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Translanguaging and Scaffolding Strategies: A Case Study in a Primary Bilingual Classroom

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Abstract

This study aimed at investigating when, and for which purposes, teachers and children translanguaged (by using their unique repertoire composed of English and Portuguese linguistic and multimodal features) in a third-grade classroom in a private bilingual school in northern Portugal. It also aimed at highlighting effective scaffolding strategies developed by the teachers in the Natural and Social Sciences (NSS), and English Language (EL) lessons. Classroom observations were conducted for a six-month period. Data was collected through participant-observation, using a single case study design with multiple embedded units of analysis (Yin, 1994). Data analysis was performed qualitatively through the analysis of language use in fieldnotes from classroom observations, audio recordings of NSS and EL lessons, and a pupil survey and through content analysis (Bardin, 1977/2011) for teachers' written reflections. A total of 27 categories were derived under different types of translanguaging and scaffolding strategies used by both by the teachers and the pupils. It was found that translanguaging was used both for the teaching of content and to establish communication (Nikula & Moore, 2016), and it was both teacher-directed (Lewis et al., 2012b) and pupil-directed (Lewis et al., 2012a). This study contributes to scholarship by shedding light on previously known and new translanguaging and scaffolding strategies used by teachers for pupils' bilingual development and used by pupils themselves. Findings have implications for educators when considering how translanguaging can be used as a pedagogical tool in Content and Language Integrated Learning (CLIL) classrooms.

Keywords: Language use; bilingual education; CLIL; translanguaging; scaffolding.

Translanguaging and Scaffolding Strategies: A Case Study in a Primary Bilingual

Classroom

The role of teachers in the bilingual and biliterate development of children has been the object of many studies over the years. Around the world, various bilingual programs and teaching pedagogies have been implemented to ensure that children leave school speaking more than one *named language.*[1] The Council of Europe's Common European Framework of Reference for Languages (CEFR, 2001) set out the ambitious objective that all young Europeans finishing upper secondary education should have a good knowledge of at least two languages in addition to the language of schooling. For that to happen, different approaches to language teaching have been employed in Europe. More specifically, in Portugal, Content and Language Integrated Learning (CLIL) has been implemented in a small number of public schools across the country by way of the Bilingual Schools Programme (PEBI).[2] Many private schools have also adopted CLIL and other bilingual teaching pedagogies in their classrooms.[3] For Cenoz & Gorter (2017), "there is a need to identify effective classroom pedagogies in language learning within CLIL programs" (p. 281); yet, in Portugal, little research has been done with regards to the language practices of teachers and children within such classrooms.

There are many factors that affect language choice and use in bilingual programs, such as curriculum development, the pedagogical model, the children's language abilities, the socio-political context and/or the subject at hand, which will be further explored in the sections that follow. While many of us today are multilingual, figures differ according to geographical

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[1] According to Makoni and Pennycook (2007), a named language, which is typically identified with nation-states, refers to such social categories as 'Arabic', 'Bulgarian', 'English', 'French', 'Igbo', 'Spanish', 'Swahili', etc. The term will be further discussed in the literature review section.

[2] For the purposes of this study, a public school involved in the PEBI was initially listed as a research site. However, due to the covid-19 pandemic, data could not be collected. Thus, this report will not include information on the programme. It is mentioned here to offer some context on where CLIL has been implemented in Portugal.

[3] The difference of public versus private schools in Portugal will de described in the methods section.

regions. Bialystok et al (2012) cite the 2010 US Census Bureau: "It is generally believed that more than half of the world's population is bilingual" (p. 241). According to the report "Europeans and their Languages," in 2012 just over half of Europeans (54%) were able to hold a conversation in at least one additional language, a quarter (25%) were able to speak at least two additional languages and one in ten (10%) were conversant in at least three. Although the Eurostat's (2014) statistics on foreign language learning in primary school "indicate an overall positive trend for early access to language learning, the EU education systems do not seem to be able to deliver the desired outcomes" (Staring & Broughton, 2020, p. 4), which include competence in these foreign languages. The reasons behind this are not straightforward. Language use and language choice are significant aspects of children's lives today as they need to learn how to communicate in different settings, including bilingual classroom settings. This points to an important factor in the teaching and learning of languages in Portugal, which is the fact that there is a dearth of documentation and dissemination of effective pedagogical practices for bilingual teaching in Portugal.

This study reports on data from a third-grade classroom in a private bilingual school in northern Portugal. It aimed at investigating when, and for which purposes, teachers and children translanguaged in this classroom, and it also aimed at spotlighting effective scaffolding strategies used by the teachers and the pupils. To that end, two school subjects were observed: Natural and Social Sciences (NSS) and English Language (EL) classes. In order to observe the strategic communicative practices within this classroom, observations took place once a week for a period of approximately six months, totaling 19 visits. The duration of data collection (i.e. six months) was important as in this study it was expected that as bilingual skills developed, the purposes for and ways in which translanguaging and scaffolding were used would change over time (Nikula

& Moore, 2016). Thus, the review of literature offers a brief overview of some important concepts that directly impact the teaching and learning of languages in bilingual programs: (i) Bilingualism and CLIL and (ii) translanguaging and scaffolding strategies.

2. Literature Review

2.1 Definitions of bilingualism and bilingual education

The number of bilingual programs has been growing steadily in Europe and elsewhere in recent decades (Eurydice, 2017). The Barcelona European Council of March 2002 put forth the early introduction of second and foreign languages in order to "improve the mastery of basic skills in at least two foreign languages" (Eurydice, 2017, p. 11). Within this framework, it is imperative to situate bilingual education, which for Valdés, Poza and Brooks (2017) is "concerned with the acquisition and development of two [or more] languages, for the teaching of subject-matter content, at the same time that it is engaged in inculcating the set of skills and knowledge that the young are expected to develop in that society" (p. 56). The teaching of such named languages can occur in a variety of ways as currently there are various types of bilingual programs and approaches to language teaching. Furthermore, there is "a strong inherent hierarchy of languages present in schools, attributing greater value to some languages compared to others (typically, majority or dominant languages are placed higher in this hierarchy than minority or non-dominant languages)" (Pichon-Vorstman et al, 2020, p. 33), and speakers of different named languages are perceived differently given the power hierarchy embedded in those languages.

While for Makoni and Pennycook (2007) the main issue is that named languages compose a colonial agenda and should be seen as social and political constructs, for García and colleagues (García & Otheguy, 2019; Otheguy et al., 2015) the consequences of the

sociopolitical nature of named languages relate precisely to individuals, and not to groups. Thus, whereas still seeing discrete languages as limited to the political domain, Otheguy et al. (2015) state that named languages:

> have nothing to do with individuals when seen from their own internal linguistic
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> perspective, categories that have nothing to do, that is, with the billions of the world's
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> idiolects, which exist in a separate, linguistically unnamed and socially undifferentiated
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> mental realm. (p. 293)

Although adopting García & colleagues' perspective, and while named languages are seen as static, standardized competencies one might acquire, in the current study they are used to differentiate between the two languages used by its participants (i.e. English and Portuguese). As such, it goes beyond the political boundaries associated with them and reveals an intricate and unique linguistic and multimodal repertoire used by the speakers, independent of the power hierarchy embedded in those languages.

Such conceptions of the nature of bilinguals (or how they are perceived) and definitions of bilingualism are always evolving. For García (2009), a dynamic view of bilingualism defines languages as not being static, where children growing up with or learning new languages are considered as emergent bilinguals. In an ever-changing and evolving manner, a child's linguistic repertoire adapts over time, depending on factors such as context, purpose, or their interlocutors (Baker & Lewis, 2017). A bilingual "languages" or *translanguages* [emphasis added] differently since his or her experiences with each language is unequal (García & Beardsmore, 2009, p. 45). There are a range of factors which influence children's bilingual development, such as their funds of knowledge (Gonzaléz et al., 2005; Moll, Amanti, Neff, &, 1992; Moll & González, 1994; Moll, 2014). The research on funds of knowledge, which started over 25 years ago,

focuses primarily on the literacy education of Latino, mostly Mexican American, children in the U.S. Southwest (Moll, 1990). Similar to González et al. (2005), Feller (2015) used the term funds of knowledge to refer to the "historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being" (p. 133) in her research on bilingual Indigenous[4] children in Brazil. These funds of knowledge play an important role in the development of bilingualism for young children, and together with other factors, such as the bilingual education approach used by schools, are considered as pedagogical tools.

One of the main approaches to bilingual education used in Europe is Content and Language Integrated Learning (CLIL). CLIL, as defined by Marsh (2002), is:

> a generic umbrella term which would encompass any activity in which a foreign language is used as a tool in the learning of a non-language subject in which both language and the subject have a joint curricular role in the domain of mainstream education, pre-schooling and adult lifelong education. (p. 58)

CLIL most resembles the description of "dynamic" bilingualism (García, 2009), where pupils develop a unique linguistic repertoire by adding features from their multiple languages without the need to have equal competence in them. Pupils, also, are not expected to "reach the language proficiency levels of those in bilingual education which aim at native-like competence" and "such competence is not a goal for learners nor is it a pre-requisite of teachers involved in CLIL" (Ellison, 2014, p. 50). This dynamic view of bilingualism in CLIL turns the attention to the crucial role of language(s) in understanding CLIL pedagogy. According to Ellison (2014):

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[4] I mark the term "Indigenous" with a capital "I" to signify a "nationality parallel" (King & Benson, 2008, p. 343 as cited in McCarty & Nicholas, 2012).

Language is used as a tool for the transmission of content knowledge and an expression

of understanding and learning. In contrast to foreign language lessons where language is

the subject and aim, and curricula are designed to account for systematic progression in

language learning from easier to more complex grammatical structures, in CLIL, focus is

on the use of language. This ignores 'grammatical hierarchies' in favour of functional

exponents to express meaning. This perception may be problematic for language teachers

who are used to focusing on form in a systematic way. (p. 58)

The focus of a CLIL approach is on meaning-making, and its principles entail how

learning another language can enable deep learning to take place (Coyle, 2018). CLIL principles

demand that (a) "Instruction must be concerned with the experiences and the contexts that make

the student willing and able to learn;" (b) "Instruction must be structured so that it can be easily

grasped by the student;" and (c) "Instruction should be designed to facilitate extrapolation and or

fill in the gaps" (Marsh, 2006, as cited in Ellison, 2014, p. 58). When instruction is designed to

work within the pupil's zone of proximal development (i.e. "the distance between the actual

developmental level […] and the level of potential development […] under adult guidance, or in

collaboration with more capable peers" (Vygotsky, 1978, p. 86), deep learning occurs (when

there is optimization, integration and internalization of learning and that takes time, practice and

effort by the individual).

A CLIL approach goes "beyond traditional core foreign language programs in which the

language itself is the subject of instruction" (García & Otheguy, 2019, p. 6). Coyle et al. (2010)

affirm that "CLIL is not about 'translating' first-language teaching and learning into another

language" and that "integrative learning *through* a second or additional language is needed,

based on a conceptual theoretical framework" (p. 27). Teachers who adopt CLIL have to be very

clear about the concepts and the skills that they are trying to enable young people to have, and language as a learning tool should operate in three ways: *of, for and through* learning (Coyle, 2018). For Ellison (2014), this triptych consists of:

> Language of learning being related to the language of the subject content, its skills and concepts. Language for learning is that which supports the learning process such as that required of learners to discuss, analyse and synthesise content, apply concepts and articulate this within pairs or groups. Language through learning is that which learners articulate to express their understanding and create new meaning. (p. 61)

Language use is at the center of CLIL and is a focal point in a dynamic view of bilingualism as well. Understanding that language(s) play an important role when designing any type of bilingual instruction is crucial for teachers working with emergent bilinguals. In addition, teachers should also understand that focus should be turned to the meaning-making process rather than to the grammatical forms and hierarchical power of these languages. These relationships among language(s) will be further explored in the next section.

2.2 The role of translanguaging and scaffolding in pupils' language(s) development

The role of languages in bilingual settings is noteworthy given the purposeful attempts by teachers and children to use their unique multimodal and linguistic repertoire during classroom interactions and the instructional process (Feller & Vaughan, 2018). Language refers to "the widely distributed human capacity to relate to others and to communicate ideas through a semiotic (meaning-making) repertoire that includes linguistic features (words, sounds, structures, etc.) and multimodal features (such as gestures, images, sounds, etc.)" (García & Wei, 2018, p. 1). When these multimodal and linguistic features are seen as a continuum, teachers and pupils can draw from the various points of their development in order to make meaning and to use

language(s) in and out of the classroom. This symbiotic relationship among languages and the linguistic and multimodal features that compose them are highlighted through the concept of translanguaging.

Increasingly, researchers are focusing on studies on language use in bilingual and plurilingual settings to show the diversity of languages used in different contexts (Baker, 2011; Duarte, 2016; Feller & Vaughan, 2018; García, 2009; García & Wei, 2018; Kleyn & García, 2019; Lewis et al., 2012a, 2012b). Within these settings, translanguaging occurs in a variety of ways and for different purposes. Translanguaging is defined by Otheguy et al (2015) as "the deployment of a speaker's full linguistic repertoire without regard for watchful adherence to the socially and politically defined boundaries of named (and usually national and state) languages" (p. 281). Thus, translanguaging has challenged conventional concepts where bilingualism and multilingualism are seen as "simply the mastery of two or more languages from birth or as a result of an additive process" (Otheguy et al., 2019, p. 626). It is important, therefore, that one acquires competence to communicate in different degrees without the need to become fully proficient in each of their named languages. The focus is on being able to use language and to make meaning, and speakers can draw and navigate through their full linguistic and multimodal repertoire to do language.

Translanguaging is a distinct epistemological position on bi/multilingual practices that emerged from work on bilingual education, originally in the 1980s and 1990s (Williams, 1994), and then more fully developed in recent years (Baker, 2011; García, 2009). By translanguaging, learners appropriate new languaging that builds on their own linguistic repertoire through the acts of being, knowing and doing (Feller & Vaughan, 2018; García & Wei, 2017). These processes of meaning making are not clearly assignable to one 'code' or another (Grosjean,

1982). For García and Wei (2018), "while on the surface level, translanguaging and code-switching may look/sound similar, sociolinguists who adhere to a translanguaging theory consider the bilingual speaker as drawing from a dynamic and fluid repertoire that is not compartmentalized into two separate named languages" (p. 4). They also define code-switching as "the term given to what is seen as changing named languages within a sentence or between sentences" (p. 2). As in the current study language is not simply seen as "a set of structures or codes, but practices that are influenced by one's social interactions and context" (Kleyn & García, 2019, p. 2), the teachers and pupil's use of language is seen from a translanguaging framework rather than a code-switching perspective. Attention is focused on the internal perspectives of the speakers and their agency to select linguistic and multimodal features from their unique linguistic repertoire in order to make meaning of the content at their hands.

Translanguaging is thus composed of multiple discursive practices and requires learners to participate in deep plurilingual cognitive engagement. According to the Common European Framework of Reference for Languages (2001):

> A plurilingual approach [to language] emphasizes the fact that as an individual person's experience of language in its cultural contexts expands, from the language of the home to that of society at large and then to the languages of other peoples (whether learnt at school or college, or by direct experience), he or she does not keep these languages and cultures in strictly separated mental compartments, but rather builds up a communicative competence to which all knowledge and experience of language contributes and in which languages interrelate and interact. In different situations, a person can call flexibly upon different parts of this competence to achieve effective communication with a particular interlocutor. (p. 4)

As teachers see the potential of using their pupils' unique linguistic repertoires as resources and adapt their instruction under CLIL principles, translanguaging also becomes a resource in the classroom. For that, the term translanguaging has also been described as a pedagogical approach. García and Wei (2018) affirm that when translanguaging is used as a pedagogical tool:

> Translanguaging pedagogy insists in keeping both senses of language visible— the external one, the named language(s) that is the medium of instruction, and the internal one, the language repertoire of students. Whereas traditional pedagogy privileges the external named languages, translanguaging pedagogy privileges the internal language of learners. It does so by combining spaces/times where/when the named language is privileged, and spaces/times where/when students are given freedom to express themselves using their entire language repertoire. (p. 4)

As a pedagogical tool, translanguaging expands the zone of proximal development (Vygotsky, 1978). As language is used in a meaningful way, new linguistic features can be added to a pupil's repertoire even though instruction is given through a language unfamiliar to him. This process is done through a well-known strategy, scaffolding. The scaffolding metaphor is widely used in educational contexts to refer to "the support given to the learner so that learning becomes possible" (Ellison, 2014, p. 72). This support is usually given by a more capable peer, and as demonstrated in Feller's (2015) research on bilingual Indigenous children, even young peers can use scaffolding strategies to help older peers and even their teachers. Another important aspect of scaffolding is that it is "temporary, as once the skill is developed, the scaffold can be removed" (Ellison, 2014, p. 73). In this study, translanguaging is not seen as a scaffold, that is, using one's first language to learn a second or third language. That is because

pupils' languages are seen as a unique linguistic repertoire, and once a new named language is learned, it does not mean that the 'other' language is taken away. Thus, the temporary aspect of scaffolding in itself is not applied to the concept of translanguaging.

