendan, F., & Roberts, J. (1998). Orhan: A case study in the development of a student teachers' personal theories. *Teachers and Teaching: Theory and Practice, 4*, 229–244.

Sharwood Smith, M. (1994). *Second Language Acquisition: Theoretical Foundations*. London: Longman.

Shavelson, R. J., & Stern, P. (1981). Research on teachers' pedagogical thoughts, judgments, decisions, and behavior. *Review of Educational Research, 51*, 455–498.

Singer, E. (1996). Espoused teaching paradigms of college faculty. *Research in Higher Education, 37*, 659–679.

Singh, R. & Carroll, S. (1979). L1, L2 and L3. *Indian Journal of Applied Linguistics 5*, 51–63.

Singleton, D. (1987). Mother and other tongue influence on learner French: A case study. *Studies in Second Language Acquisition, 9*, 327–346.

Skehan, P. (1989). *Individual Differences in Second-Language Learning*. London: Edward Arnold.

Smith, E. (2015). *Teachers' perspectives on plurilingualism in the French Immersion Program* (Unpublished master's dissertation). Retrieved from https://tspace.library.utoronto.ca/bitstream/1807/68761/1/Smith_Emily_C_H_201506_MT_MTRP.pdf

Spöttl, C. & Hinger, B. (2001). *A multilingual approach to vocabulary acquisition*. Retrieved from http://www.inomedia.at/papers/spoettl_hinger/data/index.html

SPSS. (2008). *Statistical Package for the Social Sciences* (17.0 for Windows) [Computer software].

Stern, P., & Shavelson, R. J. (1983). Reading teachers' judgments, plans, and decision making. *The Reading Teacher, 37*, 280–286.

Swan, A. (2012) *Learning from multilingual teachers of English (*Ph.D. thesis). Canterbury Christ Church University.

Székelyi, M., & Barna, I. (2002). *Túlélőkészlet az SPSS-hez: Többváltozós Elemzési Technikákról Társadalomkutatók Számára* [Survival kit for SPSS: multivariate analysis techniques for social researchers]. Budapest: Typotex.

Talamas, A., Kroll, J. F., & Dufour, R. (1999). From form to meaning: Stages in the acquisition of second language vocabulary. *Bilingualism: Language and Cognition, 2*, 45–58.

Thomas, J. (1988). The role played by metalinguistic awareness in second and third language learning. *Journal of Multilingual and Multicultural Development, 9*, 235–246.

Thompson, A. S. (2013). The interface of language aptitude and multilingualism: Reconsidering the bilingual/multilingual dichotomy. *Modern Language Journal, 97*, 685–701.

Tschoumy, J.-A. (1983). *Pédagogie intégrée de la langue maternelle et des langues secondes* [Integrated pedagogy of mother tongue and foreign languages]. Neuchâtel: IRDP.

United Nations Educational, Scientific and Cultural Organization. (2004). *Education for All – The Quality Imperative*. Paris: UNESCO.

Urmston, A. (2003). Learning to teach English in Hong Kong: The opinions of teachers in training. *Language and Education, 17*(2), 112–137.

Vaish, V. (2012). Teacher beliefs regarding bilingualism in an English medium reading program. *International Journal of Bilingual Education and Bilingualism, 15*(1), 53–69.

Van Gelderen, A., Schoonen, R., De Glopper, K., Hulstijn, J., Snellings, P., Simis, A., & Stevenson, M. (2003). Roles of linguistics knowledge, metacognitive knowledge and

processing speed in L3, L2 and L1 reading comprehension: a structural equation modelling approach. *International Journal of Bilingualism, 7*(7), 7–25.

Verloop, N., Van Driel, J., & Meijer, P. C. (2001). Teacher knowledge and the knowledge base of teaching. *International Journal of Educational Research, 35*(5), 441–461.

Walberg, H. (1977). Decision and perception: New constructs for research on teaching effects. *Cambridge Journal of Education 7*(1), 12–20.

Wallace, M. J. (1991). *Training Foreign Language Teachers: A Reflective Approach*. Cambridge: Cambridge University Press.

Waters, A., Sunderland, J., Bray, T. & Allwright, J. (1990). Getting the best out of 'the language-learning experience'. *ELT Journal, 44*(4), 305–315.

