
*Estudios de
lingüística inglesa aplicada*



**IMPLEMENTATION OF BILINGUAL PROGRAMS IN PRIMARY
EDUCATION: TEACHING AND EVALUATION STRATEGIES**

**IMPLEMENTACIÓN DE LOS PROGRAMAS BILINGÜES EN
EDUCACIÓN PRIMARIA: ESTRATEGIAS DE ENSEÑANZA Y
EVALUACIÓN**

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This article aims to provide a reflective analysis about the implementation of bilingual programs in the classroom. A qualitative research methodology, eminently descriptive, and open-ended interviews as a tool for collecting information have been used. The formulation of open-ended questions, with a medium-low structural level, allowed us to know the ideas, beliefs and opinions of the interviewees about the teaching strategies and forms of assessment used in the Primary Education classrooms. This interview was

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carried out with 78 teachers, from both public and private schools, attending a stratified sampling that allowed us to reach 21% of the centres that had developed bilingual programs in the Community of Murcia when the research took place. The information obtained was classified in different categories and, from this categorization the analysis was carried out by the program of qualitative data analysis MAXQDA version 10. The main results show that the implementation of bilingual education involves a change in the methodologies used by teachers in the classroom and also a more active and participative role by the students.

Key words: *bilingualism, education, methodology, teachers, Primary Education*

Este artículo tiene el propósito de proporcionar un análisis reflexivo acerca de la implementación de los programas bilingües en las aulas de Educación Primaria. Se ha empleado una metodología de investigación de corte cualitativo, eminentemente descriptiva, y entrevistas abiertas como herramienta de recogida de información. La formulación de preguntas de carácter abierto, con un nivel de directividad medio-bajo, ha permitido conocer las ideas, creencias y opiniones de los entrevistados sobre las estrategias de enseñanza y formas de evaluación empleadas en las aulas de Educación Primaria. Esta entrevista fue realizada a 78 docentes, distribuidos en colegios públicos y privados, atendiendo a un muestreo estratificado que ha permitido llegar al 21% del total de centros que desarrollaban programas bilingües en la Comunidad de Murcia en el momento de la investigación. La información obtenida se agrupó en torno a categorías y, a partir de esa categorización, se procedió al análisis mediante el Programa de análisis cualitativo de datos MAXQDA versión 10. Los principales resultados manifiestan que la implementación de la enseñanza bilingüe conlleva un cambio en las metodologías empleadas por los docentes en las aulas y un rol más activo y participativo por parte del alumnado.

Palabras clave: *bilingüismo, enseñanza, metodología, profesorado, Educación Primaria*

1. Introduction

Human activity steers today's society towards a context of globalization, of rapprochement between countries and peoples. In the light of this, knowing

a second language allows to open borders. Thus, it is considered that being bilingual helps meet the demands of an open society. For this reason, bilingual programs based on the approach known as Content and Language Integrated Learning, CLIL (Aprendizaje Integrado de Contenidos y Lenguas-AICLE- in Spanish) have become widespread in Europe and Spain from the nineties to this day.

The goal of the present work is to analyze CLIL implementation in bilingual program classrooms in the Region of Murcia, by assessing the teachers taking part in its development. For this, the theoretical foundation of the bilingual programs in relation to the subject matter will be described. Subsequently, the research methodology employed will be presented in terms of design, instrument, procedure, participants and data analysis. After this, results will be displayed and, finally, conclusions on the reality faced by the teaching staff in the classroom will be drawn.

2. Theoretical Foundations

It is difficult to separate, both in theory and in practice, the methodology behind bilingual teaching from the techniques or general abilities that every teacher uses to encourage learning, so that, in order to guarantee the success and quality in the implementation of these programs, teachers must question and reflect on their approaches and working methods in the classroom. “If they are not involved in reflective practice, then their new experiences run the risk of simply turning into new formulae which in a short space of time become routine, unquestioned practice” (De Matos, 2014, p.5). It is obvious that teaching a subject in a foreign language is different from teaching it in the teacher’s native tongue therefore the teacher’s task must be that of paving the way for the achievement of the competence in the subject matter, enabling at the same time the incidental learning of the second language (Novotná & Hofmannová, 2005).

Learning a discipline includes deeply understanding the specific language inherent to said discipline. However, the difficulties in the implementation of Content and Language Integrated Learning (CLIL) entails having to focus attention on all those aspects, educational practices and the success thereof. Content teaching by means of a second language involves the combination of strategies and techniques both within the area

of a given foreign language as well as the areas and subjects taught in that language. “CLIL teachers, who teach a content subject through the medium of a foreign language, need to be able to use the specific methods and techniques of two subjects and what is more, to combine them in such a way that the result will be more than the sum of its parts” (Massler, Ioannou-Georgiou & Steiert, 2011, p.67).