Translanguaging and scaffolding differ in the aspect that translanguaging is ever-present in a bilingual speaker's repertoire through the use of language(s) given his need to communicate, whereas scaffolding can be temporary and it involves the type of assisted teaching/learning that emphasizes interaction with peers and/ or teachers in moving learners from their existing level of performance to a level of independent performance. There are, for instance, scaffolding strategies that are used when translanguaging is seen as a pedagogical tool, and these strategies will be further discussed in the findings section. According to García and Otheguy (2019), "the focus of translanguaging pedagogy is on expanding the abilities of the speakers to do language in order to critically transact with texts and with others" (p. 12). When a speaker translanguages, "this translanguaging does not act as a scaffold to simply cross over to the majority language and majority culture" (Garcia & Otheguy, 2019, p. 15). Thus, even if speakers must recognize the power of named languages and their sociocultural constructs, they do not choose one language at the expense of the other. Translanguaging as pedagogy "focuses on building the agency of the learner to language in order to act and mean as a bilingual; it does not focus on exerting over students the power of named languages and the hierarchies they sustain" (Garcia & Otheguy, 2019, p. 15). Although speakers are aware of these power hierarchies, they do language in a fluid and unitary manner, by drawing from their linguistic and multimodal repertoire and they use language according to the context and their needs. Teachers and pupils use these scaffolding strategies in order to make meaning and to be understood and use translanguaging in between to the same end.

Whereas studies have explored the use of bilingual pedagogies within bilingual classroom settings, their focus has been primarily on teachers' discourse (Baker & Lewis, 2017). In this study, a stance is taken towards both teachers' and pupils' translanguaging practices. Stance is defined here as a belief that pupils' diverse linguistic practices are valuable resources to be built upon and should be leveraged in their education (García, Johnson & Seltzer, 2017). As stated by García and Wei (2017), "Translanguaging refers to the flexibility of bilingual leaners to take control of their own learning, to self-regulate when and how to language, depending on the context in which they are performing language" (p. 230). Lewis et al. (2012a) differentiate this type of translanguaging, called pupil-directed translanguaging, from teacher-directed translanguaging, which "involves planned and structured activity by the teacher and is related to translanguaging as a transformative pedagogy" (Lewis et al., 2012b, as cited in García & Wei, 2017, p. 233). Thus, pupil-directed translanguaging relates to the pupils' own use of their named languages, independently if translanguaging is elicited by the teacher or not. Teacher-directed translanguaging involves the instances where the teachers themselves translanguage, either for communicating or for delivering academic content. Nikula and Moore (2016) complement this distinction by defining different uses of translanguaging as "orienting to language in content or orienting to the flow of interaction" (p. 6). Nikula and Moore (2016) state that the former has an "explicit language focus – often clarifying lexis/terminology important for the content area in question – to scaffold meaning negotiation and the teaching and learning of content. The latter refers to instances of translanguaging which are unmarked, geared towards the flow of interaction" (p. 6). All of these types of translanguaging were taken into account during data analysis in the current study.

Additionally, these different types of translanguaging enlighten the uses of dynamic and unique linguistic and multimodal repertoires of teachers and children in classrooms. Given the fact that bilingual individuals "regularly and naturally engage in translanguaging," this phenomenon "has rarely been studied in the classroom and connected empirically with effective pedagogy" (Baker & Lewis, 2017, p. 123). This is even more prominent in Portugal, where very few studies have taken translanguaging as a pedagogical approach. According to Conteh (2018):

> Teachers who recognize the importance of translanguaging in constructing relationships with their learners that nurture mutual empowerment, and researchers who recognize this power and are committed to acknowledging its importance in their classroom-based investigations, together have the potential to develop translanguaging pedagogies in the future. (p. 446)

In many ways, the strong will from the teachers in this third-grade classroom, and the researcher, to empower the children to develop their bilingual competences is comparable with Conteh's study as will be seen in the sections that follow. Thus, the aims of this study are (i) to explore how translanguaging and scaffolding practices happened in a Content and Language Integrated Learning (CLIL)/ Bilingual classroom; (ii) to identify the teachers and learners' translanguaging strategies for languages use; and (iii) to reflect on the pedagogic implications of the use of these translanguaging and scaffolding strategies for practical use.

3. Methods

3.1 Research context

The study data was collected over a six-month period. During this time, the researcher, as a participant-observer, worked closely with teachers and pupils in a private bilingual third-grade classroom in an urban area in northern Portugal. Primary education, which is holistic and

organized by a cross-disciplinary ethos is called the 1st cycle of Basic Education (1º CEB) and it lasts for 4 years (starts at the age of 5 or 6 till the age of 10) (CLIL for Children, 2016). In Portugal, primary education is compulsory for all children. Private schools are one of the options and are paid (and not economically accessible to all pupils) whereas state-schools are free of charge. There are many differences in the way these types of schools are run; however, all of them must follow the curriculum guidelines established by the Ministry of Education. In basic education, besides offering a common general background education for all citizens, via the acquisition of fundamental knowledge and skills that allow further study, pupils may attend specialized artistic courses in the areas of music and dance. While these are optional, and many pupils who attend state-schools might not have them on offer, private schools diversify how they adapt the curriculum for their pupils. This private school offers CLIL provision where pupils (majority Portuguese speakers) associate the knowledge of their mother tongue with the acquisition of new skills and with the development of certain disciplinary and thematic contents that are transversal to all curricular areas through an additional language (English). This is applied in the Natural and Social Sciences (NSS) lessons which is taught through an additional language, English. They also have English language (EL) lessons as a curricular subject.

For the purposes of this study, both the NSS and EL lessons were observed once a week, totaling 19 visits (each visit lasted around 2 hours). The classroom has a generalist teacher (T2), and a teacher (T1) who administers the NSS and EL lessons. The school has a nursery, pre-school and elementary school (Up to 4th grade). Their bilingual program starts at the nursery level, where pupils have interactions related to daily routines, songs and stories that simultaneously promote emotional, cognitive, sensory and physical development, as well as reinforcing affective connections. At the pre-school level, daily routines play a major role, with

repetition, examples and experiences encouraging children to speak English. They also

encourage moments of play, games, stories, songs and dramatic expression to promote language

learning. In primary school, pupils are taught subject-content in the NSS classes through English.

The pupils develop their ability to use the English language as a tool to investigate, analyze and

describe the world around them by using their English repertoire in the CLIL lessons. The

content learned in the NSS lessons are also consolidated by T2 in their mother tongue,

Portuguese. As such, both T1 and T2 use their full linguistic repertoire in all lessons in order to

deliver content to the pupils.

By using CLIL as a pedagogical approach in the NSS classes, which took place four

times a week, the teachers allowed students to use a named foreign language (English) in a

natural context by focusing their learning on content and not just language acquisition. In the EL

lessons, which took place three times a week, besides working on grammar and syntax, children

learned subject-specific vocabulary necessary for their participation in the NSS classes. These

EL lessons were used as a scaffold in order to prepare pupils for the NSS classes. They

complemented the learning of content and many of the strategies used by the teachers were also

modeled in these classes. Data from both classes were used for data analysis as translanguaging

and scaffolding occurred naturally in these contexts.

3.2 Participants[5]

The participants observed include two teachers and eighteen children, 11 boys and 7

girls. Their age ranges from 8-9 years old.[6] The children all spoke Portuguese as their first

language at home, except for one pupil. This child spoke Danish, German, Portuguese and

English at home. According to the bilingual questionnaire administered to all pupils regarding

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[5] All participants have been given pseudonyms for privacy purposes.
[6] Data for this section was taken from the pupil's survey administered during the study.

their bilingual practices, about half of the children claimed to also speak English at home, although Portuguese was their first language (some use English with parents, use English to do their homework, or to play games). All students, except for Felipe, have been at the school since first grade, and about half of them started at pre-school. Thus, they have been participating in CLIL lessons since they entered the school.

T1 was born in South Africa. Whilst there, her first language was English and she used it most (taught at school), and her second language was Portuguese (taught by a private tutor). At the age of 16, she moved to Portugal. In Portugal, she mostly used Portuguese although she continued to study English (She spoke both languages to her parents at home). T1 has a Bachelor's degree in Languages and Modern Literature with a specialization in Translation. She has worked as an English teacher for 22 years and also has a second Bachelor's degree in Elementary Education. T1 has not had any CLIL training and was already familiar with the approach but affirmed to have been reading and visiting sites related to CLIL to find new ideas for teaching approaches.

T2 was the generalist teacher and taught all other subjects. She aided the children's comprehension of content given through English in the NSS lessons by using Portuguese. She was born and raised in the north of Portugal. She speaks Portuguese as her first language and learned English as a curricular subject during her school years. She has a Bachelor's degree in Elementary Education, a Postgraduate degree in Pedagogical Supervision and a Master's degree in Special Education.

3.3 Research Questions

The study was designed to analyze the ways in which two named languages coexist through translanguaging and were used by teachers and children in this particular bilingual classroom. The study aimed to provide answers to the following overarching questions:

(1) When do teachers and children use their named languages (i.e. English and Portuguese) in the NSS classes?

(2) For which purposes/functions do teachers and children use translanguaging and scaffolding strategies in this classroom?

3.4 Data Collection

This study was conducted through participant-observation (Heath, 1982a; Watson-Gegeo, 1988; Hammersley, 1993a; Hammersley & Atkinson, 2007), following a single case-study design with multiple embedded units of analysis (Yin, 1994). The researcher played an important role in the classroom, one that could not be performed if she was just merely a passive observer (Yin, 1994). According to Creese et. al. (2017), "As ethnographers, we take part in the daily activities of our participants while concurrently engaging in the deconstruction of the same activities" (p. 127). For these authors, "there is a duality in our role, as we are part of the social context, while attempting to stand back from it" (p. 128). As a participant-observer, the researcher also became part of the classroom and supported the children's understanding of content by using her unique linguistic repertoire (composed of both English and Portuguese linguistic and multimodal features) during the NSS and EL classes.

Both teachers in the study encouraged this participation and included the researcher in classroom discussions and activities. In order to avoid validity issues, the researcher constantly informed the nature and scope of the investigation to the participants. One of the major criticisms

of participant observation is "the potential lack of objectivity, as the researcher is not an independent observer, but a participant, and the phenomenon being observed is the subject of research" and as such, "participant observation carries with it the concern that the presence of the investigator may influence the way informants behave" (Iacono, Brown, & Holtham, 2009, p. 42). Lack of objectivity was taken into account by regularly discussing with the teachers the researcher's role in the classroom and by also including the teachers in the data analysis process. The researcher has attempted to present the evidence in an unbiased and clear manner by featuring samples of vignettes of classroom speech, quotes from teachers' written reflections and a theory-based discussion of the data collected.

The data collected was primarily of qualitative nature, although quantitative data played a supplementary role (Heath, 1982a; Hammersley, 1993a; Hammersley & Atkinson, 2007). In this role, quantitative data showed the frequency of instances a strategy was used, and thus it supports the main findings of the current study. The data collected includes:

(1) Fieldnotes & voice recording taken during weekly classroom observations.

(2) T1 and T2 written reflections based on open-ended questions regarding their use of language during instruction. They were collected four times during the six-month observation period and teachers could choose in which named language they wanted to respond. T1 also wrote a final reflection after data collection was completed. The questions are available in Appendix A.

(3) Bilingual questionnaire administered to all pupils regarding their bilingual practices. The questionnaire is available in Appendix B.

3.5 Data analysis

Data analysis was performed qualitatively through the analysis of language use in fieldnotes from classroom observations, audio recordings of NSS and EL lessons, and a pupil survey, and through content analysis (Bardin, 1977/2011) for the teachers' written reflections. The steps taken for data analysis were:

(1) Digitalization of hand-written fieldnotes into an excel spreadsheet;

(2) Transcription of audio recordings: At first, most classroom interactions were being recorded on the fieldnotes. After about two months, preliminary categories were delineated and while taking fieldnotes, the researcher highlighted specific instances where translanguaging and scaffolding practices were observed. Transcription of excerpts of the audio recordings to complement the fieldnotes was then performed (105 minutes were purposefully transcribed from a total number of 410 excerpts);

(3) Qualitative analysis of the compiled notes (1 and 2) regarding the teachers' and pupil's language practices through the elaboration of categories (Table 1). These categories were created by the researcher whilst data was being analyzed and later validated by the teachers in the study during face-to-face meetings. Also, new categories emerged as the teachers reflected on their own practices and were included in table 1. These categories are divided into the uses of English, the uses of Portuguese and the use of scaffolding strategies.

(4) Content analysis of teachers' written reflections for emerging themes related to their use of translanguaging and scaffolding strategies. The content analysis happened after all data had already been collected, and the emerging themes were correlated to the categories already established by the researcher and the teachers. Excerpts of these reflections are

used in the discussion section and they can be read in full in Appendix C (T1) and D (T2).

Table 1

Categories of data analysis

Uses of English	Uses of Portuguese	Use of Scaffolding Strategies
For the clarification of content	For the clarification of content	Classification
For keywords	For the teaching of English grammar	Comparison
For the correction of grammar for content	For the lack of English vocabulary	Modeling
For the teaching of grammatical patterns in NSS	For the clarification of instructions	Recall
For the correction of pronunciation for content	For the correction of behavior	Reinforcement
English versus Portuguese pronunciation		Questioning
For the clarification of instructions		Eliciting
		Spelling
For the correction of behavior		Cognate/ False cognate
		Word stress
		Read aloud

		Visual aids
		Whiteboard
		Body gestures
		Como se diz (CSD)
		How do you say (HDYS)
		Word-by-word translation

A total of 27 categories were derived from the systematic observations of the classroom. Data triangulation was completed through an analysis of the fieldnotes/recordings, written reflections/survey and literature review to validate the findings (Watson-Gegeo, 1988; Yin, 1994). Although ethnographic studies are widely used today, there is criticism of their application in educational research, namely generalizability and comparability. These two constraints have been accounted for during the continued interpretation of data. Validity was ensured by validating the abovementioned categories with both teachers who reflected on their bilingual practices and discussed the progress of their pupils four times during data collection (in month 1, month 2, month 3, and month 4). The categories were also reviewed by an independent rater, a bilingual teacher not related to the research site. Samples of vignettes from classroom interactions will be shared in the next section.

4. Findings

All sequences in which the linguistic and multimodal features of the two named languages played a role in classroom communication and content delivery were coded as translanguaging. After an extensive review of the researcher's handwritten fieldnotes and analysis of audio transcripts, vignettes were selected based on two criteria: their representativeness in the dataset they were taken from, in terms of the pedagogical approaches to

translanguaging and the interactive practices observed, and in terms of scaffolding strategies. For

the presentation of findings, a paraphrase of the event is provided below followed by a transcript

of the selected vignettes.[7] The findings are divided in two main sections: (i) General findings and

(ii) examples of scaffolding and translanguaging strategies. Each main section contains multiple

subsections. Each one of these subsections is considered as an embedded unit of analysis.

Although data were separated into subsections, just as with the concept of translanguaging,

where languages are not kept in strictly separated mental compartments (CFRL, 2001), all

vignettes reflect multiple layers of translanguaging and/ or scaffolding strategies.

4.1 General Findings

As time progressed, children steadily increased their use of English features in the

classroom by drawing from their unique linguistic repertoire, a finding validated by T2's written

reflection number 1 (collected at the end of month 2 of observations): "No último mês de aula,

registo um aumento do uso do inglês por parte dos alunos**" [In the last month of classes, there**

was an increase in the use of English by the pupils]. Most strategies were used by both

teachers and children. They used these strategies through pupil-directed translanguaging and

through teacher-directed translanguaging, "as a strategy to teach children holistically" (García &

Wei, 2017, p. 232). This, in turn, aided the delivery of content in the NSS class. These two types

of translanguaging are further discussed below within each one of the vignettes.

4.1.1 Teacher-Directed Translanguaging and Pupil-Directed Translanguaging

From the 410 excerpts of data analyzed, teacher-directed translanguaging (Lewis et al.,

2012b) appeared 263 times, while pupil-directed translanguaging (Lewis et al., 2012a) was

recorded 171 times. (In some instances, they appeared in the same exchange.) In both types of

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[7] When Portuguese is used, an English translation is provided in **[brackets]**.

translanguaging, interactions were oriented to language in content (301 times) and oriented to the flow of interaction (111 times). This finding converges with the teachers' reflections on their teaching pedagogies on the use of CLIL as they delivered the content in the NSS classes, and even in EL classes, translanguaging occurred many times for the purpose of teaching content. Both teachers affirmed that they planned their instruction to provide students with content which is accessible to their level of English development, and through translanguaging in English and Portuguese, these teachers modeled language and taught content at the same time. Since translanguaging was also used for interactional purposes, students were exposed to both every day and academic languages (Cummins, 2006) and to strategies to develop their own language repertoire, independent of how translanguaging occurred (teacher-directed or pupil-directed), as is seen in the vignette that follows.

Both T1 and T2, as will be shown in most vignettes, encouraged children to explore their multimodal linguistic repertoire by using a variety of strategies. According to García and Otheguy (2019), from a translanguaging perspective "what is important is that one acquires competence to communicate to varying degrees" (p. 7). In many of the vignettes shown here, instances of translanguaging continually demonstrate the teachers' efforts to help the children communicate. Vignette 1, taken from day 4 of observations, shows part of a lesson on the parts of plants. While T1 focused on the linguistic features in English, T2 facilitated the discussion by moving into Portuguese. As such, translanguaging focused on working with these bilingual students to "ensure that they were able to perform their bilingualism in ways that reflected who they were as bilingual beings" (García & Otheguy, 2019, p. 8), as T2 reinforced the content by highlighting a project previously done in the school's garden. There were a variety of strategies used by the teachers in this vignette: The use of Portuguese for the clarification of content and of

instructions (T2), the use of English for the clarification of content and for keywords (T1), the

use of visual aids – whiteboard (T1), recall (T2), funds of knowledge (T2), eliciting (T1),

questioning (T1) and reinforcement (T1).