Weinreich, U. (1953). *Languages in Contact*. The Hague: Mouton.

Wenden, A. (1998). Metacognitive knowledge and language learning. *Applied Linguistics, 19*, 515–537.

Whitney, W. (1881). On mixture in language. *Transactions of the American Philological Association, 12*, 5-26.

Widdowson, H. G. (1994). The ownership of English. *TESOL Quarterly, 28*(2), 377–389.

Widdowson, H. G. (1997). EIL, ESL, EFL: global issues and local interests. *World Englishes 16*(1), 146–153.

Widdowson, H. G. (2003). *Defining Issues in English Language Teaching*. Oxford: Oxford University Press.

Williams, S. & Hammarberg, B. (1998). Language switches in L3 production: Implications for a polyglot speaking model. *Applied Linguistics 19*(3), 295–333.

Wilton, A. (2009). Multilingualism and foreign language learning. In K. Knapp & B. Seidlhofer (Eds.), *Handbook of Foreign Language Communication and Learning* (pp. 45–77). New York: Mouton de Gruyter.

Wokusch, S. (2008). Didactique integrée des langues: la contribution de l'école au plurilinguisme des élèves [Integrated didactic approach for languages: the contribution of schools to students' plurilingualism]. *Babylonia, 1*, 12–14.

Wokusch, S., & Lys, I. (2007). Überlegungen zu einer integrativen Fremdsprachendidaktik [Reflections on an integrative foreign language pedagogy]. *Beiträge zur Lehrerbildung, 25*(2), 168–179.

Wong, P. L., Murai, H., Bérta-Ávila, M., William-White, L., Baker, S., Arellano, A., & Echandia, A. (2007). The M/M Center: Meeting the demand for multicultural, multilingual teacher preparation. *Teacher Education Quarterly, 34*(4), 9–25.

Woods, D. (1996). *Teacher Cognition in Language Teaching*. Cambridge: Cambridge University Press.

Ytsma, J. (2001). Towards a typology of trilingual primary education. *International Journal of Bilingual Education and Bilingualism 4*(1), 11–22.

Appendix A – Final Questionnaire in English

(items followed by * are old items from initial stage)

Multilingual students and the teacher of LANGUAGE

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS STUDY.

The average length of the questionnaire is 15-20 minutes. It is divided into six sections/pages, which you will discover progressively when clicking on the button "Continue" at the bottom of each page. While questions in sections 1 and 6 may require a bit more of elaboration, all the questions in sections 2 to 5 are easily answered by selecting your response in a 1-to-5 scale.

Introduction
1. General questions (7 questions)
2. Multilingualism in the LANGUAGE classroom (15 questions)
3. Teachers of multilingual students (25 questions)
4. Multilingual students (17 questions)
5. Teachers with previous experience learning other languages (17 questions)
6. General background details (6 questions)
   Final thank you

Participation in this study is completely voluntary and anonymous. However, at the end of the questionnaire you will have the chance to leave your email address if you wish to receive the results of this study, or if you would be willing to participate in a potential round of interviews about this same topic in the future.

THANK YOU VERY MUCH AGAIN FOR YOUR PARTICIPATION.

PAGE 1 – GENERAL QUESTIONS

1. **Which of the following statements best describes your students' prior experience learning foreign languages?**
   When they start learning LANGUAGE,
   Most of my students only know their mother tongue.
   Most of my students already know or have studied one other foreign language.
   Most of my students already know or have studied at least two other foreign languages.

2. **Which of the following statements best describes your students in terms of their mother tongue?**
   A/All or most of my students share a common mother tongue.
   B/ My students do not share a common mother tongue.

   If you selected statement A ("All or most of my students share a common mother tongue") in the previous question, please specify now YOUR current level in your students' mother tongue. (circle ONE)
   None

A1 - Beginner
A2 – Elementary
B1 - Lower intermediate
B2 - Upper intermediate
C1 - Advanced
C2 - Proficiency
Native

3. Is LANGUAGE your mother tongue?
Yes.
No.

4. Did you grow up as a bilingual/trilingual/multilingual child?
No.
Yes, I grew up as a bilingual child with two mother tongues.
Yes, I grew up as a trilingual child with three mother tongues.
Yes, I grew up as a multilingual child with more than three mother tongues.