In this regard, strategies such as deliberately narrowing down vocabulary and expressions, being repetitive in the use of words and instruction routines, presenting the idea in two or more different manners, turning to diverse communication strategies like repetition, gestures, body language, analogies, visual support and real objects are considered essential (Baker, 2006). Complementing the teacher’s explanations with these resources makes it easier for students to understand the explanations and enables a greater success in the learning of academic contents. Hansen-Pauly, Bentner, Jovanovic, Zerbato, Llinares, Dafouz, Alonso, Comino, Nadal, Favilli, Dale, Hofmannova, and Novotna, (cited in Lehtse, 2012, p.16) state that “optimum learning conditions are created when verbal input is accompanied by non-verbal input, including visual (e.g. images, models), kinaesthetic (e.g. gestures, miming), or tactile (e.g. handling of models) style”. The combination of verbal and non-verbal language, crucial in these contexts, implies that CLIL is associated with a multimodal approach. “Graphic organizers, textual support through glossaries, highlighted key words/expressions and technology, which may not have been necessary when giving lessons in the mother tongue” (Pavón & Ellison, 2013, p.74)

The teacher’s duty must enable every student to develop their own individual process of construction of contents and meanings, minimizing potential barriers that could have a negative impact on it, and using a variety of strategies to help overcome the difficulties individually and making learning effective (Novotná & Hofmannová, 2005). Hence, teachers must step out of their comfort zone and change the methods and strategies employed to teach contents in a second language, even though this may not be an easy task. “The ‘new’ role of teachers entails a complete change in the pedagogical strategies used in the classroom which is sometimes difficult to achieve” (Pavón & Ellison, 2013, p.72). It all comes down, essentially, to creating a simulated, comfortable and safe environment, where students are able to feel free to express themselves

without any anxiety (Infante, Benvenuto&Lastrucci, 2009; Mackenzie, 2008). Under this perspective, it is considered greatly helpful to develop a process of evaluation of the students' previous knowledge before introducing new contents, so that the new knowledge is accommodated to that already possessed by the student, which provides them with schemes or reference frameworks to be able to take in the new material (Snow, Met & Genesee, 1987).

Undoubtedly, being able to think in two different languages enhances the understanding of certain concepts and helps the students develop their own concept maps of resources (Marsh, 2000). For this, it is useful to present the information to students in diverse ways, alternative to oral presentations, such as visual elements, images, concept maps and other different resources that ICT's provide. In the same line, it is necessary to provide resources or auxiliary tools, *scaffolding*, all of which simplify a task (Baker, 2006) and select the right material, which implies a previous analysis of those to adjust to the educational reality of the classroom. In short, it is about managing efficiently the classroom so as to create the right environment to enable understanding.

This planning work is more complex than in traditional teaching approaches: it emphasizes social interaction, an efficient team work which enables the identification of potential linguistic difficulties that may result from the interaction between languages and contents, and also establishes common work strategies in the different subjects taught throughout the academic year, by scheduling the sequence of contents and the learning of languages in a consensual manner. The cooperation between students turns out very beneficial and it becomes necessary when students present different levels of linguistic competence; by promoting interaction between students, these learn from each other, confronting their own viewpoints and giving rise to linguistic and socio-cognitive conflicts which they have to learn to solve in natural ways (Suárez, 2005).

To summarize, active methodologies, cooperative classroom management, emphasis on all types of communication, planning, coordination, evaluation and knowledge about language acquisition are the bases on which the bilingual classroom methodology is grounded.

3. Methodology

3.1. Design

The research methodology employed was one of a qualitative type. It derives from the own nature of qualitative research, which studies reality in its natural context, as it naturally happens, and tries to interpret phenomena, drawing from the meanings these have for the people involved. This can be specifically labeled as phenomenological qualitative research, as it “deals with determining the sense given to the phenomena, finding out the meaning and the form by which people describe their experience about a specific event”(Sabariego, Dorio & Massot 2004, p. 317).

In this sense, it is an eminently descriptive study, whose main objective is to analyze methodological strategies for teaching and assessment so as to foster the understanding and acquisition of the contents taught in a second language in Bilingual Primary schools in the Region of Murcia.