Vignette 1

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	What do the roots do? – in English	Recall Questioning	
Belem	The roots do … how do you say …	HDYS	
T1	You have to say all in English.	Reinforcement	
T2	Tenta dizer de outra maneira. **[Try to say it another way]**		Use of Portuguese for the clarification of instructions
Belem	The roots protect the plants.		Use of English for the clarification of content
Bruce	No, they do not protect the plants.		Use of English for the clarification of content
	T1 writes the sentence on the whiteboard.	Visual aid Whiteboard	
Vasco	They take the minerals and water.	Recall	Use of English for the clarification of content
T1	Bruce you said food, but the most correct word is minerals.		Use of English for keywords
Vasco	Por que o solo tem minerais? **[Why does the soil have minerals?]**	Questioning	Use of Portuguese for the clarification of content
T1	In English.	Reinforcement	
Vasco	Why does the soil have minerals under them?	Questioning	
T1	Tell them T2.	Eliciting	
T2	Lembram ano passado com Seu Manuel vocês mexeram na terra, ela é feita de que? **[Remember last year with Mr. Manuel, when you**	Funds of knowledge Recall	Use of Portuguese for the clarification of content

	worked with the soil, what is it made of?]		
Children	Grãos de areia, animais. **[Sand, animals]**		Use of Portuguese for the clarification of content
	T2 explained the decomposition process, the creation of nutrients, manure, and how everything turns into minerals and feed the plants (she only spoke Portuguese).		Use of Portuguese for the clarification of content

Note. Data from day 4, NSS class on plants.

The children, on the other side, responded with strategies of their own: The use of Portuguese for the clarification of content (all children), the use of English for the clarification of content (Bruce and Vasco), how do you say (Belem), questioning (Vasco) and recall (Vasco). They did so by using pupil-directed translanguaging. For example, Vasco, who spoke Portuguese as his first language at home, had a deeper knowledge of English linguistic features than his peers. His name appears 129 times in the data set, among uses of pupil-directed translanguaging and other scaffolding strategies.

In vignette 1, Vasco stated that roots "take the minerals and water," recalling from previous content and correcting his classmate Bruce who had used the word *food* instead of *minerals*. T1 said "Bruce you said food, but the most correct word is minerals," to which Vasco answered with a further question: "Por que o solo tem minerais?" **[Why does the soil have minerals?]**. T1 reinforced the use of English, and Vasco translanguaged into "Why does the soil have minerals under them?" In this vignette, Vasco shows both his knowledge of content, the importance of plants, and also control over his linguistic repertoire, when he moves freely within his zone of proximal development (Vygotsky, 1978). He was able to translanguage fluidly in order to understand the content at hand and also to help his peers in making meaning of the class content. According to García and Wei (2018), "translanguaging pedagogy privileges the internal

language of learners. It does so by combining spaces/times where/when the named language is privileged, and spaces/times where/when students are given freedom to express themselves using their entire language repertoire" (p. 4). In vignette 1, Vasco demonstrated an awareness of with whom, when and why he chose specific linguistic and multimodal features over others. In many of the vignettes shown here, Vasco and other pupils made use of translanguaging and scaffolding strategies which resembled their teachers' strategies but also strategies of their own in other to use language for content and for communication purposes. T1, on the other side, reinforced his use of English, not because she wanted to force the use of that named language in the classroom, but because she knew that Vasco could use those specific linguistic features and model language for his peers. T1 allowed, in many of the excerpts, that pupils chose whatever linguistic features (from English and Portuguese) they felt most comfortable from their repertoire in order to make meaning of content. She, herself, and T2 in many instances translanguaged in order to help them in the meaning-making process.

4.1.2 Uses of English

English, as a named language, was used for different purposes in the classroom. Amongst the uses of English are those used to explain content (13% of the time). In vignette 2 (Day 9 of observations), both Sibele's and Carla's use of English demonstrate their effort in understanding the content *through* that language (Coyle et al, 2010) as they tried to explain the difference between the words *florist* and *forest* in English. In contrast to code-switching, which "takes on the external perspective of named languages with their power hierarchies", the translanguaging in this exchange "stems from the internal perspective of all human beings and focuses on their agency to select features from their entire language repertoire in social interactions" (García & Wei, 2018, p. 3). The teachers and children in this study operated beyond code-switching as they

selected linguistic and semiotic features from their own language repertoire, not because of socially and political boundaries of those specific named languages, but because it helped them to make meaning of the content being explored.

Moreover, T1 also modeled and scaffolded their learning through the use of English, aiding it by using a word-by-word translation spontaneously indicated by Sibele. An important strategy, the teaching of keywords and academic jargon for NSS, demonstrated the use of language *for* learning (Coyle, 2018) by the teachers in this classroom. In this vignette, other uses of English and scaffolding strategies interspersed the interactions, as can be seen below, for example, as T1 used multimodal features such as lots of body gestures to explain the difference between the two concepts, or when she used English to teach a grammatical pattern during the NSS lesson, i.e. the 3rd person in the Simple Present.

Vignette 2

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	What is the difference between a "florist" and a "forest"? We discussed this last week.	Recall Comparison Word stress Body gestures	Use of English for keywords
Carina	A florist é florista. **[The florist is florist]**		Use of Portuguese for the clarification of content
T1	uhum. And forest?	Reinforcement	
Child	é floresta! **[it's forest]**		Use of Portuguese for the lack of English vocabulary
T1	Ok. Imagine you want to say that in English. How can you say it in English? Sibele?	HDYS Eliciting	Use of English for clarification of instructions
Sibele	Florist is a woman.		Use of English for the clarification of content
T1	Ok. It can be a man. *[laughs]*		Use of English for the clarification of content

Sibele	It's, how can I say "vendar?"	HDYS Word stress	Use of Portuguese for the lack of English vocabulary
T1	Vendar ou vender? **[To blindfold or to sell?]**	Word stress	Use of Portuguese for clarification of content
Sibele	Vender. **[to sell]**		Use of Portuguese for clarification of content
T1	Sell?	Word-by-word translation Word stress	Use of English for keywords
Sibele	The florist is a person who sell flowers and trees.		Use of English for the clarification of content
T1	It may, possibly, small trees. Okay. So, a florist is a person who sells *[emphasis on the final /s/]*, sells– he, she it, remember – plants, flowers. Okay. So, and what is a forest? Carla?	Modeling Word stress Eliciting	Use of English for the teaching of grammatical patterns in NSS
Carla	Forest is the, what is the word?		Use of English for the clarification of content
T1	Forest		Use of English for keywords
Carla	Forest is where, is many trees and...		Use of English for the clarification of content
T1 and Carla	many flowers.		Use of English for the clarification of content
T1	It's a habitat, okay? Ok, now Jonas. You wanted to say? So, you say "forest," right? Ok, another one.	Reinforcement Word stress	

Note. Data from day 9, NSS class on habitats.

In vignette 3, T1 had a PowerPoint with different examples of plants (grass, trees and bush). She asked the pupils to help identify them. The lesson objective was also to teach them the concepts of opposites to describe these plants (the use of English for the teaching of

grammatical patterns in NSS), e.g. thin vs. thick; short vs. long; and low vs. high. In the exchange, although Vasco knew the correct response to T1's question, he mispronounced the word *long* and pronounced *along*. He motioned with his hands and head his disappointment at his mistake. This vignette contains examples of scaffolding strategies used by T1 and the pupils in the NSS lesson. For instance, T1 used English for the correction of grammar for the teaching of content, for the teaching of grammatical patterns in NSS and word stress to facilitate the exchange. Vasco and Sibele also used strategies of their own, such as the use of English for keywords and for the clarification of content.

Vignette 3

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
	Breno read aloud.	Read aloud	
T1	What's the "opposite of short?"	Questioning Recall	
Vasco	Along.		Use of English for keywords
T1 repeated	LONG.		Use of English for the correction of grammar for content
Sibele	They be long.		Use of English for the clarification of content
T1	Yes, they ARE long.	Word stress	Use of English for the teaching of grammatical patterns in NSS

Note. Data from day 4, NSS class on plants.

Meanwhile, the pupil Carla made enormous progress in developing her linguistic repertoire during the study. Her name appeared 70 times in the data set. At first, she resorted to her Portuguese linguistic features mostly as she lacked vocabulary in English. By day 13 of observations, Carla was already drawing from her English repertoire with more confidence as she asked for the clarification of instructions for her relief map project. In vignette 4, she even

stopped T1 to complete her ideas and used English for the clarification of instructions and for

keywords and questioning, strategies which had been modeled by her teachers. She did not

produce sentences which were completely grammatically correct, but Carla and other pupils tried

to formulate more complete sentences as the study progressed given the constant reinforcement

given by the teachers on the use of English.

Vignette 4

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	You cut around, and then you are going to use plasticine, brown and yellow to make your mountain landscape and to make your low land or plain land.	Modeling Body gestures	Use of English for the clarification of instructions
Carla	Teacher and hum ... imagine		Use of English for the clarification of instructions
T1	Imagine, yes	Reinforcement	
Carla	Make the the low land with the color yellow.		Use of English for the clarification of instructions
T1	Yes, yes.	Reinforcement	
Carla	I can put the small mountain?	Questioning	
T1	Yes, of course. Because yellow is the plateaus and for hills if you want to use the brown, you'll use to make the high mountains, ok? And if you want some blue. I also have blue. If you want to make		Use of English for the clarification of instructions
Carla	A river.		Use of English for keywords
T1	A river.	Reinforcement	
Researcher	The ocean.		Use of English for keywords

| T1 | Or the ocean. If you want to make the ocean around. Ok? Correct. | Reinforcement | Use of English for the clarification of instructions |

Note. Data from day 13, NSS class on relief maps.

Even though her idea was not grammatically correct, T1 acknowledged her effort by reinforcing her response and furthering her instructions to the task. T1 validated Carla's questioning in this exchange by using several strategies: The use of English for the clarification of instructions, modeling, body gestures, questioning and reinforcement. The uses of English highlighted in this subsection do not reflect all uses of English found in the dataset; thus, more examples of uses of English will be seen in many of the vignettes that follow.

4.1.3 Uses of Portuguese

The use of Portuguese was linked to different strategies, but it was mostly used for the correction of behavior in the classroom (31 appearances in the dataset). In vignette 5 (Day 10 of observations), T1 asked the class if there were any other words that needed clarification. The use of Portuguese linguistic features, as seen previously, was largely used in the classroom for communication purposes (Nikula & Moore, 2016), and Vasco made sure to use this strategy many times during the study. As Belem replied she was unsure of the word "population," T1 replied that "Population is a group,' and Vasco stressed "Acabamos de falar a pouco. População" **[We just talked about it. Population.]**. His tone of voice was annoyed, and he rolled his eyes as he called Belem's attention. Vasco used lots of non-verbal expressions (or multimodal features) when communicating in the classroom. On the continuation of the exchange, T2 reinforced his position by saying "Vocês tem que prestar mais atenção e lembrar o que já aprendemos" **[You have to pay more attention and remember what we have already learned]**. Furthermore, although Portuguese was used for the correction of behavior, it was also largely used for explaining content in the NSS classes (5% of the time). T2 used teacher-directed

translanguaging, by deploying Portuguese linguistic features from her single linguistic repertoire, to remind students of the concepts of population and community. These concepts had previously been discussed in English; thus, the children had access to them by using their whole linguistic repertoire through the teachers' translanguaging and their own funds of knowledge (González et al, 2005).

Meanwhile, they also used Portuguese for their lack of English vocabulary, as shown by Felipe in different parts of the vignette. Even though Felipe has English speaking parents, he was new to the classroom and mostly used Portuguese during lessons. There were also other translanguaging and scaffolding strategies which appeared in this vignette: The use of English for keywords (Belem and Manuela), the use of English for the clarification of content (T1), recall (T2), classification (T1 and T2) word stress (Vasco), eliciting (T1) and reinforcement (T1 and Felipe).

Vignette 5

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Ok. Are there any other words that you want to ask me? Belem?	Classification Eliciting	
Belem	Population.		Use of English for keywords
T1	Population is a group.		Use of English for the clarification of content
Vasco	Acabamos de falar a pouco. "População." **[We just talked about it. Population.]**	Word stress	Use of Portuguese for the correction of behavior
T1	Population, it can be a group of zebras, it can be a group of people. Right? Ok? Any more words? Manuela?	Eliciting	Use of English for the clarification of content
Manuela	Community.		Use of English for keywords

T1	Community.	Reinforcement	
T2	É outra palavra que já aprenderam hoje. **[It's another word you have already learned today.]**	Recall	
T1	Community.	Reinforcement	
Children	Comunidade de pessoas. **[Community of people]**		Use of Portuguese for the lack of English vocabulary
Felipe	Comunicação **[Communication]**		Use of Portuguese for the lack of English vocabulary
T2	Não é comunicação. **[It's not communication.]**		Use of Portuguese for the clarification of content
Felipe	Comunidade de pessoas, por exemplo eu, o Rafael e o Bruce somos comunidade. **[Community of people, for example me, Rafael, and Bruce are a community.]**		Use of Portuguese for the clarification of content
T1	No, you're a population.		Use of English for the clarification of content
Felipe	Não. Nós juntos ... **[No. We altogether...]**	Reinforcement Body gestures	
T2	Não olha o que vocês leram ai é que no ecossistema existem a população e a comunidade. O que é a população que estávamos a ver? É um grupo de pessoas, um grupo de animais. Um grupo de seres vivos. E esses seres vivos todos começam a interagir uns com os outros, quando há interação uns com os outros e/ou cohabitam com os outros animais, ou no meio da floresta ou da natureza, há uma interação entre todos. E na outra vez sobre o que nós lemos, vocês tem que prestar mais atenção e lembrar o que já aprendemos.	Classification Recall Funds of knowledge	Use of Portuguese for the clarification of content

[No. Look at what you read. In an ecosystem, there is the population and the community. What is a population? It's a group of people, a group of animals. A group of living beings. And these living beings all start to interact with each other, when there is an interaction among them and/or they cohabitate with other animals, in the middle of the forest or in nature, there is an interaction among all of them. We read about this the other time. You have to pay attention to what we have already learned.]		

Note. Data from day 10, NSS class on ecosystems.

Whereas in the previous vignette Vasco initiated the pupil-directed translanguaging, in some instances the teachers also used Vasco to model translanguaging as a scaffolding strategy for his peers, as shown in vignette 6 (Day 10 of observations). As they discussed the definition of community in the NSS lesson, T2 identified a new word for the pupils, *surroundings*. T1 encouraged Vasco to explain the meaning of the word in Portuguese to his peers, knowing that he was familiar with it. As Vasco translanguaged with ease, he helped his peers in the process. The strategies present in this exchange were: The use of Portuguese for the clarification of content (Vasco and T1), the use of English for clarification of content and of instructions and for keywords (T1), questioning (T2), recall (T1) word stress (T1 and T2), modeling (T1) and reinforcement (all children and T1).

Vignette 6

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Community. OK? All right. When these populations interact with each other, they form a community. When communities interact with other communities and their surroundings, they form an ecosystem. I know you are going to ask me one word for sure: "Surroundings."	Recall Words stress	Use of English for keywords Use of English for the clarification of content
Children	Surroundings, yes.	Reinforcement	
T2	You know what surrounding means?	Questioning Word stress	
T1	Ok. Surroundings. Vasco. Do you want to explain to your friends? You can explain in Portuguese. Because it is important. Surroundings. What are "surroundings?" You can explain in Portuguese to your friends.	Modeling Word stress	Use of English for the clarification of instructions
Vasco	É tudo que está a nossa volta. **[It is everything that is around us.]**		Use of Portuguese for the clarification of content
T1	É o meio envolvente? **[Is it the involving area?]**	Reinforcement Questioning Word stress	
Children repeat	É tudo que está a nossa volta. **[It is everything that is around us.]**	Reinforcement	

Note. Data from day 10, NSS class on ecosystems.

With the bilingual teachers' aid, T1 and T2, Vasco modeled translanguaging throughout the study and made it visible to his peers. Kleyn & García (2019) state that, sometimes, "bilinguals perform their language in unmonitored situations with listeners who are also bilingual. The language repertoire of these bilingual listeners has more overlaps with the features of the linguistic system of bilingual speakers, thus making translanguaging visible" (p. 3). Vasco was very aware of when he could translaguage to facilitate the content in class. In vignette 7,

during an English Language lesson on day 6 of observations, T1 and T2 were talking about

DOJO, an online teaching resource used for the management of behavior in the classroom. T1

used English while T2 used Portuguese. The children loved DOJO as they could see their

characters and their progress in class. T1 questioned "What's *hurt* with words?" Vasco

immediately replied "*insultar"* [**insult**, emphasis added by Vasco]. T1 continued the exchange

by stating "How do you say *insultar*? It sounds like Portuguese." T1 elicited a word-by-word

translation by using the structure "how do you say," and by indicating it to be a cognate, several

pupils echoed *insult*. Although Vasco already knew its English counterpart, Vasco used the

Portuguese pronunciation of the word to make sure that his peers understood what the word

meant.

Vignette 7

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	What's "hurt with words?"	Questioning Word stress	
Vasco	INSULTAR. **[To insult.]**		Use of Portuguese for the clarification of content
T1	How do you say "insultar?" Sounds like Portuguese.	HDYS Cognate Eliciting	
Children	INSULT.	Word-by-word translation	

Note. Data from day 6, EL class, Discussion about DOJO.

His strategy was seen in many of the exchanges, such as in vignette 8 that follows (Day 6

of observations). T1 was explaining the parts of a flower through a drawing on the whiteboard

and by reading aloud from their NSS book. The pupils offered a word-by-word translation, and

Iris followed with a read aloud about reproduction, coming upon the word *common*. The

exchange proceeded as follows.