5. How many foreign languages have you learnt or studied? (circle ONE)
Please include here EVERY FOREIGN LANGUAGE that you have learnt or studied at some point in your life. This includes LANGUAGE too if it is not your mother tongue. Please do NOT include your mother tongues(s).

1 2 3 4 5 6 7 8 9 10 more than 10

Please specify your proficiency level in each of these foreign languages.

	A1 - Beginner	**A2 - Basic**	**B1 – Lower intermediate**	**B2 – Upper intermediate**	**C1 - Advanced**	**C2 - Proficient**
Foreign language 1						
Foreign language 2						
Foreign language 3						
Foreign language 4						
Foreign language 5						
Foreign language 6						
Foreign language 7						
Foreign language 8						
Foreign language 9						
Foreign language 10						

PAGE 2 – Multilingualism in the LANGUAGE classroom

This section focuses on YOUR opinion about the use of other languages in the LANGUAGE classroom. Please, remember that there are not right or wrong answers, YOUR opinion is what matters the most.

Using other foreign languages in the classroom IS JUSTIFIED:

Strongly disagree _____ x _____ x _____ x _____ x _____ Strongly agree

To explain when meanings in LANGUAGE are unclear*
To speed up the language learning process*
To help students get used to switching from one language to another
To explain nuances in the meaning of words
To encourage positive transfer from the other languages into LANGUAGE*
To help students develop as multilingual individuals
To explain the use of certain grammatical structures
To reactivate students' passive knowledge of LANGUAGE through the other languages
To help students become successful communicators across all their languages
To help students find the best translation for terms and expressions
To help learners relate new LANGUAGE-language knowledge to their knowledge in other languages*
To prepare students for real life situations where code-switching may be necessary
To explain aspects of the language that otherwise would not be understood
To help students realise the similarities and differences between LANGUAGE and the other languages
To help students develop their ability to interact in settings where more than one language is used

PAGE 3 – Teachers of multilingual students

This section focuses on the training that YOU consider advisable for teachers who work with groups of students who have previous knowledge of other foreign languages. Remember that there are not right or wrong answers, what matters here is YOUR opinion.

How important do you consider that the following aspects are in the training of teachers of multilingual students?

Not important at all _____ x _____ x _____ x _____ x _____ Extremely important

Knowledge about the general characteristics of other foreign languages*
Specialised training in teaching second languages*
Personal experience learning foreign languages*
Familiarity with current research in second language teaching and learning
To have experienced the difficulty of learning a foreign language
Personal experience communicating in one or several foreign languages
Specialised training in teaching third languages*
Knowledge of the students' mother tongue
Familiarity with the different methods of second language teaching
To have successfully learnt a foreign language
Familiarity with current models of multilingualism
Personal experience interacting in multilingual settings
Familiarity with the theories of third language acquisition and learning*
Knowledge of the other foreign languages their students know
Continuous in-service training on second language didactics
To have learnt LANGUAGE as a foreign language
Personal experience in code-switching

Basic knowledge of several foreign languages
Familiarity with the practical aspects of third language teaching and learning
Personal experience mediating between speakers of different languages
Familiarity with the theories of second language acquisition and learning*
Advanced knowledge of at least one foreign language
To have gone through the ups and downs of learning a foreign language
Personal experience negotiating meanings between speakers of different languages
Familiarity with current research in third language teaching and learning

PAGE 4 – Multilingual students

The aim of this section is to discover YOUR opinion about the students who arrive at the LANGUAGE classroom with previous knowledge of other foreign languages. Remember that there are not right or wrong answers, what matters here is YOUR opinion.