3.2. Instrument

As regards the data collection instrument, an open interview, or in-depth interview, with a middle-low level of directivity (i.e.: certain questions of an open nature are posed, so that participants can express freely their ideas, beliefs, opinions and assessment) was chosen (Tójar, 2006). The interview has been considered the most appropriate tool so as to compile this type of information by means of asking relevant questions to teachers about the subject matter, since interviews offer the interviewee the possibility of discussing the appropriateness, or lack thereof, of a question, the possibility of correcting it, clarifying it or responding to it in a way that they consider adequate (Agar, cited in Rodríguez, Gil and García, 1996), making them active participants of the interview and, thus, indispensable collaborators in the research.

Once the interview's script has been outlined, it is necessary to point out that it was validated by means of expert judgment. Assessment through expert judgment “consists essentially of requesting a group of

people for their judgment towards an object, an instrument, a teaching material or their opinion on a specific aspect” (Cabrero and Llorente, 2013, p. 14). In this case, three experts were singled out: two from the area of General Didactics and one from the area of English as a second language, all of them highly knowledgeable about Bilingual Programs in Primary Education. The contributions and suggestions of experts were included in the definitive interview, with the aim of ensuring the validity and reliability of the data collection instrument, which was made up of 62 questions and organized along two broad categories: one, whose objective was to define the participants’ profile, and a second, which was structured in 6 thematic blocks: teacher training, coordination, teaching in the bilingual program, overview of the results obtained and parents. In this work, we are going through the results obtained in the bilingual program.

The interviews were of an individual and oral kind, with the aim of collecting all the information provided by the participants and, subsequently, proceeding to its transcription. Likewise, it should be mentioned that the interviews were carried out in the classrooms where teachers imparted knowledge or, in case these were not available at that moment, in the multiuse rooms of the centers.

3.3. Data collection procedure

The data collection procedure involved the following stages: a) selection of participating centers by means of stratified sampling; b) making contact with the center to inform and invite them to take part in the research; c) informing the teaching staff about the purpose of the interview and the data protection; d) agreeing on interview dates (during the months of February and March, 2014); e) the interviews being directly carried out by the researcher.

In order to perform these interviews, a guiding outline was employed, albeit adapted to the pace and responses of participants, discarding in each case those questions deemed inappropriate and incorporating in a flexible manner those which were necessary to bring back the focus of the interview to its original purpose. Interviews were recorded and transcribed for further analysis.

All the raw material of the interviews and their content are stored in the University of Murcia’s Department of Didactics. In compliance with

the University's confidentiality protocol, the interviewee's privacy is guaranteed by eliminating contextual references and replacing them by target square brackets.

3.4. Participants

The population considered for this research would include all the teachers in the Bilingual Programs of Primary Education centers in the Autonomous Community of Murcia (Spain).

The selection of participants was carried out following stratified sampling, applying specific inclusion criteria such as: region where the educational center is located and its ownership. This way, the territory was divided into regions (according to the criterion applied in the Global Atlas of the Region of Murcia, 2007) within the Region of Murcia and, in order to obtain the highest quality information, the decision of selecting 24 public centers and 6 private ones, distributed as shown in Table 1, was made.

Region	Public Centers			Private Centers		
	Total	Participants	%	Total	Participants	%
Area Metropolitana de Murcia	53	11	21	22	5	23
CampodeCartagena-MarMenor	19	4	21	8	1	13
BajoGuadalentín	7	2	21	1	0	0
Noroeste	9	2	22	0	0	0
Vega del Segura	10	2	20	1	0	0
Altiplano de Jumilla	4	1	25	0	0	0
Comarcade Lorca	4	1	25	1	0	0
Cuenca de Mula	2	1	20	1	0	0
Total	108	24		34	6	

Table 1. Number of Centers Chosen in each Region

For the criteria of center ownership and number of years spent on the bilingual program: in relation to the ownership, both public centers and semi-private schools were catered for. Regarding the number of years the educational centers had taken part in the bilingual program there is plenty of variety, as it can be seen in table 2, from the first promotion in 2009/2010, to the last one participating in our study, 2012/2013.

Years spent in the Bilingual Program	Public Centers		Private Centers	
	Frequency	%	Frequency	%
FiveYears	10	38	1	17
FourYears	7	29	0	0
ThreeYears	6	25	3	50
TwoYears	2	8	2	33
Total	24	100	6	100

Table 2. Years spent by Centers in the Bilingual Program

With all these criteria, a total of 30 centers, 24 of which of public ownership and 6 semi-private schools were part of the sample. This represents a 21% of the educational centers which were implementing the bilingual program at the time of the research. This also meant 78 teachers took part in the research.