Vignette 8

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
Carla	How do you say "common" in Portuguese?	HDYS Questioning	
T1	Guys, do you know?	Questioning	
Children	Comum. **[Common.]**	Word-by-word translation	
	T1 explained the concept in English.		Use of English for the clarification of content
Vasco	Algo que todos tem. **[Something that everybody has.]**	Modeling	Use of Portuguese for the clarification of content

Note. Data from day 6, NSS class on the parts of a flower.

Vasco contributed with a paraphrase of the meaning of the word *common* in Portuguese after having the response elicited by T1. As it can be seen in the vignettes that precede, Vasco volunteered his knowledge many times in the classroom. As he took control of his own learning and self-regulated when and how to use his linguistic knowledge and multimodal signs (García & Wei, 2017), Vasco showed his flexibility in using translanguaging and scaffolding strategies to language in the different contexts his classes offered. In this same exchange, we also observe Carla's use of translanguaging and scaffolding strategies. As Carla used the scaffolding strategy "how do you say," she indicated that she lacked that vocabulary in English and was not able to make meaning of the content in the book. The structure "how do you say" had been repeatedly used by her teachers as a model. Thus, Carla knew which linguistic features to draw from her repertoire in order to find the meaning of an unknown word. This and other strategies will be seen on the following section.

4.2. Examples of Scaffolding and Translanguaging Strategies

      Scaffolding was used throughout the observations, with teachers working within the pupil's zone of proximal development (Vygotsky, 1978) by implementing strategies such as classification, comparison, read aloud, questioning and body gestures, among others. It is imperative to highlight that Portuguese as a named language was not intended as a scaffolding strategy, but that the teachers and children used diverse scaffolding strategies through their unitary linguistic system (García & Otheguy, 2019), which includes Portuguese and English features, to make meaning of content and to communicate. Translanguaging strategies were, in turn, used through the uses of English and Portuguese for different purposes, as seen previously. They will also be included in this section as many of the vignettes illustrate multiple layers of both scaffolding and translanguaging strategies.

4.2.1 Comparison and Classification

      In vignette 9, T1 started the lesson by asking students to differentiate between public and private transport. She reinforced the use of English and delivered the content through it, building on Sibele's response to explain about private transport. She complemented the explanation of the concept by scaffolding another strategy, the classification of public transport through the use of several examples, which composed the keywords necessary for understanding the content in that lesson. She also used funds of knowledge (González et al., 2005) about the Tagus River to scaffold their learning and reinforced the comparison between the concepts (public and private transport) by asking Manuela to read the text aloud after their whole group discussion. Given their knowledge of the Tagus River in Portuguese, children used the Portuguese word-by-word translation "Rio Tejo" and started to tell stories about their own experiences in Portuguese (highlighted by the overlap speech in the vignette).

The positive impact of scaffolding is shown in Sibele's conclusion: "For all the public transport we have to pay." The purpose of a translanguaging pedagogy as scaffold is to "help students during a transition phase while they are adding and appropriating the necessary features that are required to complete the academic task in one or more named languages" (García & Wei, 2018, p. 4). Its purpose is not to be a scaffolding strategy to achieve full competence in English, but to help pupils understand the academic content. Given the fact that this exchange happened on day 15 of observations, both T1 and T2 had already built on their repertoire of strategies, and by using scaffolding in conjunction with other translanguaging strategies, the teachers aided the comprehension of the content in the CLIL lessons, building on the pupils' linguistic repertoire. T1 used the following strategies in this vignette: The use of correction of grammar for content, the use of English for keywords, the use of English for the clarification of content, the use of English for the teaching of grammatical patterns in NSS, word stress, comparison, classification, eliciting, questioning, read aloud, body gestures, funds of knowledge and reinforcement. The pupils, in turn, used the following strategies: The use of English for keywords (Sibele, Samuel, Iris, Vasco, and Tito), the use of English for the clarification of content (Sibele), read aloud (Iris), word-by-word translation and reinforcement (Sibele).

Vignette 9

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Sibele, can you explain, in words, what is "public" and "private?"	Comparison Word stress	Use of English for keywords
Sibele	Public is a transport where people can go. And private is a place		Use of English for the clarification of content
T1	Transport		Use of correction of grammar for content

Sibele	A transport. It is, it's my car.		Use of English for the clarification of content
T1	Correct.	Reinforcement	
Sibele	It's me and my family. We get to go there.		Use of English for the clarification of content
T1	Correct, that's right. You choose: do you want to go in your car, ok? But in a "public" transport, anybody can travel. And we have to what? Is this free?	Questioning	Use of English for the clarification of content
Children	No.		
T1	We have to what?	Questioning	
Sibele	To pay.		Use of English for the clarification of content
T1	To pay, ok? Can you give me any example besides the bus of a public transport? Another public transport, Tito?	Classification Eliciting	
Tito	Metro.		Use of English for keywords
T1	*A* metro? Ok, pretty good.		Use of English for the teaching of grammatical patterns in NSS
Vasco	Taxi.		Use of English for keywords
T1	We forgot that! But taxi yeah. It's a car. But it is a public transport. Iris?	Eliciting	Use of English for the clarification of content
Iris	A train.		Use of English for keywords
T1	A train.	Reinforcement	
Child	A plane.		Use of English for keywords
T1	A plane. More?	Reinforcement Eliciting	
Tito	A Uber.		Use of English for keywords
T1	Uber? That's the same as the taxi. More? Samuel.	Eliciting	Use of English for the clarification of content

Samuel	The bus.		Use of English for keywords
T1	The bus. We already said the bus.	Reinforcement	
Samuel	The plane.		Use of English for keywords
T1	We said the plane. Iris?	Reinforcement Eliciting	
Iris	A cruise.		Use of English for keywords
T1	A cruise, ok.	Reinforcement	
Researcher	Sibele?	Eliciting	
Sibele	A boat?		Use of English for keywords
T1	I was going to say that. The ferries that we have in Lisbon that to go from one side to the other of the Tagus River. What is the Tagus River? In Lisbon.	Funds of knowledge Body gestures Questioning	Use of English for the clarification of content
	- Overlap speech in Portuguese. Children were trying to make sense of the question elicited by T1. Some of them said "Rio Tejo"	Word-by-word translation	
T1	In English you say Tagus River, ok? The public, one of the public transports is the ferry. It transports people and cars to the other side of the river. Ok?		Use of English for the clarification of content
	- Overlap speech.		
T1	Ok? All right. Manuela can you please read?	Read aloud	
Sibele	For all the public transport we have to pay.	Reinforcement	Use of English for the clarification of content
T1	Yes, that's true.	Reinforcement	

Note. Data from day 15, NSS class on transport.

In vignette 10, during a NSS lesson on different types of transportation, T1used a

comparison to ask about the difference between helicopters and planes. As usual, Vasco offered

his understanding of the word through translanguaging into Portuguese to explain the meaning of

the word *advantage*. By continually using a CLIL framework in her lessons, and in this vignette, T1 elicited an answer from Carla, thus enabling her to understand the concept being taught (Coyle, 2018). As an emergent bilingual (García, 2009), Carla translanguaged and found the most appropriate way to make meaning of the question posed by T1. This exchange, like the previous one, happened on day 15 of observations, almost five months into the study. T1 and the researcher had previously discussed the progress being made by the pupils in their use of their language(s) and agreed that some pupils needed more chances to speak in class to demonstrate their knowledge and language development. Carla was one of them, and thus T1 continually elicited her to participate in class discussions.

However, there was a deep cognitive load on the way the interaction was scaffolded in vignette 10. T1 expected a word-by-word translation into Portuguese once these pupils need to learn the content in both languages. Before they enter middle school, they are tested in Portuguese, and not in English. That is a big concern of parents, educators and teachers: How do their children test in a language they are not learning in? Perhaps, this comparison strategy could have been more meaningful if a visual aid had been provided, for example, through the means of a comparison chart or Venn diagram. By itself, the comparison strategy demanded a lot cognitively from the pupils. In addition to comparison, these were the strategies used by T1: The use of English for the clarification of instructions and of content, recall, comparison, questioning, eliciting, word-by-word translation, and reinforcement. Vasco used word-by-word translation, while Carla used Portuguese for the lack of English vocabulary, the use of English for the clarification of content, CSD, and comparison.

Vignette 10

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	What is the difference between a "helicopter" and a "plane?" It tells you here in this paragraph. What is the difference? There is a good thing. I don't want to say thing, I want to say advantage. Do you know what advantage means?	Recall Comparison Questioning	Use of English for the clarification of instructions
Vasco	Uma vantagem. **[An advantage.]**	Word-by-word translation	
T1	Uma vantagem. **[An advantage.]** Ok. There is an advantage for planes. Planes are faster. What is the advantage of the helicopter? Put your hand up. It's in the text. Carla do you want to try? Yes?	Reinforcement Questioning Eliciting	Use of English for the clarification of content
Carla	Hum ... the helicopters, como se diz "aterrar?" **[How do you say "land?"]**	CSD Comparison	Use of Portuguese for the lack of English vocabulary
T1	Land.	Word-by-word translation	
Carla	Land in the difficult place.		Use of English for the clarification of content
T1	That's right. Very good. Ok.	Reinforcement	

Note. Data from day 15, NSS class on transportation.

As embedded units of analysis under this single case study, comparison and classification were strategies that fell under the scaffolding strategies. They appeared around 8% of the time in the dataset, and they were rarely used alone.

4.2.2 Visual Aids

The strategy most used to aid the children's bilingual development was the use of visual aids (15% of the time), which included the use of the whiteboard, textbooks, figures, projector,

videos, songs, drawings, PowerPoint and body gestures. In vignette 11, T1 used several of these strategies, including delivering her lesson with the aid of a PowerPoint to complement their NSS lesson on plants, images of the life cycle of a plant, the whiteboard and lots of body gestures. As observed by García and Otheguy (2019), bilingual students possess a system of multimodal signs coupled with a unitary system of lexical and structural signs. From a translanguaging perspective, these students make meaning both with their bodies and outside of their bodies, through the use of visual aids, such as gestures, gazes, posture, visual cues, and even human-technology interactions (García & Otheguy, 2019, p. 10), which are used by themselves and by their teachers.

In addition to the use of visual aids, other translanguaging and scaffolding strategies were used in this vignette, for example T2 used English for the teaching of grammatical patterns in NSS when she interjected Iris by using a pronoun, *they*; T2's use of Portuguese for the clarification of instructions and of content, and her use of the structure CSD in conjunction with word stress as she elicited the word-by-word translation of *mobília*. T1 used questioning, recall, several visual aids, for instance when she modeled the writing of the word *furniture* on the whiteboard, and the use of English for the clarification of content. This vignette was taken from day 3 of observations, early on in the study. As such, T1 also used the structure HDYS as Iris questioned "Have *roupas*?" **[Have clothes?]** and in order to make the exchange less cognitively demanding by using a word that was familiar to them, *make*, T1 responded "*Make*, how do you say *roupas*?" to which the children responded with a word-by-word translation, *clothes.* Rafael used the structure CSD and, in this same vignette, Iris used English for the clarification of content and Portuguese for the lack of English vocabulary in conjunction with words stress.

Vignette 11

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
	T1 had a PowerPoint presentation about plants during observations on day 3. This PowerPoint served to complement their NSS lesson on plants. Besides the PowerPoint, T1 used lots of body gesture and drawings to explain the life cycle of a plant. The third slide on the PowerPoint contained the question posed below and an image of a plant.	Recall Visual aids: PowerPoint and Body gestures	
T1	Why are plants important for us?	Questioning	
T2	Olhem para a imagem e tentem dizer por que elas são importantes para nós. **[Look at the image and try to tell us why they are important for us?]**	Visual aids	Use of Portuguese for the clarification of instructions
Iris	Plants are important for us because …		Use of English for the clarification of content
T2	They …		Use of teaching of grammatical patterns in NSS
Iris	Have "roupas?" **[Have clothes?]**	Word stress	Use of Portuguese for the lack of English vocabulary
T1	MAKE, how do you say "roupas?"	HDYS Word stress	
Children	Clothes.	Word-by-word translation	Use of English for keywords
Rafael	Como que se diz "madeira?" **[How do you say "wood?"]**	CSD Word stress	
T2	Há muitas outras coisas que conseguem fazer com madeira. **[There are many other things you can make out of wood.]**		Use of Portuguese for the clarification of content
Children	Chair.		Use of English for keywords

| T2 | Como que se diz "mobília?" **[How do you say "furniture?"]** | CSD
Word stress | |
| T1 | It's a new word for them – FURNITURE. *[as she writes the word on the whiteboard]* | Modeling
Whiteboard | Use of English for the clarification of content |

Note. Data from day 3, NSS Class on plants.

In the continuation of the previous exchange, T2 also modeled translanguaging for the children. She moved across her linguistic repertoire as she saw fit to better help the children understand the concept at hand (why plants are important for humans). In vignette 12, while T2 used Portuguese, T1 interjected and wrote the word root *medic* on the board. Once T1 wrote the word on the board, the pupils used questioning, through the use of Portuguese language features, to ask "O que é isto?" **[What is this?]**. Felipe used classification to build on it and said *medicine*. By using their funds of knowledge and by using teacher-directed translanguaging, T1 allowed the children to share their stories about their uses of medicine. They then used classification to list all words that connected to the word plants, by using the whiteboard, and T2 elicited Iris to come back to her example, *roupas*. The pupils learned a keyword in English, clothes, and other reasons why plants are important for them.

Vignette 12

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T2	Tem coisas que vocês usam todos os dias que usam madeira. **[There are things that you use every day made of wood]**	Funds of knowledge	Use of Portuguese for the clarification of content
T1	*The children continued speaking in Portuguese and T1 interrupted*: There is one more important thing why plants are important for us. She showed them a photo and wrote the	Visual aids Whiteboard Spelling	Use of English for keywords

	root MEDIC on the whiteboard.		
Felipe	*Felipe looked at the notebook and said*: Medicine.	Classification	
	T1 wrote the word on the whiteboard.	Whiteboard	
Children asked	O que é isto? **[What is this?]**	Questioning	Use of Portuguese for the clarification of content
T1	Medicamento. Quando tu estás doente Manuela, tu tomas medicamento. **[Medicine. When you are sick Manuela, you take medicine.]**	Funds of knowledge	Use of Portuguese for the clarification of content
	The children all started telling stories in Portuguese about using medicine.	Funds of knowledge Recall	
T1 had a blank slide	I want you to say all the words you can remember when you think of plants.	Classification Eliciting	Use of English for the clarification of instructions
	She put the word "plants" in a box in the middle, and then children started talking: resin, medicine, oxygen, soil, air, sunlight, carnivore, roots, seeds, water, stem, flowers, leaves, grass.	Visual aids Classification Funds of knowledge	
T2	Iris você disse que servia pra que? **[Iris what did you say it was for?]**	Eliciting Reinforcement	
Iris	Roupas. **[Clothes.]**		Use of Portuguese for the clarification of content
T2	TO MAKE		Use of English for the teaching of grammatical patterns in NSS
Children	CLOTHES.		Use of English for keywords
T1	Now you are remembering things from last year.	Reinforcement Funds of knowledge	

Note. Data from day 3, NSS Class on plants.

In this vignette, T1 and T2 used English and Portuguese for explaining content, recall, classification, HDYS, CSD, word stress, reinforcement, eliciting, spelling, funds of knowledge and mainly visual aids (PowerPoint, whiteboard, and body gestures) as part of their teaching strategies. These instances of translanguaging, which "refer to the human capacity of speakers to add and select different linguistic and semiotic features to their communicative repertoire" (García & Wei, 2018, p. 3), set the tone in terms of practice in the classroom. The children, in turn, felt free to express their ideas and to also use their own strategies to that end. As a scaffolding strategy, visual aids served the purpose of aiding in the meaning-making process and of developing the pupils' linguistic abilities, as children transacted with different ways of communicating, such as gestures, facial expressions, the whiteboard, drawings, videos and others.

4.2.3 Cognates and False Cognates

As teachers add new language features to emergent bilingual children's repertoire, they place meaning-making at the core of instruction. In vignette 13, T1 explained the process of nutrition of a flower, and T2 stated that the word *extra* was similar to its Portuguese counterpart. Children were able to quickly make the connection and used Portuguese pronunciation for the word. Vasco used pupil-directed translanguaging to clarify the content in Portuguese in order to support his peers' meaning-making process. When T2 said "O que significa extra?" [**What does extra mean?],** Vasco replied "A mais" and T2 reinforced the concept by stating "A comida a mais" **[the extra food]**. Although Portuguese was involved in this exchange, T1 built on the children's linguistic repertoire and continued the explanation in English, reinforcing the concept in that language.

For Kleyn and García (2019), "Translanguaging also provides emergent bilinguals the opportunity to compare and contrast English with another language, such as asking students to identify cognates (as well as false cognates) to see how their knowledge of one named language assists in learning another" (p. 76). This strategy was developed as an exploration by the researcher and T1 after she shared her first written reflection. This translanguaging strategy was used as "transformative pedagogy" (García & Wei, 2017) on this and other occasions, such as for example in vignette 14, where T1 compared the word *mole* by demonstrating the English versus the Portuguese pronunciation and by explaining how these words were false cognates. The following strategies appeared in vignette 13: The use of Portuguese for the clarification of content (Jonas and T2), the use of English for clarification of content (T2), English versus Portuguese pronunciation (all), word-by-word translation (Vasco), cognate (T2), recall (Jonas), questioning (T2), word stress (Jonas and T2) and reinforcement (T2).