In comparison with other learners of LANGUAGE, multilingual learners…

Strongly disagree _____ x _____ x _____ x _____ x _____ Strongly agree

Have a special aptitude to learn languages*
Are more autonomous learners*
Compare LANGUAGE lexical items to those of other languages*
Make different mistakes*
Have an advanced practical knowledge of language learning processes*
Evaluate more carefully the teacher's contribution to their learning*
Use grammatical structures borrowed from other languages*
Have a special ability to deduce the rules governing the linguistic system
Confuse linguistic elements between languages*
Manage their own learning more efficiently
Have more advanced cognitive skills for language learning*
Ask for clarification in another language*
Depend less on the teacher*
Compare LANGUAGE grammar to the grammar of other languages*
Have a greater sensitivity to recognise the grammatical functions of words
Are more willing to take responsibility for their own learning process
Make up new lexical items in LANGUAGE (correct or incorrect) based on their knowledge of other languages*

PAGE 5 – Teachers' own experience learning foreign languages

This last section aims at discovering YOUR opinion about the teachers' previous experience learning foreign languages, and about its influence in their teaching practices. Again, please remember that there are not right or wrong answers, and that the only thing that matters here is YOUR opinion.

The teachers' previous experience learning and studying foreign languages will allow them to be able to…

Strongly disagree _____ x _____ x _____ x _____ x _____ Strongly agree

Empathise with their students when they are struggling *
Anticipate difficulties more easily *
Motivate their students*
Recognise more easily the students' different learning styles*
Promote comparisons between the different languages
Transmit more positive experiences about the language learning process*

Understand better the learning process that their students are going through*
Plan better their explanations *
Link new linguistic structures to other languages that students know
Share personal experiences of successful interaction in multilingual situations
Guide their students more confidently through the language learning process*
Understand quicker why students are making certain mistakes*
Explain how they managed to overcame challenges while learning foreign languages
Anticipate what aspects of the language will be particularly easy for students
Unconsciously become a model of successful language learning for their students*
Base their explanations on the differences and similarities between linguistic systems*
Understand better how their students may differ in their approaches to learning*

PAGE 6 – GENERAL BACKGROUND QUESTIONS

1. **Gender:** Male Female

2. **Age:** _______

3. **Country where you work:** __________________

4. **Type of school/institution where you teach LANGUAGE most often:** (circle ONE)
   Primary school
   Secondary school
   University
   Private language school (*Academia*)
   Cervantes Institute
   Other (please specify)

5. **Age of learners you teach most often:** (circle ONE)
   6-11 12-17 18-23 24-49 50+

6. **Level of LANGUAGE of the learners you teach most often:** (circle ONE)
   Beginner (A1-A2) Intermediate (B1-B2) Advanced (C1-C2)

7. Academic qualifications
Please, choose the options that best describe your profile.

	LANGUAGE/Hispanic Studies/Linguistics	**Other foreign languages/ Translation/Interpreting**	**Teaching LANGUAGE as a foreign language**	**Pedagogy/Education**	**Other**
Certificate/diploma/course					
Bachelor degree/BA/BSc					
Master/MA/MSc					
PhD					

8. Experience as a languages teacher:

	No experience at all	Less than a year	1-5 years	6-10 years	11-20 years	More than 20 years
Teaching LANGUAGE as a foreign language						
Teaching other foreign languages						

(PAGE 7) THANK YOU VERY MUCH!

This is the end of the questionnaire. THANK YOU VERY MUCH FOR YOUR TIME AND YOUR PARTICIPATION.

Please, DO NOT FORGET TO CLICK ON THE BUTTON "SUBMIT" AT THE END OF THIS PAGE so all your answers can be recorded in the system.

As indicated at the beginning of the questionnaire, if you would like to receive a summary of the results of this study, or if you would be interested to participate in an interview about this topic in the future, please leave your email address in the space provided below.

____

Please, specify on what purpose we are authorised to contact you on this email address.
___ I would like to know the results of this study.
___ I would be interested to participate in an interview about this topic.

Your answers have been recorded successfully.

THANK YOU VERY MUCH FOR YOUR PARTICIPATION! :-)

Appendix B – Screenshot of the Online Questionnaire

Los estudiantes multilingües y el profesor de ELE

* Required

3. LOS ESTUDIANTES MULTILINGÜES

Esta sección busca conocer TU opinión sobre los alumnos que llegan a la clase de español con conocimientos previos de otros idiomas extranjeros. Por favor, recuerda que no hay respuestas correctas o incorrectas, lo que cuenta es TU opinión.