3.5. Data Analysis

Once the information was transferred, a qualitative analysis- stemming from a thematic criterion followed. It is necessary to point out that the criterion used in the process of categorization is a deductive one, as it stems from the theoretical framework and considers the interview outline as a source of construction of categories used to simplify the information obtained (Mejia, 2011). Thus, the dimensions laid out in the interview outline have been the point of departure and, within each of these dimensions, different subject matters have been identified and grouped into categories. Said categories can be regarded as a map of meanings which accurately reflect the content structure of the interviews and which allows us to interpret the different

evaluations made by teachers in relation to the research problem. On the basis of this categorization an analysis was carried out by means of the Qualitative Data Analysis program MAXQDA version 10.

4. Results

At this juncture, teachers' thoughts on the implementation of bilingual programs in the classroom are presented grouping their answers in the subsequent categories: methodological strategies employed, ways of ensuring the reinforcement of contents taught in English, timing and use of Spanish in the classroom and differences when carrying out learning assessment. In this sense, the results obtained in each of the categories analyzed are shown. The most significant contributions made by the interviewees are marked with the code "E", followed by the number which corresponds to the register assigned in the analysis.

4.1. Methodological Strategies employed in Bilingual Education

As it can be observed in table 3, the majority of the teachers interviewed (88%) with virtually no differences between types of centers, states that their affiliation with bilingual education has implied a change in strategies employed in order to foster understanding and comprehension of academic contents.

Methodological Change	Public Centers		Private Centers		Total	
	Frequency	%	Frequency	%	Frequency	%
No	6	10	3	18	9	12
Yes	55	90	14	82	69	88
Total	61	100	17	100	78	100

Table 3. Methodological Change

These teachers remark that their affiliation with the bilingual program has fostered a methodological change, since they teach academic

contents in more playful, experimental, experiential and visual ways. Students are given a more active and participative role as a consequence of learning-by-discovery, which means they have to discover their environment on their own, by observing and manipulating objects.

Likewise, these teachers believe that this methodological change yields benefits for students, as learning is more effective this way¹:

Now, it (subject) is more experimental and visual than before. Science is better learned since it is more tangible when taught in English than in Spanish, as in Spanish they may open the book on a given page, look at a picture in it... but now you are teaching the difference between coarse and smooth and you have to pick a scouring pad and satin ribbon for them to try themselves and understand. It is a totally different world (E46).

I think it has indeed promoted a methodological change. Before, when teaching in Spanish, teachers would not go through the lesson of moon and sun turning lights off, as in the book there was a picture and children just observed it, or because they assumed pupils would understand the contents without performing the previously mentioned activity. However, now when teaching the contents in English it is necessary to carry out said task (i.e.: turning lights off) so as to foster understanding of the contents, which makes all teaching more manipulative and visual (E8).

In addition, three educators belonging to private centers declare that this methodological change has led to students' becoming more aware of their learning, knowing at every moment what they are doing and the reason why. This implies that bilingual education teachers are not only concerned with the academic contents to be taught to students, but how to get those through to them. Hence, the importance of seeking for the best techniques which make this task easier.

Now, it is all about making children's learning more tangible and manipulative and making sure they know in every moment what they are doing in the past there was not enough importance given to this. For this reason, children learn in a more natural, spontaneous and constructive way than before (E24).

More specifically, as it is shown in table 4, they point at the implementation of the following techniques in the teaching practice:

Changes implemented	Public Centers		Private Centers		Total	
	Frequency	%	Frequency	%	Frequency	%
More visual resources	17	31	9	64	26	38
Use of ICT's	17	31	4	29	21	30
Use of experiments	9	16			9	13
Use of non-verbal language	7	13			7	10
Use of materials and objects	5	9	1	7	6	8
Total	55	100	14	100	69	100

Table 4. Changes introduced in their teaching practice

69% of teachers interviewed declare they use visual resources to favor understanding and acquisition of the academic contents of the areas taught in English.

They are different because when you are explaining and you use the language itself, the pupils' understanding is phenomenal, but when you start to implement the program you need some visual support for them to understand the contents. And you realize you can also use that support in other areas, in Spanish. This way, now what is learned in the bilingual program carries over to other types of learning(E10)

I use a great deal of explicative videos from the Internet, for instance about prehistory, different experiments and I rely heavily on *Art* so kids understand concepts better. They are, indeed, different, as passing knowledge in English is not the same as doing it in their mother tongue(E34)

Similarly, these teachers concede that the resources used in the bilingual program differ from those employed before (90% of public centers and 82% of semi-private schools); they consider the digital blackboard an indispensable tool in bilingual education, since it enhances the understanding of knowledge in students.