Vignette 13

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
Jonas	O que é "extra food?" **[What is "extra food?"]**	Recall	Use of Portuguese for the clarification of content
T2	It's like in Portuguese. What's "extra?"	Cognate Word stress Questioning	
Children	Extra *[Portuguese pronunciation]*	Word-by-word translation	Use of Portuguese versus English pronunciation
T2	O que significa "extra?" **[What does "extra" mean?]**	Word stress	Use of Portuguese for the clarification of content
Vasco	A mais. **[Extra.]**	Word-by-word translation	
T2	A comida "a mais." **[The extra food.]**	Reinforcement Word stress	Use of Portuguese for the clarification of content

Note. Data from day 7, NSS class on the parts of flower.

Meanwhile, vignette 14 shows multiple layers of strategies. T1 and T2 used English for the clarification of content and of instructions (T1), English versus Portuguese pronunciation (T1), Portuguese and English for the correction of behavior (T2), the correction of pronunciation for the teaching of content (T1), spelling (T1), classification (T1), false cognate (T1), modeling (T1) and reinforcement (T1). The pupils, as previously mentioned, used pupil-directed translanguaging through the use of Portuguese versus English pronunciation, and Vasco used body gestures and spelling. By using translanguaging and scaffolding strategies such as the use of cognates and false cognates (García & Wei, 2017), T1 and T2 allowed pupils to see how one of their named languages could help them in understand the content in another.

Vignette 14

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Ok. And now, who knows the name of the last animal? Vasco?	Recall Classification Eliciting	
Vasco	Vole	Body gesture	
T1	You are nearly there. Change the |v| to a |m|.	Modeling	Use of correction of pronunciation for content
Children	Mole *[Portuguese pronunciation]*		Use of Portuguese versus English pronunciation
T2	Felipe, sit down straight please.		Use of English for correction of behavior
T1	Can you try spell it?		Use of English for the clarification of instructions
Vasco	|m| |o| |l| |e|	Spelling	
	- Children started to say mole in Portuguese		Use of Portuguese versus English pronunciation
T2	Felipe, senta-te direito. **[Felipe, sit down properly]**		Use of Portuguese for the correction of behavior

| T1 | Mole *[Portuguese pronunciation]* is not the same as mole *[English pronunciation].* | False cognate | Use of correction of pronunciation for content |

Note. Data from day 10, NSS class on habitats.

4.2.4 Recall and Reinforcement

Recall and reinforcement were observed from early on in the observations, such as on vignette 15 from day 2. During a lesson on insects, the children were learning about the concept of symmetry. In order to convey that concept to the children, both teachers used a wide range of strategies to aid the pupils' understanding. T2 used the pupils' previous knowledge to recall the concept. T1 used drawing, body gestures, word-by-word translation, and reinforced the concept through a read aloud and by restating the synonym for symmetry, *the same*. As in the other vignettes, multiple translanguaging and scaffolding strategies were also used: The use of Portuguese for the clarification of content (T1, T2 and pupils), the use of English for the clarification of content and of instructions (T1), the use of English for keywords (T1), how do you say (Vasco and T1), visual aids such as whiteboard (T1), drawing (T1) and body gestures (T1 and T2), comparison (T1), word stress (T1), questioning (T1) and funds of knowledge (T2).

Vignette 15

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Look at the picture, what is it?	Recall Comparison	Use of English for the clarification of instructions
Children	Uma formiga com asas. **[An ant with wings.]**		Use of Portuguese for the clarification of content
	T1 had drawn a symmetric butterfly on the whiteboard.	Visual aids: Whiteboard and Drawing	
T1	Can you explain "symmetry" in English?	Questioning Word stress	Use of English for keywords

Vasco	*Vasco starts to explain it in English and asks* – how do you say ….?	HDYS	
T2	Vocês aprenderam no ano passado. **[You learned about it last year.]**	Recall	
T1	*T1 uses hand gestures and asks children to help.*	Visual Aid Body Gestures	
T2	*T2 gave an example of a Math activity they did in 2nd grade where they had to use symmetry. [She only spoke in Portuguese]. She also used her hands to show the symmetry of the wings of the butterfly.*	Funds of knowledge Body gestures	Use of Portuguese for the clarification of content
T1	It means "igual." How do you say it? **[It means "the same."]**	Word stress HDYS	Use of Portuguese for the clarification of content
Children	Same.	Word-by-word translation	
	Lia reads the text aloud.	Read aloud	
T1	You see, "the same".	Reinforcement Word stress	Use of English for the clarification of content

Note. Data from day 2, NSS class on insects.

Recall and reinforcement were used in about 85% of the data analyzed. These strategies, as shown in other studies, help build on pupils' previous knowledge and promote their language development. They do so by using what the pupils already knew, their funds of knowledge (González et al, 2005) and working within their zone of proximal development (Vygotsky, 1978) in order to build on their understandings of the content being studied. Given the fact that recall and reinforcement appear in most of the vignettes shown here, more examples will be explored throughout the other subsections.

4.2.5 Spelling and Word Stress

In vignette 16, T1 implemented an activity about the parts of a plant. The children recalled its parts by coming up to the board, where she had drawn a plant, and labeled it. After

they finished, T1 asked them, in English, to check if all parts of the plant were correctly placed

and spelled. Sibele went to the board, and as she tried to correct a word, she misspelled it when

saying it aloud. T1 scaffolded the exchange by helping her spell the word correctly in English

(demonstrating the Portuguese versus the English pronunciation). The other children also

participated in the correction as she wrote the word on the whiteboard, thus using the correction

of pronunciation for content.

Both T1 and T2 modeled the use of spelling, both with English and Portuguese

pronunciation, during the study. This strategy was used for different purposes and many times

utilized in conjunction with word stress (used both by Sibele and T1 in this exchange), a fact that

was very prominent already at day 6 of observations. This vignette also brings other examples of

strategies used by T1, such as the use of English for the clarification of instructions, questioning,

eliciting, and the use of visual aids (Whiteboard and drawing).

Vignette 16

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Now close your books and I will ask you to come up and correct. Sibele, is everything correct for you?	Eliciting	Use of English for the clarification of instructions
	Sibele comes up and writes one word on the whiteboard with a different colored pen: STAMEN	Visual aids Whiteboard	
T1	Because you wrote it so small, can you write it again?		Use of English for the clarification of instructions
Sibele	|S| |T| |E| *[stressed each letter aloud as she wrote it on the whiteboard]*	Spelling Word stress	
T1	Are you sure you say [e] for the letter E *[stress added]*?	Spelling Word stress Questioning	Use of English versus Portuguese pronunciation

	The other children correct her aloud and pronounce [a:] *for the letter A.*	Spelling Word stress	Use of correction of pronunciation for content

Note. Data from day 6, NSS class on parts of a plant.

While in the previous example Sibele initiated the use of spelling, in the vignette that follows the spelling was elicited by T1. During a NSS lesson, T1 showed two YouTube videos about ecosystems as a multimodal resource. After watching the videos, the children had to complete an activity in their workbook where they had to differentiate between living and non-living things. In vignette 17, Carla used the word *squirrel*, and T1 asked how to spell it. T1, through the use of spelling and pronunciation, used these strategies to scaffold the exchange and to get Carla to think aloud. Carla then navigated through her knowledge of English and Portuguese pronunciation to complete the task at hand. In translanguaging pedagogy, it is important to look at how pupils language in the process of a lesson. For Kleyn & García (2019), "By allowing and encouraging students' translanguaging during the process," the teachers make sure that students "are able to use all their linguistic resources to develop understandings" (p. 7). Carla used multiple structures that had already been modeled by her teachers, as she used pupil-directed translanguaging strategies such as the use of English for keywords and the use of Portuguese versus English pronunciation, and scaffolding strategies, for instance, such as spelling, HDYS and word stress, so as to make meaning of the content at hand.

Vignette 17

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Ok. Letter E, Carla.		Use of English for the clarification of instructions
Carla	Squirrel.		Use of English for keywords
T1	Squirrel. How do you spell "squirrel?"	Reinforcement Spelling	

Carla	|s| *[English pronunciation]*	Spelling	
T1	|s| *[English pronunciation]*	Reinforcement	
Carla	How do you say |q| *[Portuguese pronunciation]*?	HDYS	Use of Portuguese versus English pronunciation
T1	|q| *[English pronunciation]*	Spelling	
Carla	|q| |o| *[English pronunciation]*		Use of Portuguese versus English pronunciation
T1	|u| *[English pronunciation]*		Use of English versus Portuguese pronunciation
Carla	|u| |ai| *[corrects herself]* |i| |r| |e| |l|	Spelling Word stress	
T1	Ok. It's two |r|s, ok? Squirrel.		Use of correction of grammar for content
Researcher	Yes, double |r|.		Use of English for the teaching of grammatical patterns in NSS
T1	Squirrel. Double |r| Ok.	Reinforcement	

Note. Data from day 10, NSS class on ecosystems.

The researcher, in the previous exchange, also modeled the use of English for the teaching of a grammatical pattern in the NSS lesson by using the word *double*, a structure which T1 had started using in her lessons when spelling was used. Spelling as a scaffolding strategy helped the children in understanding the difference between the English and Portuguese pronunciation, their two named languages. In turn, children became more aware of the linguistic features they could use to language. Word stress was also an important scaffolding strategy used by all participants in the study, and its use by the teachers was polished throughout the feedback given after their reflections and consequently, modeled several times for the pupils who also appropriated this strategy to their repertoires.

4.2.6 Questioning

Questioning appeared as a significant scaffolding strategy used by all participants. In vignette 18, questioning was mostly done through English by T1. In the beginning of the

exchange, T1 asks "what's knowledge?" and she continues building on the pupils' responses by continually questioning about the different life processes of plants. T1 also calls Felipe's attention by stating that "When I ask, you have to try in English, otherways is always T1 speaking in English and you in Portuguese." According to García & Otheguy (2019), "When speakers language, they are deploying a unitary linguistic repertoire, that is, a single aggregation of lexical and structural resources" (p. 9). As T1 tells them to make an effort to use their vast linguistic knowledge, she tells them that their full repertoire is allowed in the CLIL classroom and that she is there to facilitate this process. The fact that she elicits English from the pupils does not mean that she did not allow them to use Portuguese in the NSS lesson. Portuguese was welcome in the classes and used many times to help clarify content.

Portuguese was used in this exchange for the delivery of a word-by-word translation elicited by T1 and by Felipe when completing the word "reprodução" **[reproduction]**, where he used Portuguese for the lack of English vocabulary, in addition to the use of Portuguese versus English pronunciation by the pupils when saying the word *"romã"* **[pomegranate]**. On the other side, English features abound in this vignette, where questioning was used to help the pupils understand the content. The use of English is done for the clarification of content (T1, Vasco, Martinho, and Bruce) and the clarification of instructions (T1), as well as for keywords (T1, Vasco and Bruce). Scaffolding strategies were used by T1: recall, word stress, classification, reinforcement, and visual aids (PowerPoint, images, whiteboard and body gestures).

Vignette 18

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	I am going to show you a presentation and ask you questions about last year – your	Recall Word stress Questioning	Use of English for the clarification of instructions

	KNOWLEDGE – what's knowledge?		
Children	Conhecimento. **[Knowledge.]**	Word-by-word translation	
T1	*T1 repeats the word knowledge.*	Reinforcement	
T1 opens the first slide	Can you identify the types of plants?	Visual aids PowerPoint Questioning	
	Rafael stood up and showed the trees. She had a pomegranate tree and the children kept trying to guess what it was, anglicizing the word "romã". **[pomegranate]**	Body gestures	Use of Portuguese versus English pronunciation
T1	POMEGRANADE. It's a new word for you. *[as she wrote it on the whiteboard]*	Whiteboard Word stress	Use of English for the clarification of content
	T1 had 6 photos with trees, flowers and bushes.	Visual aids	
T1 repeated	Three different types. Let's see if you remember.	Reinforcement	
T1 continued to the second slide	Do you remember their life processes?	Recall Questioning	
	There were photos with examples and T1 wrote the following on the whiteboard: N __ __ __ __ __ __ __ __ I __ __ __ __ __ __ __ __ __ __ R __ __ __ __ __ __ __ __ __ __ __	Visual aids Whiteboard Classification	
T1	Who can tell me what the first word is?	Questioning	
Vasco	Nutrition, it's eating.		Use of English for the clarification of content and for keywords
T1	Do plants eat hot dogs?	Questioning	
Vasco	Plants make their own food.		Use of English for the clarification of content

T1	Interaction. Give me an example.		Use of English for keywords and for the clarification of instructions
Children	Play, talk.		Use of English for keywords
T1	Do animals talk?	Questioning	Use of English for the clarification of content
Martinho	Animals make sounds.		Use of English for the clarification of content
T1	Talk is for humans.		Use of English for the clarification of content
Felipe	Reprodução. **[Reproduction]**		Use of Portuguese for the lack of English vocabulary
T1	When I ask you have to try in English otherways is always T1 speaking in English and you in Portuguese.	Reinforcement	
Bruce	Have babies?		Use of English for the clarification of content
T1	Who? Do plants have babies?	Questioning	Use of English for the clarification of content
Bruce	Mammals, humans.		Use of English for keywords
T1	Let's remember the parts of a plant.	Recall	

Note. Data from day 3, NSS class on plants.

The development of new language practices are acts of knowing and doing (Feller & Vaughan, 2018; García & Wei, 2017). By questioning, teachers act in these students' zone of proximal development and model linguistic and multimodal practices that go beyond their repertoire, thereby contributing to their language development. As this strategy was also used throughout the dataset (here presented on day 3 of observations), similarly to recall and reinforcement, more examples are interspersed in the findings section.

4.2.7 Word-by-Word Translation

In vignette 19, the children were developing a project on habitats. In order to bring the materials from home, the children had to use their funds of knowledge (González et al, 2005) and to discuss their roles within their groups. T1 used a PowerPoint, a visual aid and multimodal resource, to help explain the process. By using questions, she elicited Vasco's contribution to do a word-by-word translation of the word *knowledge*. She thus allowed him to use his Portuguese linguistic repertoire. In this vignette, different strategies were used by T1, naming the use of English for the clarification of instructions and of content, funds of knowledge, questioning, word-by-word translation, modeling, recall and. Pupil-directed translanguaging was also present as Vasco tried to spell the word *knowledge* followed by a word-by-word translation of T1's sentence and by Bruce contributing to the exchange by using Portuguese for the lack of English vocabulary for the word *imaginação* **[Imagination]**. Word-by-word translation was many times elicited by the teachers and repeated by the pupils.

Vignette 19

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	You are going to start task 2. Task 1 was to design your habitat and give each student a task, what they had to bring, the materials, okay? Now, you are going to build your habitat with your materials, and I know some people have asked me for brown paper. You have this week to finish it, but you have something important that you have to remember, that T1 is evaluating you. So, what do you have to remember? Are you using the ideas that you put in your task 1? Are you using	Recall Word stress Questioning	Use of English for the clarification of instructions

	the knowledge, do you know this word, "knowledge?"		
Children	No. *[as they shook their heads]*	Body gestures	
T1	Knowledge means conhecimentos. So, are you using the knowledge that you learnt in your previous lessons? Like last week and the week before. Are you using your knowledge?	Word-by-word translation Funds of knowledge	Use of English for the clarification of content
Bruce	Imaginação. **[Imagination]**		Use of Portuguese for the lack of English vocabulary
T1	No, not imagination. Are you using your "knowledge," Vasco, can you translate it for me?	Modeling Eliciting	
Vasco	/k/ /n/	Spelling	
T1	Not spell, translate, into Portuguese. What does this question mean? Are you using the knowledge you learnt in the previous lessons?	Questioning	Use of English for the clarification of instructions
Vasco	Tu estás a usar o conhecimento que aprendestes nas **[Are you using the knowledge you learnt]**	Word-by-word translation	Use of Portuguese for the clarification of content
Bruce	Aulas passadas? **[in the previous lessons?]**	Word-by-word translation	Use of Portuguese for the clarification of content
T1	Okay. Because if you are building a habitat about a desert, and you put an artic fox on your desert, then you haven't learnt anything, okay?		Use of English for the clarification of instructions

Note. Data from day 11, NSS class on habitats.

In vignette 20, during a NSS lesson on plants on day 4, T2 stepped in and did a word-by-word translation of the opposites through teacher-directed translanguaging. She also used a lot of body gestures as a multimodal resource. T1 then asked the children to open their workbook and complete a comparison activity where they had to look at pictures and complete sentences with taller than, thicker than, and so on. Many translanguaging and scaffolding strategies were present

in this exchange, the most prominent ones being the use of word-by-word translation and of visual aids as a multimodal resource, such as body gestures and the whiteboard. Word stress was also central to highlight the main keywords in the lesson. Portuguese and English linguistic features were used for the clarification of content. In both vignettes (19 and 20), T1 and T2 are eliciting the pupils' named languages to aid in the meaning making process.