En comparación con otros estudiantes de español, los alumnos multilingües... *

	Totalmente en desacuerdo	>>	>>>	>>>>	Totalmente de acuerdo
Tienen una aptitud especial para aprender idiomas	○	○	○	○	○
Son estudiantes más autónomos	○	○	○	○	○
Comparan unidades léxicas del español con las de otros idiomas	○	○	○	○	○
Cometen errores diferentes	○	○	○	○	○
Utilizan más estrategias de aprendizaje de idiomas	○	○	○	○	○

Appendix C – Design, Piloting and Validation of the Questionnaire

Pilot 1: From Concepts to Scales

Initial building and translation of the questionnaire

The first step in this study was to conduct a thorough review of existing works in multilingualism and TLA. From this review, the theoretical framework was established, and the three main areas within TLA that needed to be investigated. Within each area, a number of relevant constructs were identified from literature and operationalised through a minimum of two items aimed at describing each construct. These items were extracted from claims made by researchers in multilingualism and TLA, and in many cases from previous qualitative studies (as advised by Dörnyei, 2010).

After pooling the items, they were submitted to expert judgement on three different occasions, with experts in language education and questionnaire research studies advising on ways to improve the wording of the items and the presentation of the overall questionnaire. The socio-demographic questions were also discussed at this stage. Once the questionnaire was in its definitive form, it was translated into Spanish, back-translated into English, and the result discussed by both translators until any discrepancies were identified and resolved. The Spanish questionnaire was then uploaded to Google forms, and a think-aloud protocol was conducted with a teacher of Spanish as an L3 as she completed the online questionnaire. This led to a few minor changes, particularly in the presentation of the questionnaire in its online form, after which the instrument was ready for piloting with a total of 78 questions.

Validation of the scales

A small pilot study was conducted to validate the scales used in the questionnaire that is, to ensure that the items did indeed measure the constructs they were intended to measure, and that any variance in the participants' answers was due to their different opinions and not to other sources of error external to the latent variable (DeVellis, 2003). The questionnaire

was distributed by email to different Spanish teacher associations and language centres in Hungary, Slovenia, Slovakia, Romania, Cyprus, Italy and Bulgaria. A total of 61 teachers filled in thins initial questionnaire over a period of three weeks. According to Dörnyei (2007), this is an acceptable size for a pilot study (Dörnyei, 2007).

The responses were extracted in Microsoft Excel format and fed into SPSS 17.0 for statistical analysis. Item variance was investigated to ensure that participants had used the whole range of responses for each item, and item-scale correlations were also computed to confirm that the items within each scale were highly correlated to each other (DeVellis, 2003). Non-rotated principal component analysis showed that the items in each construct constituted a unidimensional set, without any hidden underlying dimension that could distort the results (DeVellis, 2003). The internal consistency reliability coefficient Alpha was calculated for each construct, with all values above the 0.6 threshold (DeVellis, 2003), as shown in Table 1, which meant that the items proved to be successful measures of the constructs they intended to measure. However, many constructs were only measured by two or three items, below the recommended minimum of four items per construct (DeVellis, 2003).

Table 1

Cronbach's alpha values for the constructs in Pilot 1.

Constructs	Cronbach's alpha
Explain vocabulary and grammar (3 items)	.751
Save time (3 items)	.918
Class management and interaction (4 items)	.758
Translation (3 items)	.645
Relating to previous knowledge (3 items)	.866
Knowledge of other foreign languages (3 items)	.680
Training in L2 teaching (2 items)	.763
Training in L3 teaching (2 items)	.934
Understand new lexical and grammatical structures quicker (3 items)	.851
Learn by comparing to other foreign languages (5 items)	.780
Make different errors (2 items)	.655

Use of language learning strategies (5 items)	.841
Students' expectations of the teacher (3 items)	.836
Aptitude (3 items)	.822
Autonomy (3 items)	.849
Understand the language learning process (6 items)	.829
Foresee difficulties and mistakes (4 items)	.722
Motivate (3 items)	.846

Pilot 2: Revision, Translation and Second Validation of the Questionnaire

Theoretical revision: redesigning the instrument

The reduced number of items in some scales, together with certain concern about the theoretical underpinnings of some constructs in view of the initial results, made it necessary to review and redesign the instrument. Findings from further literature were incorporated, some constructs were dropped while others were added to keep the questionnaire within reasonable length, and every construct was measured by at least five items to make sure that even if one of these items had to be dropped the construct would still be reliably measured.