Especially the digital blackboard, plenty of videos from YouTube, for example about animals which create their own light- the firefly-, because visual stimuli are much more eye-catching and the experiments which are an essential component of *Science* (E41)

I use all ways of communication possible: gestures, the digital blackboard- which I use aplenty-, as it indispensable, since when pupils do not understand something by simply showing them an image, that one helps them understand that concept or term. I also work frequently with manipulative activities, since they foster pupils' comprehension of concepts as they use their hands to carry them out(E2)

The most frequent techniques to foster the understanding and acquisition of academic contents in the areas taught in English are the following: flashcards, songs, non-verbal language (gestures and movements), experiments and other experiential activities...

In order to promote understanding of the explanations in English, I use plenty of visual support (pictures, flashcards...), a great deal of gestures and repetition with other words (paraphrasing) (E15).

Lots of gestures, mime, visuals, images, I bring along real objects to the classroom, so children can see them (E23).

Other techniques employed, albeit to a lesser extent, by these teachers are: real objects, repetition or paraphrasing- that is, the use of different words or terms in order to express the same meaning-, different tones of voice, and both the use of English and Spanish.

But not all teachers have a favorable opinion; 10% of the teachers interviewed believe there is no such thing as a methodological change, as the methodology employed in the bilingual program is identical to the one used before or that any methodological change has not been the result of the implementation of bilingual education.

I do not think so, as the methodology is the same as the one we learned in our Teaching degree, which is very appropriate (E14)

We are immersed in an important process of methodological restructuring linked with cooperative work, with rethinking routines and strategies; it is a general methodological shift; it is not due to the implementation of the bilingual program (E29).

4.2. Reinforcement of contents taught in English

All of the teachers interviewed state, besides, that coordination with Spanish language and literature teachers is fundamental in bilingual education, with the aim of reinforcing the contents of Science in the pupils' mother tongue.

The first time I went to a bilingual school, they told me- and I still remember it to this day: first and foremost, it is crucial that the Spanish language does not end up being neglected. Both languages need to be taken care of” That has always been my premise, for this, it is fundamental that the bilingual project is indeed a Center Project, for which the coordination with those teaching Spanish language and literature is essential (E19).

However, a complaint made by 30% of public school teachers in our sample stressed the necessity to increase coordination with the teachers who teach Spanish Language and Literature. The majority of them state that said coordination does not take place due to existing disagreements.

I believe that the optimal thing is that the Spanish language teacher should use the vocabulary I am teaching in English in some task or dictation, so children can get to know those terms both in English and Spanish. But I told the head of the Spanish language department about it and he has not done anything yet (E5).

There is a problem. I would love that Spanish language teachers would use the contents of Science through reading and dictations. But there are teachers who are favorable to the program and collaborate and others who don't (E10).

In this sense, significant differences have been found according to center ownership: while 82% of teachers in private centers complement the area of Science with Spanish language and literature, in public centers, 61% of them declare not doing so.

Notwithstanding, it can be observed how, for the most part, Scienceteacherswork in coordination with the teachers who teach the area of Spanish Language and Literature, so the contents and vocabulary related to Science are tackled by means of readings, dictations or summaries:

My colleague, homeroom teacher and teacher of Spanish, and I have decided that she will be the one handling the tasks in Spanish, such as dictations in which she will employ those terms from *Science* whose understanding may be difficult for the pupils and whose meaning she may not be acquainted with (E3).

It means working by means of dictations or comprehensive reading with contents that have been previously seen in *Science*, in the time allotted for Spanish language. So, without directly translating, it is about their understanding that such specific vocabulary exists, as sometimes it is too abstract (E21).

With homeroom teachers of Primary education, there is plenty of coordination; we have come up with documents in Spanish for them to work with the contents from *Science* in the Spanish language subject. For instance, instead of telling them X tale, they tell them one about plants and then, they discuss plants or, instead of only one dictation about spelling, there is one about spelling and living beings, you know: living organisms are born, grow, reproduce... they show them a video and speak about that (E19).

Similarly, and also in relation to carrying out tasks in the area of Spanish language and literature which reinforce the contents of Science, some differences can be found. Only 17% of teachers in public schools declare that they arrange themselves the tasks to be handled by teachers of Spanish Language and Literature:

It is ideal to work in coordination with the L1 colleague and provide them with a deep understanding of these issues. This way, you are leaving them the job half done; they only have to spend 10 or 15 minutes to read the text and answer (E31).

However, the rest of teachers (with the exception of homeroom teachers) rely on the teachers of Spanish Language and Literature for the preparation of those tasks:

I coordinate with my Spanish language colleague for her to do a summary with the most relevant vocabulary of the Science unit, in order to make up for the alleged deficiencies in Spanish vocabulary, as it is believed by parents and professionals (E35).