Vignette 20

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T2	O que é thin? **[What is thin?]**	Recall Comparison Questioning	
Children	Fino. **[Thin.]**	Word-by-word translation	Use of Portuguese for the clarification of content
T2	O que é thick? **[What is thick?]**	Recall Comparison Questioning	
Children	Grosso. **[Thick.]**	Word-by-word translation	Use of Portuguese for the clarification of content
T2	O que é short? **[What is short?]**	Recall Comparison Questioning	
Children	Pequeno **[Small.]**	Word-by-word translation	Use of Portuguese for the clarification of content
T2	Vocês nao podem confundir pequeno, curto e baixo. **[You cannot mix up small, short and low.]** The tree is "low." Helena is "short." *[children laugh].* The branch is "short."	Word stress	Use of Portuguese for the clarification of content Use of English for the clarification of content
Children	O galho é baixo. **[The branch is low.]**	Word-by-word translation	
T2	Again, curto. **[Again, short.]**	Reinforcement	
Children	Short.	Word-by-word translation	

T2	Long.		Use of English for keywords
Children	Longo. **[Long.]**	Word-by-word translation	
T2	Low.		Use of English for keywords
Children	Baixo. **[Low.]**	Word-by-word translation	
T2	High.		Use of English for keywords
Children	Alto. **[High.]**	Word-by-word translation	
T2	Então, the branch is short? **[So, the branch is short?]**	Questioning Reinforcement	
Children	O galho é curto. **[The branch is short.]**	Word-by-word translation	
T1	Para altura nós tambem temos tall. **[For height, we also have the word tall.]** When you talk about people – tall/short; when you talk about trees – high/low *[as she writes the words on the table she had written on the whiteboard].*	Whiteboard Body gestures	Use of Portuguese for the clarification of content Use of English for the teaching of grammatical patterns in NSS
T1	Now let's see if you learned what you read about – p. 21 in the workbook.	Reinforcement	Use of English for the clarification of instructions

Note. Data from day 4, NSS class on plants.

After the exchange, children worked at their tables. The researcher, sitting on a table with Vasco, Lia and Bruce, scaffolded the activity by allowing the children to respond to each other's questions. Lia approached the researcher and said that she did not understand what *taller than* meant. Vasco jumped in and said, "It's like this," as he used his hand gestures to demonstrate the concept of *mais altas* **[taller than]** without resorting to any linguistic features. Lia immediately understood and moved on to complete the activity. Some minutes later, Bruce also asked the same question; however, as Vasco tried to explain through his newfound multimodal resource, Bruce was still unsure of the meaning of the words. Vasco then stated that "Trees are taller than bushes" and used pupil-directed translanguaging by stating that "As árvores são *MAIS ALTAS*

que os arbustos," emphasizing the words in italics. Vasco, his peers and their teachers' linguistic

practices are "influenced by their social interactions and context" (Kleyn & García, 2019, p. 2),

and word-by-word translation as an embedded unit of analysis went beyond switching between

two different codes as these processes of meaning making were not clearly assignable to one

'code' or another (Grosjean, 1982).

In the previous example, although Vasco did a word-by-word translation, he used word

stress to emphasize the content at hand, and he navigated through his full linguistic repertoire,

also including body gestures, to help his peers. Thus, the word-by-word translation present in

this study is seen from a translanguaging perspective rather than a code-switching perspective

given the reasons why the participants chose some linguistic features instead of others. Many of

these choices were related to what they already knew, or their funds of knowledge (González et

al., 2005), a concept which will be shared in the next section.

4.2.8 Funds of Knowledge

Vignette 21 shows how different strategies used by the teachers serve different purposes

in this third-grade classroom. Amongst these purposes is modeling the use of translanguaging as

a pedagogical strategy (García & Wei, 2017). These strategies enrich not only their students'

unique linguistic repertoire but also demonstrate the range of multimodal signs that are allowed

in their academic and everyday communication (García & Otheguy, 2019). These features were

present in a NSS class where T1 was discussing personal versus mass communication with her

pupils. They were talking about the difference between a landline and a mobile phone, a

comparison elicited by T1 which required the students to use their funds of knowledge (González

et al, 2005). As Carla had mentioned, she had a landline phone at her house which did not have a

cord, and her peers were confused about why it was not called a mobile phone.

Furthermore, T1 used teacher-directed translanguaging in many parts of the exchange to help them understand the concept. She used her full linguistic and multimodal repertoire for the clarification of content, as she also used visual aids such as body gestures and the whiteboard for her explanation. Carla and Jonas participated by offering their understandings drawing from their Portuguese linguistic repertoire and using pupil-directed translanguaging, which was also present in the word-by-word translation by Bruce and the pupil's overall use of English for keywords. Most importantly, all children were bringing their funds of knowledge into the exchange to make meaning of the content, both through the use of Portuguese for clarification of content and the use of Portuguese versus English pronunciation.

Vignette 21

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Ok, some people have, some people don't. Where is this one, this one? What do you call this one?	Classification Funds of knowledge Eliciting	Use of English for the clarification of instructions
Children	Phone.		Use of English for keywords
T1	It's a phone. But what do you call it?	Reinforcement Questioning	
Child	Mobile. *[Portuguese pronunciation]*		Use of Portuguese versus English pronunciation
T1	Mobile? *[English pronunciation]*	Reinforcement Word stress	
Children	Phone.		Use of English for keywords
T1	Qual a diferença do "fixo" e "mobile phone?" *[as she wrote the words on the whiteboard]* **[What is the difference between a landline and a mobile phone?]**	Comparison Word stress Whiteboard Questioning	
	- Overlap speech.		

Jonas	Fixo só dentro de casa. Depois o mobile vai com as pessoas para qualquer sítio**.** **[It is fixed just inside the house. Then the mobile goes with people anywhere.]**	Funds of knowledge	Use of Portuguese for the clarification of content
T1	E porque que é "mobile?" **[And why is it called mobile?]**	Word stress Questioning	Use of Portuguese for the clarification of content
	- Overlap speech.		
Bruce	Móvel. **[Movable.]**	Word-by-word translation	
T1	E o que é "móvel?" **[And what is movable?]**	Questioning Word stress	
	- Overlap speech.		
T1	Ok, all right.		Use of English for the correction of behavior
Carla	Que pode ir pra qualquer lado. **[It can go anywhere.]**		Use of Portuguese for the clarification of content
	- Overlap speech.		
Carla	É um telefone que não tem fio mas está dentro da casa. **[It is a phone that does not have a cord, but it is inside the house.]**	Funds of knowledge	Use of Portuguese for the clarification of content
T1	Mas é fixo. Eu vou explicar esse tipo de questões. Vocês vão dizer assim: "com o meu telefone em casa, eu consigo andar para todo o lado." Pronto. E eu vou dizer assim: "Mas se tu tentares sair com o telefone para fora da tua casa para fazer um telefonema, não vais conseguir." **[But it is fixed. I am going to explain about this. You are going to say: "I can walk around with my home phone." Then, I am going to say: "But if you try to walk outside your house, you won't get a line."]**	Body gestures	Use of Portuguese for the clarification of content

Note. Data from day 16, NSS class on personal versus mass communication.

This exchange happened on day 16 of observations, during the last month of the study. Both T1 and the pupils had already developed an array of strategies to make meaning of content in the NSS lessons; and yet, translanguaging was still ever present in their lessons. This happened given the need to use the pupils' funds of knowledge to understand the concepts of mobile and landline phones, concepts which they learned at their homes in Portuguese. T1, knowing that, used teacher-directed translanguaging and allowed the pupils to also use pupil-directed translanguaging.

4.2.9 How do you say and Como se diz

As mentioned in the previous section, the pupils used translanguaging and scaffolding strategies throughout the study, and their full linguistic repertoire was allowed in the classroom. As an emergent bilingual, Carla also had moments where she had to resort more deeply into her Portuguese linguistic features, even towards the end of the study as in the following vignette on day 15 of observations. Vignette 22 has many layers. In this exchange, there is both teacher-directed translanguaging and pupil-directed translanguaging as the pupils compare public and private transport. The exchange is shown in full given its richness in the different strategies used, such as the use of English to explain content used by Sibele, Carla and T1, word-by-word translation by Martinho, Sibele, Tito, Vasco and T1, the structure "how do you say" and "como se diz" used by Carla, and the use of funds of knowledge.

Vignette 22

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Yes. When you are an elderly person, you are over 65 years old usually. So 65, how do you say "elderly person" in Portuguese?	HDYS Word stress	Use of English for the clarification of content
	- Overlap speech.		

T1	Don't say velha. **[Old referring to objects]**		Use of Portuguese for the clarification of content
	- Children laugh.		
Martinho	Pessoa idosa. **[An elderly person.]**	Word-by-word translation	
T1	Idosa, ok? **[Elderly, ok.]** Most of the elderly people don't pay the full amount. Do you understand "the full?" They only pay?	Reinforcement Questioning Word stress	Use of English for the clarification of content
Sibele	Half.		Use of English for the clarification of content
T1	Very good, half. What is "half?"	Reinforcement Questioning Word stress	
Sibele	Metade do preço. **[Half of the price.]**	Word-by-word translation	
T1	Metade, ok? So they have a discount, ok? **[Half, okay.]**	Reinforcement	Use of English for the clarification of content
Tito	Desconto. **[Discount.]**	Word-by-word translation	
T1	And for the people, you were saying... Deficiente. **[Deficient.]** No, people with disability.	Eliciting	Use of English for keywords
	- Overlap speech.		
T1	Do they have a discount? They probably do.		Use of English for the clarification of content
Researcher	Yes, they do.		Use of English for the clarification of content
	- Overlap speech.		
T2	I am not sure how much it is.		Use of English for the clarification of content
T1	These people with disability also pay less. What is "less?"	Questioning	Use of English for the clarification of content
Vasco	Muito pouco. **[Very little.]**	Word-by-word translation	

T1	Now let's see if you learned what you read about – p. 21 in the workbook.	Reinforcement	Use of English for the clarification of instructions
T1	Menos. Less = menos. More = mais. Ok? All right. *[as she wrote the words on the board]*	Whiteboard Body gestures	
Carla	Me and my grandma, go to the, how do you say, "parque ecológico?" **[Ecologic Park.]**	Funds of knowledge HDYS Eliciting	
T1	Parque ecológico. **[Ecologic Park.]**		Use of Portuguese versus English Pronunciation
Carla	And one person is		Use of English for the clarification of content
T1	Is free?	Questioning	
Carla	Yes. And my grandma, como se diz "pagou?" **[How do you say "paid?"]**	CSD Eliciting	
T1	Paid	Word-by-word translation	
Carla	Paid one.		Use of English for the clarification of content
T1	One ticket, ok.	Reinforcement	

Note. Data from day 15, NSS class on public versus private transport.

In this vignette there is also the use of questioning by T1 as a scaffolding strategy together with the use of reinforcement after the pupils' responses. The use of English for keywords was also important in this exchange as it supplemented the content being taught in the NSS class, and T1 used the whiteboard and body gestures as visual aids to deliver the content. Carla, on the other hand, used what she already knew and had experienced, i.e. her funds of knowledge (González et al., 2005), to make meaning of content. She demonstrated her understanding of the function of public transport and her grandma's age discount through pupil-directed translanguaging. Sibele also contributed greatly to the exchange by using her knowledge in Portuguese to help her peers make meaning of important keywords. All of these happened

around the two main structures "how do you say" and "como se diz" which as it can be seen in many of the exchanges, permeated most of the study. As the time progressed and through their teachers' reinforcement, the pupils started using the English version more frequently although sometimes, and most likely involuntarily, they translanguaged into the Portuguese version not for lack of English but because it was natural to them to use both structures in the classroom. This natural occurrence of translanguaging was highlighted by T1 and T2 in their reflections.

4.2.10 Eliciting

In vignette 23, Carla continued using her funds of knowledge during the previous NSS class. As T2 and T1 questioned why public transport is better than private transport, they elicited Carla's participation. Carla used a personal example as she tried to say that public transport is better than private transport because elderly people and people with disabilities pay less for public transport. At first, she forgot the verb *take*, which is reinforced by T2 in its correct form *takes* by using the correction of grammar for the teaching of content. In the sequence, in lack of English vocabulary, she translanguaged into Portuguese. T1 and T2 used English to explain content, while T2 also resorted to Portuguese. This exchange happened because T1 knew that Carla had to be pushed to participate in order to aid in her linguistic development. Thus, T2 used eliciting, a scaffolding strategy used in many other exchanges where the teachers wanted specific students to participate in order to help their peers make meaning of the content. This eliciting was done by the means of their full linguistic repertoire composed of Portuguese and English features.

Vignette 23

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T2	You have to listen to the question. Why is it better for us to use public transport? "Públicos," estamos a falar de transportes públicos. **[Public, we are talking about public transportation.]** E Carla, o que dissestes, Carla? **[And Carla, what did you say, Carla?]** Because?	Comparison Questioning Word stress Eliciting	Use of Portuguese for the clarification of instructions
Carla	Because they many people.		Use of English for the clarification of content
T2	Takes many people.	Reinforcement	Use of correction of grammar for content
T1	It takes many people. And why is that good?	Reinforcement Questioning	
Carla	The people [inaudible] eu queria dizer o que estavámos a dizer antes, idosas. **[I wanted to say what we were talking about before, elderly.]**		Use of Portuguese for the lack of English vocabulary
T1	Elderly? Elderly people.		Use of English for keywords
Carla	Elderly and people com deficiências. **[Elderly, and people with disabilities.]**		Use of English for keywords Use of Portuguese for the lack of English vocabulary
T1	"Disabillity." People with disability.	Reinforcement	Use of English for keywords

Note. Data from day 15, NSS class on public versus private transport.

Among her peers, Carla excelled in bringing her background knowledge into the classroom in order to communicate and make meaning. During day 17 of observations, in vignette 24, T1 was teaching about communication during a NSS lesson. Carla, at first, tried responding by using her English knowledge, saying that advertisements are part of *mass communication* and that they give *information about products*. As T1 continued questioning,

Carla translanguaged to again demonstrate that she made meaning of the concept. T1 reinforced her response by writing a synonym on the board, the word *ads*.

Vignette 24

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	Put your hand up if you know what "advertisement" is. I don't want Portuguese.	Recall Eliciting	Use of English for the clarification of instructions
	[Children were giving the literal translation]		
Carla	Mass communication.		Use of English for the clarification of content
Vasco	Products.		Use of English for the clarification of content
Carla	Information about products.		Use of English for the clarification of content
T1	Let's say I want a new car, a Clio, where do I look for it?	Questioning	
Carla	Publicidade, **[Publicity]**		Use of Portuguese for the clarification of content
T1	We also use a small word for it, "ads."		Use of English for keywords
	[Writes it on the whiteboard]	Whiteboard	

Note. Data from day 17, NSS class on communication.

In this example, T1 did not elicit a response from one specific pupil, but she elicited a response in English. T1 also used recall, the whiteboard as a visual aid, questioning and English for the clarification of instructions and for keywords. English was used for the delivery of content both by Vasco and Carla, who also used Portuguese for the clarification of content.

4.2.11 Modeling

As a scaffolding strategy, modeling was used many times by T1 and T2. In vignette 25, T1 had started a review on ecosystems in the NSS lesson. They were completing a task where

they had to use keywords to complete a text. Carla gave her response, and T1 paraphrased her by correcting her grammar for the purpose of teaching content. According to Kleyn & García (2019), "The focus of teaching is not the language and its structure per se, but the development of the learner's language repertoire as they add new features that become their own, and as they develop understandings of which features are appropriate for communication" (p. 11). When Carla read the second time, she corrected herself orally, validating T1's scaffolding strategy, modeling.

Vignette 25

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T1	So, complete the text about ecosystem using the words in the box. And the pictures are here to help you, right? Ok.	Recall	Use of English for the clarification of instructions
Carla	Because make tunnels and water can circle.		Use of English for the clarification of content
T1	They *[wait time]* so *[wait time]* and water can CIRCULATE. *[emphasis on circulate]*	Modeling	Use of correction of grammar for content
Carla	Because they make tunnels and air and water can circulate.	Reinforcement	Use of English for the clarification of content

Note. Data from day 18, NSS class on ecosystems.

Carla's own natural development was one of the most visible during the study. T1 and T2 constantly reflected on her development during their written and oral reflections and validated her efforts during class time by inviting her to participate in most lessons. In vignette 26, in the last day of observations, T2 started by talking about the main functions of maps: To show where things are. T1 translanguaged into Portuguese to complete T2's explanation. T2 then elicited Carla to model the spelling of the word *train* to Belem. As Carla responded, she spelled the word in English to help her peer make meaning.

Vignette 26

Speaker	Transcript	Scaffolding Strategies	Translanguaging Strategies
T2	What do maps show us? Teacher T1. is always saying: "I'm going to show you." T1 está sempre a usar esta expressão. **[T1 is always using this expression.]**	Recall Funds of knowledge Questioning Word stress	Use of Portuguese for the clarification of content
T1	Mostrar. **[To show.]**	Word-by-word translation	
T2	Carla, spell "comboio" in English. **[Carla, spell "train" in English.]**	Modeling Spelling Word stress Eliciting	
Carla	|t| |r| |a| |i| |n| *[English pronunciation]*	Spelling	Use of English versus Portuguese pronunciation

Note. Data from day 19, NSS class on maps.

In all vignettes shown in this section, the pupils showed their knowledge of when and why they should translanguage in the class. When a pupil translanguages, she is putting into practice various metalinguistic and metacognitive skills, which are very different from the ones that monolingual children possess (García & Beardsmore, 2009). The pupils in this study drew from their full language repertoire and used their multimodal skills in order to make meaning of the content in the CLIL classroom. The teachers aided in this process by modeling different types of translanguaging and scaffolding strategies. All vignettes shown here, and the ones used for data analysis, demonstrate an intricate use of language (s) further discussed below.