Translating the instrument into Spanish, French and German

The questionnaire was developed and reviewed in English, and then translated into Spanish, French and German. The Spanish translation from Pilot 1 was partially reused and amended, with all new or revised questions following the same translation process as for the other languages. The translation process involved four different people for each language, and the steps followed included translation, back-translation, and several review stages, as explained in Table 2.

Table 2

Steps in the translation process for each language.

	Step	Person	Tasks
1	Translation	Person 1 – professional translator	Translating from English into the target language i.e., Spanish, French or German.
2	Initial review	Person 2 – native speaker of the target language, not necessarily with teaching experience	Identifying obvious translation issues, linguistic mistakes, strange collocations.

3	Back-translation	Person 3 – native speaker of English, not necessarily with teaching or translating experience	Translating from the target language back into English.
4	Second review	Person 1	Considering all the comments and corrections, in discussion with person 2 and 3, and to amend the translation accordingly.
5	Final review of the online questionnaire	Person 4 - native-speaker teacher of the concerned language, in every aspect similar to the target population	Adding both linguistic and formatting comments, i.e., all the options display correctly, the right terminology is used, etc. This last review works almost like a think-aloud protocol, with the reviewers commenting on issues and general impression while filling in the form.

After the three language versions of the questionnaire had been finalised, a last check was done by a person with an advanced understanding of the three languages. This person looked at all the items one by one across the three languages with goal to identify any potential differences in meaning between the three language versions which could be due to translators and reviewers' different understandings of the concepts. Several minor suggestions were incorporated from this last linguistic check before the three language versions of the questionnaire were finalised.

Validating the reviewed questionnaire in the three languages

The questionnaire was piloted in Spanish, French and German in spring 2014. A total of 153 responses were recorded (Spanish, n=51; French, n=22; German, n=80) from L3 teachers in over 20 countries, mainly in South America, Africa and Asia. These countries were targeted to avoid overlapping with the intended target population of the main study i.e., L3 teachers in Europe.

The responses were analysed following the same procedures as in Pilot 1, and the Cronbach's Alpha values for all the constructs in the three languages are shown in Table 3. Only one significant issue was detected in the French questionnaire (*Training in L2 teaching*,

Cr. α =.552), which helped identify a translation issue in one of the items. The rest of the constructs reached acceptable levels of internal consistency reliability and, therefore, reliable measures for the constructs.

Table 3

Cronbach's alpha values for all the constructs in Spanish, French and German.

Constructs	Cronbach's alpha values		
	Spanish	French	German
Section 1 - Use of other languages in L3 learning			
1) Explaining grammar and vocabulary (5)	.855	.807	.835
2) Promoting crosslinguistic transference (5)	.867	.781	.827
3) Helping students become multilingual individuals (5)	.904	.926	.922
Section 2 – Important elements in the training of L3 teachers			
1) Knowledge of foreign languages (5)	.739	.705	.695
2) Training in L2 teaching (5)	.951	**.552**	.822
3) Training in L3 teaching (5)	.940	.893	.836
4) Experience learning foreign languages (5)	.716	.676	.843
5) Experience using foreign languages (5)	.864	.768	.826
Section 3 – Specific learning characteristics of the L3 learner			
1) Aptitude (5)	.833	.814	.825
2) Autonomy (5)	.827	.855	.867
3) Influence and use of other FLs (7)	.840	.778	.857
Section 4 – Role of teachers' own experience learning foreign languages in their teaching			
1) Experience learning foreign languages (5)	.870	.874	.832
2) Knowledge of foreign languages (7)	.905	.912	.940
3) Motivate (5)	.889	.760	.882

Despite the good reliability of the final questionnaire in the three languages (Appendix A for the English version of it), a final revision was conducted and some items were added, deleted or modified to ensure construct and content validity, and the clarity of the items' wording. Any new or modified items were translated following the procedure in Table 2 above, and were considered in the final analysis only if they proved to contribute positively to the construct they were intended to measure.