There is plenty of coordination with the Spanish language teacher, who has to do a dictation or look for a reading in order to employ the vocabulary we have been working on in *Science* (E43).

On the other hand, 17% of teachers affirm that a reinforcement of the main contents in *Science* is carried out in the Spanish language class: this reinforcement is not provided by the teachers who teach *Science* in English, but by teachers who are teaching different subjects in Spanish. The latter declare they carry out activities in Spanish when the didactic unit of *Science* is completed, in order to reinforce those contents taught in English.

In relation to the teachers who declared not doing any complementary activities between the areas of *Science* in English and Spanish Language and Literature (17% in public centers and 18% in semi-private schools), they state they provide the families with information in Spanish about the contents of *Science*, so the children can get to know about those contents and terms in their mother tongue, through one of the following ways:

- Sending the parents a letter, informing them about the main contents which are going to be covered in each Didactic Unit, with the purpose of having them talk with their children in Spanish about those and reinforcing that knowledge in the mother tongue:

We give the parents instructions in Spanish, as they may not speak English at all. At the beginning of each Didactic Unit, a letter is sent to them, explaining the contents which are going to be included, so they can reinforce those in Spanish. This is the ideal scheme: those contents are tackled at home with parents in Spanish and they are also told about the song belonging to the Didactic Unit which will be worked on in class (E12).

- Providing pupils, mainly at the beginning of each Didactic Unit, a list of the vocabulary both in English and Spanish. They can use the dictionaries and glossary section of textbooks to work with those terms in the two languages.

From the third year on, we introduced a measure, at school level, which we consulted with the teaching inspector- who considered it appropriate-, that consisted in providing the pupils with the vocabulary in English and in Spanish. I work with the Didactic Unit in English and just one day before the exam, I give them the vocabulary list provided in English and Spanish, and I revise it and go through all the words, which they know in English and know their meaning both in English and Spanish, as I feared they would not know those words in Spanish (E4).

- Do summaries or translations of the Didactic Units of Science in Spanish with the purpose of getting children to work with their families on those contents.

Us, teachers of English are carrying out a monumental amount of work, an impressive, considerable burden, as we translate all the units of *Science* into Spanish, from the first to the fifth year of Primary Education, and give them to the parents, so there are no deficiencies in their mother tongue (E61).

- Offering web links in Spanish on the contents of *Science*, for children to work at home with those contents:

I put links in Spanish on the School Blog about the topics taught so as to reinforce those contents in the children's mother tongue (E13).

Finally, 2% of teachers in public educational centers do not implement any measure to reinforce the contents of Science in the mother tongue. They simply rely on translation or use the mother tongue in those sessions:

Since we are translating all the time, the contents are not supplemented in any special manner. Logically, if you do not translate the concepts, pupils won't comprehend them in their mother tongue. The first work children have to do is the translation of those to Spanish. Let us not forget that their mother tongue is Spanish and everything they study, they have to understand, and for this, it needs to be translated. This way 100% of what is seen in class is translated with my help, but it is the pupils who translate orally all the contents to Spanish (E17).

In *Science*, I consider that scientific concepts should be shown in both languages. I believe children should learn them in the two languages, as it does not make any sense if they only know the words for muscles or bones in the human body in English, while being incapable of naming them in their own language. I think this is basic. I am not in favor of everything being taught in English, radically, otherwise it would be linguistic immersion and not bilingual education (two languages). I am a teacher with good command of both languages and I use both so concepts do not get lost. I have handled things this way for four years and the results have been reasonably good (E30).

4.3. Use of the Spanish Language (L1)

The majority of the teachers declare they use the English language 90% of the time or more and only rely on the mother tongue for 10% or less of the remaining time in the classroom.

Reasons for use of L1	Public Centers		Private Centers		Total	
	Frequency	%	Frequency	%	Frequency	%
Ensure understanding	27	49	8	67	35	52
Order and Discipline	18	33	4	33	22	33
Conflict Solving	10	18			10	15
Tutoring	7	13			7	10
Conveying Affection	4	7			4	6
Students with special needs	4	7			4	6
Total	55	100	12	100	67	100

Table 5. Reasons for the use of L1 (Mother Language)

As it can be observed in table 5, there are various reasons why teachers declare relying on L1, namely:

- 49% of teachers of public centers and 67% of semi-private/private centers state they use it to give some difficult explanations and ensure the understanding of more complex concepts, as on some occasions children have not even acquired those contents in their mother language.