5. Discussion

This section highlights how and why translanguaging and scaffolding practices happened in a Content and Language Integrated Learning (CLIL)/ Bilingual classroom. It also highlights the pedagogical implications of language (s) use as T1 and T2 reflected on their teaching pedagogies and on the role of translanguaging in their classroom. Teachers and pupils in this

study had the opportunity to build on their strengths and acknowledge the realities and complexities of their own linguistic practices in order to improve teaching and learning. Thus, by outlining the different ways in which teachers and children used language, this study points to the translanguaging and scaffolding strategies performed by them. The more pupils know about a concept, the more they can language and make meaning (Coyle, 2018; Feller, 2015; García & Wei, 2017; González et al, 2005). The teachers in this study modeled different strategies to aid pupils in this process, and they also learned new ones as they explored their own pedagogical practices.

At first, T1 and T2 did not know what translanguaging entailed. As the study progressed and they reflected on their teaching pedagogies, T1 and T2 started seeing translanguaging as a pedagogical tool for their lessons (García & Wei, 2018). When asked about the language and learning strategies that she used as a learner when trying to use her named languages, T1 responded: Translanguaging, grouping, using key words, diagrams and mind maps (T1, written reflection 4, May 15, 2019). The same question was posed regarding her pupils' strategies, and T1 listed the following practices: When words have a similar phonetic sound, they are able to understand and use it in both languages; sometimes they use both languages to communicate an idea; simplify structures; use synonyms; translation; and translanguaging (T1, written reflection 4, May 15, 2019). As it can be seen, many of the strategies highlighted by T1 are part of the categories used for data analysis, and different ways to scaffold meaning-making as well as translanguaging are validated.

In this particular private school, there is a whole school effort to expand the children's linguistic knowledge of English. The educators are "free to encourage bilingual students to leverage their entire semiotic repertoire and to select from their full repertoire the hints that are

most appropriate to communicate a message to listeners" (García & Otheguy, 2019, p. 10). As the study progressed, and T1 and T2 reflected on their practices and those of their pupils, they became more aware of that. Even though, for example, T1 elicited the use of English or Portuguese in the classroom, she did not do so because of the power hierarchy embedded in these named languages. Her choice stemmed from the fact that the pupils have to learn content in both languages. Thus, she consciously moved along her language(s) repertoire and translanguaging was present during the whole period of data collection. Whereas English was mostly connected to the academic content, Portuguese was linked to interactional instances, especially when what was being talked about connected to the pupils' funds of knowledge (González et al, 2005). Knowing that, T1 and also T2 allowed pupils to use both their named languages in the NSS and EL lessons.

Translanguaging as a scaffolding strategy was more purposefully used towards the end of the study given the fact that the teachers and the pupils developed scaffolding strategies to help them communicate. These strategies gave the pupils tools to decide when and why to use language (s). Through the teachers' modeling, the pupils' developed language competence to communicate in varying degrees by drawing from a continuum of linguistic and multimodal features (García & Wei, 2018), which was composed of English and Portuguese features and many other body gestures, visuals and scaffolding strategies presented in the findings. This is the reason why the participants still translanguaged even during the last month of the study. Under CLIL principles (Coyle, 2018), scaffolding helped them build on their previous knowledge (González et al., 2005) by expanding their zone of proximal development (Vygotsky, 1978). The teachers and the pupils did not use scaffolding to avoid translanguaging. Rather, they used both as strategies to make meaning of the content in the CLIL classroom.

Translanguaging and scaffolding were present at all times for the delivery and discussion of content and for communication purposes (Nikula & Moore, 2016) and it was either teacher-directed (Lewis et al, 2012b) or pupil-directed (Lewis et al, 2012a). That means that both pupils and teachers used their unique linguistic repertoire, here represented by their named languages (English and Portuguese), to communicate and to understand and teach content. Both T1 and T2 modeled both languages to their pupils. By following a dynamic bilingual education program (García & Kleifgen, 2010), these teachers allow pupils to use multiple discursive practices to make sense of their worlds, and in turn, they allow themselves to act as facilitators and learners at the same time. In the NSS class, T2 serves as the facilitator as she translanguages drawing from her Portuguese linguistic features. As mentioned in the findings, there was a total of 27 strategies used by both teachers and the pupils in this classroom, and examples range from the use of translanguaging in English and Portuguese for different purposes to the use of specific scaffolding strategies. In vignettes 1, 4, 5, 11, 12, 13, 14, 15, 20, 22, 23, and 26, T2 used a variety of strategies, namely the use of Portuguese and English for the clarification of content, the use of Portuguese for the correction of behavior, modeling, classification, recall, word stress, body gestures and funds of knowledge. Although the number of strategies used by T2 was smaller than the ones used by T1 in the dataset, she made an effort to translanguage (García, 2009) into English to deliver the content to the pupils. She used her whole language continuum to help her pupils develop their language and content skills, through the use of translanguaging and scaffolding strategies.

T1 has continually worked on developing her knowledge as a CLIL/ bilingual teacher. Pavón and Ellison (2013) state that "in theory, the teachers of content material should have sufficient linguistic competence to be able to pass on academic content in a second language as

well as an in-depth knowledge of their own subject" (p. 70). Given the fact that T1 was both the content teacher for the NSS class and the EL teacher, she was able to build bridges in content and language teaching between the two classes. For example, the teaching of grammatical patterns in the NSS classes, as demonstrated in vignettes 2, 3, 9, and 20, aided in the comprehension of content by the pupils. T2 also used this strategy in vignettes 11 and 12 and the researcher in vignette 17. T1 stated that "in the science lesson, I focus more on content but sometimes I put into context a grammar content that will be useful to work a science content" (T1, personal communication, March 3, 2019). Thus, language use was linked to the functional exponents used to make meaning (Ellison, 2014) in the NSS lessons rather than just the teaching of grammar. Throughout the six months of the study, T1 demonstrated her efforts to develop the children's linguistic repertoires, and the differences in the pupils' language production can be seen in the excerpts shown above.

As teachers engage in the practice of teaching, "they need to make explicit the interrelationship between content objectives and language objectives" (Coyle et al., p. 36), and thus, view the children's language practices as a continuum rather than separate parts. Further, teachers should use their whole linguistic repertoire, through translanguaging, to teach their pupils in such a way that scaffolding is constantly taking place in the classroom. Translanguaging is not only a way to "scaffold instruction, to make sense of learning and language; rather, translanguaging is part of the metadiscursive regime that students in the twenty-first century must perform" (García, 2011a, p. 147). According to T1 (T1, written reflection number 4, May 15, 2019), the approach she uses most is scaffolding based on the following strategies: Visual aids, short films, show and tell, and diagrams. She believes that pupils use the knowledge they have and use their mother language in between to help them communicate.

When translanguaging is oriented to language in content (Nikula & Moore, 2016), it has an "explicit language focus – often clarifying lexis/terminology important for the content area in question" (p. 6). Following these lines, T1 reported that sometimes pupils use the content they learned in the EL class to write and speak in the NSS classes, thereby reaffirming her strategy as valid. Her pupils, although in some examples using word-by-word translation as a scaffolding strategy, did not only translate their L1 to their L2 (and vice-versa) during the CLIL lessons (Coyle et al, 2010) but used language as a tool to make meaning.

In this study, teachers and children translanguaged (Baker, 2011; García, 2009; Feller & Vaughan, 2018) as they made sense of the language used for content delivery. Teachers scaffolded the pupils' linguistic development through the use of a range of both linguistic and multimodal features to clarify content, as shown in all vignettes above. For example, when T2 uses the cognate *extra* when teaching about the parts of a flower or when T1, in vignette 2, compares *florist* and *forest* by using a variety of strategies, such as using Portuguese and English for clarification of content, visual aids, how do you say, spelling, the teaching of grammatical patterns in NSS, classification, and word-by-word translation. In addition, there are two other important scaffolding strategies identified in the data: Questioning and eliciting. These strategies were used by themselves or in conjunction to help deliver the content and instructions. For instance, in vignette 18, T1 asked a series of questions "what's knowledge?" "can you identify the types of plants?" "do you remember their life processes?". In vignette 19, T1 uses questioning by stating "are you using the knowledge that you learnt in your previous lessons? and then elicits Vasco to help translate for his peers. As he translanguages, and although he performs a word-by-word translation, he demonstrates control over his linguistic repertoire by first trying to spell the word. The goal of translanguaging as a pedagogy (García & Wei, 2017) is

to make sure that emergent bilinguals "engage with rigorous content, access difficult texts, and produce new language practices through the integration of new knowledge" (García & Wei, 2017, p. 230). For Vasco, this keyword was already familiar, but not for his peers, and both T1 and him made sure to help the other pupils understand it. As such, T1's use of questioning and eliciting resembles the dynamic bilingualism seen is some classrooms where new linguistic features are added to the pupils' repertoire not to the expense of one of their named languages, but as a continuum.

An important aspect of this study is the range of strategies used through either pupil-directed translanguaging or teacher-directed translanguaging. The latter, as seen in all vignettes, is used through strategies such as recall, reinforcement, the use of English and Portuguese for clarification of content, word-by-word translation, modeling, the use of diverse visual aids, the use of funds of knowledge, the modeling of spelling, the use of cognates and false cognates, among others. The first, exemplified by several pupils but more prominently through Vasco and Carla, demonstrate how important it is to also look at translanguaging pedagogy from the pupil's perspective. Vasco, on one hand, was very knowledgeable of his surroundings and aware of why he should translanguage depending on the context, purpose and his interlocutors (Baker & Lewis, 2017). For example, he constantly paraphrased his teachers in Portuguese in order to clarify content for his peers, such as when he explained *hurt with words* as *insultar* in vignette 7. He also knew when to draw from his multimodal features, for instance when he described the concept *taller than* both through hand gestures and as *mais altas* in the sequence of vignette 20. In vignette 8, he explains the word *common* as *algo que todos tem* **[something everybody has]** and in vignette 6 he states that *surroundings* means *o que está a nossa volta* **[everything that is**

around us]. His linguistic and multimodal output stem from his own internal perspective on language(s).

Likewise, Carla's linguistic repertoire adapted over time, in an ever-changing manner, as she became more and more aware of her full linguistic and multimodal system. In vignette 4 (Day 13 of observations), Carla drew from her English repertoire with more confidence, and she used English to clarify instructions on her relief map project, to question and to find keywords. In vignette 10 (Day 15 of observations), T1 elicited Carla to answer, "what is the advantage of the helicopter [over planes]?" and Carla responded "Hum ... the helicopters, *como se diz aterrar*? **[How do you say "land?"]** … land in the difficult place". Carla also drew immensely from her own funds of knowledge to make sense of the content, and as such, she used her whole language continuum for that such as for example in vignette 20 (when comparing personal versus mass communication) and 21 (when comparing public versus private transport). Carla and Vasco and the other pupils in this study are but a sample of the depth and importance of understanding when and why children translanguage in bilingual classrooms, especially in a country such as Portugal, where even though they are exposed to English through different media, they do not have many chances to practice their academic English features outside of the CLIL classroom. According to Kleyn & García (2019), for teachers this means "negotiating the instructional design while also making unplanned changes to best facilitate student learning and understanding" (p. 5). It shows how teachers, and teacher-directed translanguaging pedagogies, are crucial in this process as they place pupils at the core of instruction through the use of many of the scaffolding strategies highlighted here.

A current concern when it comes to the relationship of language and content in CLIL contexts is that the "foreign language may slow down proceedings so that less subject matter can

be covered" and also that "lower language proficiency may result in reduced cognitive complexity of the subject matter presented and/ or learned" (Dalton-Puffer, 2007, p. 5). T1 and T2 found different ways to avoid these issues. Translanguaging for the purpose of teaching content (Nikula & Moore, 2016) was noted in more than a third of the data collected. The teachers moved along their language continuum to ensure that pupils were using their critical thinking and higher cognitive abilities and used language as a learning tool (Coyle, 2018; Ellison, 2014). The teachers used language *for* learning by giving access to all the language that the pupils needed to engage in meaning-making for example how to work in a group and how to do certain types of activities. Language *of* learning was constantly shared through the keyword and concepts being taught in the NSS lessons. They also used language *through* learning when they asked pupils to talk about what they thought they had learned and what they had understood.

T1 stated that "when students are able to bring together what they have learned in the English class and use it in the science class to think and to communicate about what they have learnt as well as show their doubts," (T1, written reflection number 3, March 3, 2019), her language objective is being met. She concluded by stating that "working in a CLIL context has contributed to language awareness, acquiring new vocabulary related to science and the environment and a lot of motivation in learning English as a second language," although sometimes "there are many concepts and vocabulary that students learn both in English and the mother language at the same time" (T1, written reflection number 2, February 10, 2019). These findings bring together *language use* among teachers and pupils and the *pedagogic implications* of using translanguaging and scaffolding strategies (Conteh, 2018; García & Wei, 2017), thereby responding to the questions posed by this study.

6. Conclusion

The pupils in this third-grade classroom used a range of strategies to aid them in the comprehension of content through another language, namely English. On many occasions, they not only copied the strategies used by their teachers but also explored other strategies to develop their bilingual skills. Although during informal interactions they preferred to use Portuguese, and many times they were allowed to do so, they still showed great progress in their English language abilities by the end of the study. This demonstrates that they were able to then draw linguistic features from their newly expanded unitary linguistic repertoire. Furthermore, the teachers also developed professionally as they reflected on their own practices and started to apply new strategies as they saw fit in the classroom. These strategies, highlighted throughout this study, may serve as examples of effective CLIL methodology for other bilingual teachers and teachers in bilingual programs.

As in Garcia and Kano's (2014) study of emergent Japanese-English speakers, teachers in this study were cognizant of their strengths and weaknesses. The teachers moved beyond only using a traditional CLIL framework as they included a translanguaging pedagogy where the dynamic language repertoires of their pupils were valued and their whole language continuum was allowed in the classroom. As Garcia and Wei (2017) point out, "although translanguaging is increasingly used by teachers, whether in sanctioned or unsanctioned situations, it is rare to actually find schooling situations in which students are being taught to translanguage as a legitimate practice" (p. 237). As the teachers added new language features to these emergent bilingual pupils's repertoire, they placed meaning-making at the core of instruction. This discussion is relevant as it raises a further pressing issue: How do we transform translanguaging into an established pedagogical practice in primary education in Portugal and beyond? In the

hope of supporting the use of translanguaging as an effective pedagogical tool, this study has highlighted relevant strategies used by both teachers and pupils in their bilingual development. It is recommended these strategies be shared among teachers and educators as effective tool for developing children's repertoires.

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APPENDIX A
Teachers' Reflection 1: Teachers' background

1) Where are you from?
2) What is your education background and qualifications?
3) What language (s) do you speak and how did you learn it?
4) With whom and for which purposes do you use your different languages?
5) When thinking of your students, do you purposefully choose one language over the other? For specific contexts and reasons? Why? How do you think this affects their language (s) development?
6) Open ended – think about the last month in your 3rd grade classroom and the languages practices happening there. What comes to your mind? How is bilingualism happening and what language strategies have you, the other teachers and the children used?

Teachers' Reflection 2: Children's language(s) background
1) How well do you know your students' language(s) background? Is this knowledge primarily from the classroom context or do you talk to parents about their children's language practices?
2) Can you give me examples?
3) How do you assess your students' language(s) development?
4) Can you give me an example of a student's language(s) development? In Portuguese or in English?
5) How are the parents involved in their children's language(s) development?
6) Think about the last month in your 3rd grade classroom and the languages practices happening there. What comes to your mind? How is bilingualism happening and what language strategies have you, the other teachers and the children used?

Teachers' Reflection 3: Lesson Planning
1) What is the bilingual program used by the school? How do you adapt it to your own classroom?
2) Which language objectives do you focus on during science/English?
3) How do you integrate them to the into the lesson plans? What about delivery? How have the students been performing on these objectives?
4) Can you give an example of language objectives being fulfilled by your student (s)?
5) Can you give an example of when an objective wasn't met?
6) How are you structuring your lessons so both languages are being used? Which strategies have you been employing?

Teachers' Reflection 4: Bilingualism
1) Have you ever had any formal instruction on theories of bilingualism? If so, what?
2) Why do you think it is important that the children learn more than one language, or not?
3) For the children, what aspects of language learning do you find most difficult?
4) What are some of the language and learning strategies that you, as a learner, use when trying to use both languages?
5) What about the children, what language and learning strategies have you seen them using while at school? Can you give me examples?

APPENDIX B
Pupils' Survey
Questionário Educandos

Codinome e idade *Pseudonym and age*	
Línguas faladas (1) em casa (2) na comunidade (3) na escola (4) outros ambientes, por exemplo: *Languages spoken (1) at home (2) at community (3) at school (4) other environments, example:*	(1) (2) (3) (4)
Quais línguas os membros de sua família falam? *Which language do your family members speak?*	
Qual língua eu falo com (1) mãe (2) pai (3) irmãos (4) avós (5) amigos (6) colegas da escola (7) professores (8) outros, por exemplo: *Who do I speak each language with (1) mother (2) father (3) siblings (4) grandparents (5) friends (6) school colleagues (7) teachers (8) others, example:*	(1) (2) (3) (4) (5) (6) (7) (8)
Na escola, quais línguas você fala, escreve ou lê e em quais disciplinas? (1) Falo – disciplina: (2) Escrevo – disciplina: (3) Leio – disciplina: *At school, which languages do you speak, write or read and in which subjects?* *(1) speak - subject:* *(2) write - subject:* *(3) read - subject:*	(1) (2) (3)
Por que você acha que é importante aprender mais de uma língua, ou não? *Why do you think it is important to learn more than one language, or not?*	

APPENDIX C

T1's Reflection 1: Teachers' background

1) **Where are you from?**

I was born in South Africa, where I lived until I was 16. In 1986 I came to live in Portugal in Vila Real.

2) **What is your education background and qualifications?**

I did my secondary schooling in Vila Real and then I came to Porto to study in the Faculty of Arts where I took a degree in Languages and Modern Literature – Translation (Linguas e Literaturas Modernas variante Tradução) in 1997. During this period I was working part-time as an English teacher in Language schools in Porto. Then in 2000 I took a second degree in Basic education – Portuguese-English (Ensino Básico variante Português – Inglês) in Escola Superior de Educação (ESE- Porto).

3) **What are your first and second language? Where and how did you learn them?**

Until I was 16, my first language was English and my second language was Portuguese. I learnt English at school and Portuguese at home and with a private tutor. Then when I came to Portugal, I had to learn Portuguese as my first language although I continued to study English.

4) **Do you speak any other language(s)?**

No, I don't.

5) **With whom and for which purposes do you use your different languages?**

I use English at work to teach my students and to communicate with some colleagues. I also use English with personal friends that have lived abroad and well as with my brother. I use Portuguese at work and with most of my close friends and family.

6) **When thinking of your students, do you purposefully choose one language over the other? For specific contexts and reasons? Why? How do you think this affects their language (s) development?**

In general, I use the English language in the CLIL context and language classes. However, I do use Portuguese when I feel that students are having a lot of difficulty in understanding a content and if the class teacher is no present to help me. I also use Portuguese in more informal situations e.g. solving conflicts between students, having to speak to students about their behavior or when students feel the need to speak about something personal. I think that working in a CLIL context has contributed to language awareness, acquiring new vocabulary related to science and the environment and a lot of motivation in learning English as a second language. On the other hand, there are many concepts and vocabulary that students learn both in English and the mother language at the same time.

7) **Open ended – think about the last month in your 3rd grade classroom and the languages practices happening there. What comes to your mind? How is bilingualism happening and what language strategies have you, the other teachers and the children used?**

Bilingualism is essentially happening in the Natural and Social Science lessons while I use the English language and the class teacher uses both the English and Portuguese. The students who are more confident try to communicate in English, although they also use their first language often. I use diagrams, presentations, films and visual aids to help me communicate with them and help build their knowledge.

T1's Reflection 2: Children's language(s) background

1) **How well do you know your students' language(s) background? Is this knowledge primarily from the classroom context or do you talk to parents about their children's language practices?**

I know their language background through parents as well as through students. Students often share their home backgrounds in the classroom.

2) **Can you give me examples?**

When students come to the primary school, we have a first meeting with parents to get to know details about the students and families. During the year, parents give us feedback about their child and where they show difficulties in the language.

Students in class talk about the different nationalities of their parents and I ask usually ask what languages they speak at home with them.

3) **How do you assess your students' language(s) development?**

Through tests, short quizzes and especially through how they interact in the classroom using the English language. But I also asses while correcting written language both in the English and NSS classes and fluency, pronunciation in reading.

4) **Can you give me an example of a student's language(s) development? In Portuguese or in English?**

This year we have a new student who arrived in our class with very little knowledge of the English language. This student has made significant development in the reading, the vocabulary and has also become more autonomous. I have also felt that in general most students have made significant development in the speaking.

5) **How are the parents involved in their children's language(s) development?**

Through feedback that I give parents on weekly or monthly basis. At the end of the term parents usually meet with me to talk about their child's development.

6) **Think about the last month in your 3ʳᵈ grade classroom and the languages practices happening there. What comes to your mind? How is bilingualism happening and what language strategies have you, the other teachers and the children used?**

First, an improvement in the interaction and use of the English language. More students are interacting with the teacher and using English and Portuguese to communicate, even weaker students. Bilingualism is happening with the science/ English Language teacher using English and the class teacher is using Portuguese and sometimes English.

The approach I use most is scaffolding based on the following strategies:visual aids, short films, show and tell, diagrams. Students use the knowledge they have and use their mother language in between to help them communicate. Sometimes students are using the contents they learnt in English class to write and speak in the Natural and Social Science classes. When the class teacher feels that students are understanding the contents in English, she uses Portuguese to help explain.

<div align="center">T1's Reflection 3: Lesson planning</div>

1) **What is the bilingual program used by the school? How do you adapt it to your own classroom?**

The bilingual program in our school is using the CLIL approach. In our curriculum this approach is used in the Natural and Social Science subject (Estudo do Meio). We use full CLIL.

2) **Which language objectives do you focus on during science/English?**

In the science lesson I focus more on content but sometimes I put into context a grammar content that will be useful to work a science content. In the English class I focus on the 4 skills: listening, speaking, writing and reading

3) **How do you integrate them to the into the lesson plans? What about delivery? How have the students been performing on these objectives?**

In the science lesson plan, there is key vocabulary and key structures that I want my students to learn in English related to a specific content. In the English class it is more vocabulary and grammar based.

In the NSS classes the key structures and key vocabulary are delivered through using different strategies: short films, mind maps, visual aids, group work, diagrams and reading and underlining key words or structures. But sometimes it is necessary to use the mother language to help students understand the content.

I think students have been improving because they use them while thinking about the content and how they are going to communicate about them.

4) **Can you give an example of language objectives being fulfilled by your student (s)?**

When students are able to bring together what they have learnt in the English class and use it in the science class to think and to communicate about what they have learnt as well as show their doubts. E.g. An evergreen tree has got leaves all year and a deciduous tree hasn't got leaves all year (for weaker students) or deciduous trees lose the leaves in autumn (stronger students).

5) **Can you give an example of when an objective wasn't met?**

This happens when students constantly mispronounce words E.g. islands – they continue to pronounce the first s; When they continue make mistakes with <u>is</u> and <u>are</u> or when they often use a Portuguese word which means in terms of content the word has still not been apprehended.

6) **How are you structuring your lessons so both languages are being used? Which strategies have you been employing?**

When I do my lesson plans, I don't think when and how I will use the mother language, it happens naturally in the classroom with me or the help of the class teacher.

I'm trying to use English as much as possible, but when necessary I and the class teacher use the mother language when we feel it's important to know the information in both languages.

<div align="center">

T1's Reflection 4: Bilingualism

</div>

1) **Have you ever had any formal instruction on theories of bilingualism? If so, what?**

No. I have only read about it as personal interest.

2) **Why do you think it is important that the children learn more than one language, or not?**

I think it's important because children will learn about another culture, they will be more aware of a language and this also helps them become more aware of their mother language. They also have better listening skills and in cognitive terms I think learning another language helps in critical thinking.

3) **For the children, what aspects of language learning do you find most difficult?**

I think it's using the language in communication activities because it differs from their mother language and they often find it difficult to structure what they want to say.

4) **What are some of the language and learning strategies that you, as a learner, use when trying to use both languages?**

- Translanguaging

- Grouping

- Using key words

- Diagrams

- Mind maps

5) **What about the children, what language and learning strategies have you seen them using while at school when trying to use both languages? Can you give me examples?**

- When words have a similar phonetic sound they are able to understand and use it in both languages.

- Sometimes they use the both languages to communicate an idea.

- Simplify structures

- Use synonyms

- Translation

- Translanguaging

T1's Reflection 5: Final Reflection

1) **How much CLIL training have you had? Since when? Have you taken classes, participated in workshops, or how have you become familiar with the approach?**

I haven't had any CLIL training and I was already familiar with the approach but have been reading and visiting sites related to CLIL to find new ideas for teaching approaches.

2) **Think about the pupils' development this past year. We talked about language(s) practices/strategies and development for you and the children. Giving examples, try to weave in your perspective on their language(s) development this past year, including the different interactions that were taking place during the use of their language(s) (e.g. with whom they were speaking, which language functions were being used – reading, writing, etc., context – the when/where, and for which purposes a specific language(s) was chosen).**

Until March most of the strategies I used were similar to the previous year but using new material and different project work. We were more focused on speaking and writing because the students had a new technology tool (IPads) and were encouraged to use these tools to make presentations and then share them with the class. In terms of speaking most these students made very good progress and, in the class, made great effort to use the English language. The weaker students continued to use both languages but often used their mother language as they were unable to have a full conversation or explain a process using the English language. Basically, very similar to what you had observed previously, students switch to their mother language when they interact with each other or in specific contexts that aren't related to the content.

3) **How about your personal development as a teacher? How do you feel that this study has helped you (or not) in understanding your pupils' language(s) development and the use of strategies (such as translanguaging but not limited to it) in the classroom?**

 As a teacher this study has made me more aware and conscious of the strategies I was using and possible new ones I could implement to boost further interaction in students. It also helped me focus more on the language development of my students and understanding why and how they communicate in different ways. It brought a lot of insight on what translanguaging actually is.

APPENDIX D

T2's Reflection 1: Teachers' background

1) **Where are you from**?

   Vila Nova de Gaia, Porto

2) **What is your education background and qualifications?** Licenciatura e Ensino Básico - 1.º Ciclo, Pós-Graduação em Supervisão Pedagógica e Mestrado em Educação Especial.

3) **What are your first and second language? Where and how did you learn them?**

   Português

4) **Do you speak any other language(s)?**

   Inglês.

5) **With whom and for which purposes do you use your different languages?**

   Para comunicar com pessoas de outros países aquando as férias; para comunicar com Encarregados de Educação; com os alunos nos momentos informais e de dinâmicas do dia-a-dia.

6) **When thinking of your students, do you purposefully choose one language over the other? For specific contexts and reasons? Why? How do you think this affects their language (s) development?**

   Sim. Existe uma aluna na turma cujos pais não são portugueses, e optp por comunicar com ela em Inglês. Com os restantes alunos, nos momentos informais do seu quotidiano, optp por recorrer ao Inglês. Durante as aulas, na preparação/arrumação do material, por exemplo, também uso a língua inglesa. Caso contrário, recorro ao português.

7) **Open ended – think about the last month in your 3ʳᵈ grade classroom and the languages practices happening there. What comes to your mind? How is**

bilingualism happening and what language strategies have you, the other teachers and the children used?

No último mês de aula, registo um aumento do uso do inglês por parte dos alunos. Têm mais curiosidade pela língua e tentam, com maior frequência, utilizar vocabulário que aprenderam nas aulas e estruturar frases de acordo com as regras gramaticais, apesar de ainda manifestarem dificuldades. O bilinguismo acontece diariamente nas diversas aulas, sendo que os professores e as auxiliares recorrem ao Inglês sempre que possível na organização, durante e na finalização das atividades. A escolha das atividades a serem realizadas também têm em conta o bilinguismo. Para isto recorremos bastante a gestos que associados às palavras possibilitam uma melhor compreensão do que se está a comunicar; a imagens e a canções. Estas estratégais resultam bastante bem porque ajudam na memorização e mobilização de vocabulário no dia-a-dia dos alunos. Sempre que os alunos comunicam em português, incentivamos o uso da língua inglesa, dando pistas para o vocabulário correto a utilizar e ajudando na construção frásica. Nestes momento, incentivamos o uso das duas línguas para que comecem a usar algum vocabulário que já aprenderam.

T2's Reflection 2: Children's language(s) background

1) **How well do you know your students' language(s) background? Is this knowledge primarily from the classroom context or do you talk to parents about their children's language practices?**

Julgo que conheço bem o background linguístico dos meus alunos. Este conhecimento deve-se à informação que foi transmitida pela educadora de Pré-Escolar antes do 1.º CEB, pelos pais na anamnese que é feita antes do ano letivo começar e através das

partilhas realizadas pelos próprios alunos de alterações que existem no seu quotidiano e/ou novas aprendizagens que vão fazendo. Tendo na sala de aula alunos de outras nacionalidades, esta partilha intensifica-se.

2) **Can you give me examples?**

Respondido na questão anterior.

3) **How do you assess your students' language(s) development?**

A progressão ao nível linguístico é realizada através de fichas de avaliação formais; fichas de trabalho; nível de interação (qualidade) oral realizada em sala de aula; formulários online.

4) **Can you give me an example of a student's language(s) development? In Portuguese or in English?**

Na sala de aula existem alunos com um baixo nível de vocabulário ativo. No caso da aluna estrangeira, esta questão compromete a compreensão dos textos escritos nas diversas áreas. Neste momento, e porque foram definidas estratégias específicas de aumento de vocabulário ativo a serem aplicadas em casa e no colégio (aulas e apoios), a aluna demonstra compreender o significado de expressões mais complexas e de informação implícita nos textos. Esta evolução também é visível porque a aluna recorre cada vez menos ao dicionário.

5) **How are the parents involved in their children's language(s) development?**

Os pais são sempre envolvidos nas tarefas e na evolução dos alunos. As estratégias são definidas em conjunto e há uma monitorização constante do trabalho realizado. Sempre que necessário, são realizados ajustes às estratégias.

6) **Think about the last month in your 3ʳᵈ grade classroom and the languages practices happening there. What comes to your mind? How is bilingualism happening and what language strategies have you, the other teachers and the children used?**

Primeiramente, salienta-se o aumento significativo do uso da língua inglesa no quotidiano escolar dos meus alunos. A turma, de um mode geral, interaje cada vez mais com recurso ao inglês, sendo que recorrem ao português quando não conhecem algum termos. Muitas das vezes, perguntam como se diz determinada palavra. O uso do inglês é cada vez mais notório na comunicação comigo, sendo que todos os alunos já arriscam mais na comunicação bilingue. Para além disso, em termos gramaticais, os alunos começam a articular os conteúdos da Gramática (português e inglês). Todos os professores incentivam o uso da língua inglesa, sendo que há uma preocupação da minha parte em recorrer cada vez mais à segunda língua na comunicação com os alunos.

T2's Reflection 3: Lesson planning

1) **What is the bilingual program used by the school? How do you adapt it to your own classroom?**

No colégio recorremos ao CLIL nas aulas de Estudo do Meio. Estas aulas são lecionadas em formato de coadjuvação entre a professora da disciplina e a professora titular de turma.

2) **Which language objectives do you focus on during science/English?**

Nas aulas de Estudo do Meio focamo-nos, maioritariamente, no conteúdo/vocabulário específico da disciplina. Não obstante, sempre que possível/necessário, articulamos com algum conteúdo da disciplina de Inglês, como gramática, por exemplo.

3) **How do you integrate them to the into the lesson plans? What about delivery? How have the students been performing on these objectives?**

As planificações de Estudo do Meio contemplam o vocabulário específico que é previsto que os alunos adquiram e mobilizem nos diversos contextos. Este é trabalhado com os alunos de formaas variadas: trabalhos de grupo; vídeos; mapas conceptuais; … Os alunos revelam-se bastante motivados e empenhados na procura, aquisição e mobilização quer do vocabulário, quer do conteúdo propriamente dito. Durante as aulas, é-lhes pedido que expliquem determinados conceitos, sendo que o esforço em mobilizar as aprendizagens efetuadas é notório. Quando não conseguem dizer algum vocábulo, alguns tentam explicar o que querem dizer, em inglês.

4) **Can you give an example of language objectives being fulfilled by your student (s)?**

A relação dos conteúdos gramaticais entre o Português e o Inglês (pronomes pessoais, por exemplo) e a diferença entre as duas línguas.

5) **Can you give an example of when an objective wasn't met?**

Penso que a maior dificuldade se relaciona com a correta pronunciação de algumas palavras.

6) **How are you structuring your lessons so both languages are being used? Which strategies have you been employing?**

A relação entre as duas línguas acontece naturalmente e de acordo com as necessidades dos alunos e o decorrer da aula.

T2's Reflection 4: Bilingualism

1) **Have you ever had any formal instruction on theories of bilingualism? If so, what?**

Não.

2) **Why do you think it is important that the children learn more than one language, or not?**

Considero a aprendizagem de outra língua importante uma vez que as crianças vão contactar com outra cultura e outra forma de comunicar. As crianças têm uma capacidade impressionante de aprender coisas novas e de as mobilizar de forma natural nos diversos contextos. Numa sociedade cada vez mais globalizante e em contacto, é primordial a aquisição de várias línguas que, mais tarde, serão, com certeza, necessárias tanto no seu percurso pessoal como professional.

3) **For the children, what aspects of language learning do you find most difficult?**

A estrutura da nova língua, uma vez que é diferente da sua língua maternal.

4) **What are some of the language and learning strategies that you, as a learner, use when trying to use both languages?**

Translinguagem, mapas mentais, palavras-chave, "intuição", tradução palavra a palavra.

5) **What about the children, what language and learning strategies have you seen them using while at school when trying to use both languages? Can you give me examples?**

Uso de palavras-chave; tradução letra a letra/ palavra a palavra; aproximação fonética; uso das duas línguas na mesma frase.

APPENDIX E

List of Scientific Works

PUBLICATIONS

Feller, N. P. (2020). *Language Use and Scaffolding Strategies: A Case Study of Translanguaging in a Primary Bilingual Classroom*. Manuscript submitted for publication.

Feller, N. P. & Vaughan, J. (2018). Language practices of Guarani children in a community-based bilingual school. In Wigglesworth, G., Simpson, J. & Vaughan, J. (Eds.), *From Home to School: Language Practices of Indigenous and Minority Children*. London: Palgrave MacMillan.

PRESENTATIONS

Feller, N. P. (2019). *Approaches to Translanguaging in Bilingual Classrooms*. Recles Conference, Faro, Portugal.

Feller, N. P. (2019). *Approaches to Translanguaging in Bilingual Settings*. JRAAS Seminars – Chapter XIV, Porto, Portugal.

Feller, N. P. (2019). *Bilingual Education, Translanguaging Practices and Teacher Preparation: Approaches from the Brazilian, American and Portuguese Contexts*. Working CLIL Seminar, Porto, Portugal.