In Science, when concepts are too abstract (*volume, density, etc...*) and children get lost, I have a break, say "... in Spanish", give some example to facilitate their understanding, and then switch back to English again (E4)

- 66% of teachers, with no differences between public and semi-private schools declare they use the mother tongue to ensure order and discipline in the classroom.

Very occasionally, when I have repeated “*be quiet!*” one thousand times and yet they won’t shut up, then I switch to Spanish, because it’s not the same (E33).

I turn to Spanish because when I need to tell someone off, it comes up naturally, I can’t help it (E71)

- 18% of public school teachers say they rely on Spanish when solving conflicts or conduct problems between the pupils.

I resort to Spanish when there are conflicts between students or any other problem in class and I have to handle it myself. I am not going to wait for the homeroom teacher to come and handle it (E60).

- 13% of teachers in public schools affirm they use Spanish on some occasions to provide pupils with some guidance or explanation about the development of certain complementary activities with the purpose of making sure that families are going to receive the information adequately.

I use Spanish in relation to guidance about other aspects. For example, during the Children’s Book Week I hand out some informative sheets to children for their parents, referred to purchasing a book and I explain that in Spanish, or, for instance, when a colleague couldn’t come to class and I took over and I told the children I would teach them Spanish language on that day (E44)

- Less frequently, we find answers by public school teachers where they state they use the mother language on some occasions, when they need to convey affection to pupils.

I only use Spanish when we have a bigger problem, such as when a child is ill, does not want to reply and I perceive they are not feeling well and are overwhelmed (E3).

- And with children of late entry to the bilingual program or those with special educational needs, with the aim of having them understand some academic contents:

I use Spanish with a child who has just entered the class and is weak at English; then, in order to help that child who won’t pick up the

language, I switch to Spanish. That way, saying some things in Spanish, they progress and use English as well (E33).

4.4. Learning Assessment

Nearly all teachers of the sample (92%), state that assessment in bilingual education is not different from the assessment carried out before its implementation, as the evaluation tools are the same:

Direct observation everyday work, oral production, participation and written tests. I believe they are the same (E23).

However, 60% declare that they place greater value on the pupils' oral communication skills than on written skills. These teachers consider that written assessment/testing has lost its prevalence, giving way to oral assessment, contributing to the bilingual program's assessing different linguistic skills:

Before, oral expression wasn't given as much importance; it was the English class, period, and you'd leave soon. However, now all skills are practiced; children get up and present their projects and we film that. It's amazing (E61).

A minority of 8% state that, in order to assess the knowledge acquired by the pupils, they have included the projects in the area of *Science* or an oral evaluation in the area of *Art Education*.

And only 4% of these educators declare that the implementation of the bilingual program has implied an increase in the number of instruments employed to assess the pupils' learning.

The evaluation tools have changed. It used to be just the exam, and now there are many instruments that, allow you to predict the result that the child is going to obtain (E27).

5. Discussion and Conclusions

The use of diverse teaching strategies by bilingual education teachers to foster understanding and acquisition of academic contents is laid bare in

different previous studies, such as Méndez & Pavón (2012) and Pladevall-Ballester (2015). In this line, the main strategies used by the educators in our sample —gestures, mime, visual resources, use of ICTs, giving synonyms...— are identical to the ones mentioned in other studies, such as Baker (2006), Lozano-Martínez (2017), Méndez & Pavón (2012), Pavón & Ellison (2013) and Pladevall-Ballester (2015). These results corroborate the ones provided by Kuoppala (2010) and Pistorio (2009), about the need for repetition or paraphrasing that is, using different words or terms to express the same content or meaning, in bilingual education. However, these teachers do not perceive repetition as a different strategy from the ones employed before their entering the bilingual program, thus disagreeing with the conclusions obtained by Coonan (2007), in her research of 33 teachers divided into 13 schools.

The use of visual resources is one of the main strategies employed by teachers in order to promote understanding and acquisition of academic contents, as confirmed by Méndez & Pavón (2012). The teachers interviewed also highlight the importance of the use of real objects as a strategy which fosters the understanding of knowledge in bilingual education, a result which matches the research of Infante, Benvenuto & Lastrucci (2009).

The teachers interviewed in the Region of Murcia state that technological devices and more specifically, digital blackboards, are an indispensable tool in bilingual education, as it facilitates the understanding of knowledge to children, a result also found in De Matos (2014).

The results of the present study are also in line with the ones offered by Baker (2006) about the relevance given to the pupils' experimentation and active participation in this type of learning. These teachers do perceive the use of experiments which allow children to manipulate, observe and touch materials as a strategy largely inherent to the implementation of the bilingual program, as they state that those weren't used as frequently when teaching in the mother language. In short, these educators have implemented a change in the use of pedagogic strategies, to promote understanding and acquisition of contents, which requires a new teaching profile, involved in bilingual education; this new paradigm is in line with the conclusions reached by Pavón & Ellison (2013)

Teachers perceive that the affiliation with the bilingual program has entailed a change in their teaching methodology, from a more traditional methodology to a more active and participative one. This is reflected in the increasing implication of children, making them feel indispensable participants of the teaching-learning processes; that is, the methodology shifts, being more focused on the pupil, a result which matches the research by Halbach (2015). Teachers observe that classes are becoming more participative, experimental and active as now the understanding of concepts by children involves hand-on activities. In these classes, as Pavón (2014) affirms, children do not only learn contents, but learn to understand those. This change of mind set, related to the necessary teaching methodology in bilingual programs, becomes a reality in this study.

The almost exclusive use of the English language by teachers in teaching contents through a foreign language exemplifies the fundamental role that these teachers give to English, as stated by Brüning & Purrmann (2014) and, in turn, the conception these teachers have of the mother tongue as one which should be used only marginally in class, as Brown (2001) corroborates. The situations or contexts in which these teachers use L1 (mother language) match those listed by Suarez (2005), as teachers turn to Spanish when dealing with personal circumstances or behavioral problems. Similarly, and following Nussbaum (2009), these teachers use Spanish to reestablish order and discipline in the classroom. They also confirm what Méndez & Pavón (2012) and Frigols & Marsh (2014) express, about the use of the mother language to reinforce and guarantee the understanding of the most complex academic contents, as well as handling the corresponding explanations.

It is important to mention that the teachers' almost exclusive use of the English language in the sessions taught in L2 denotes that these teachers may not be aware of the benefits of combining two languages in bilingual education, contradicting what other teachers declared in Méndez & Pavón (2012). Even though authors like Massler (2011) and Bovellan (2014) are in favor of the use of the mother language to teach vocabulary in the main areas of bilingual education, these teachers do not handle those terms in Spanish, in the sessions taught in English. Nevertheless, these teachers- with the aim of ensuring the learning of academic contents in the two languages- offer alternative learning materials in the mother tongue, including glossaries, as they are aware of their usefulness and necessity, as Bovellan (2014) affirms.

In relation to evaluation, these teachers employ different instruments to assess the pupils' learning in the areas taught in English, echoing Pavón& Ellison (2013). And, while they mainly admit they have not introduced any new elements in the evaluation tools, they acknowledge a greater relevance given to oral communication.

In conclusion, the teachers interviewed in the present study consider that affiliation with bilingual education implies a change in the methodologies employed by teachers so as to foster the understanding and acquisition of academic contents in a foreign language; they opt for more playful, experimental, manipulative and visual strategies and a more active and participative role of the pupils, which, according to the teachers' answers, entails important benefits for their learning.

6. Limitations of the Study

Among the limitations of the present study it is necessary to mention that, while the research carried out meets the authors' objectives, we consider it necessary to triangulate the data of all members of the academic community in order to contrast the evaluations. In this sense, research on pupil's opinions is a priority task.

Notes

¹ Autor's note: the following are the original responses given by teachers, which have been translated into English

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Appendix 1

Outline of the interview done to teachers affiliated with the Bilingual Program of the Region of Murcia.

Good morning/ evening.

In the Faculty of Education, within the Department of Didactics and School Management, I am doing a doctoral thesis about “*Bilingual Projects in the educational centers of the Region of Murcia: teachers’ overview*”. It is crucial to assess the opinion of the teachers affiliated to said program. Your opinion is important to us and for this reason, we are asking you for your cooperation in this interview we are about to carry out. Next, I will ask you some questions we have deemed important. We guarantee the confidentiality of your answers, in compliance with the current legislation, and can assure that the information processing will be one of an overall nature, therefore, inviting you to answer with complete freedom.

CLASSIFICATION QUESTIONS/ IDENTIFICATION DATA

In this first part of the interview, we are going to focus on personal questions in order to classify your profile.

1. Which region/area does your center belong to? Is it a public or a private/partially- To funded one?
2. How long has your school participated in the bilingual program?

BLOCK 4

Next, I will ask you some questions as a reference guide about teaching and the bilingual program.

55. Which strategies or techniques do you use in order to foster the understanding of terms or explanations in English? (Mime, pictograms, pictures, videos, repetition, linking with new ones...) Are these techniques different to the ones employed before your involvement with the program?

56. Do you think that the affiliation with the Bilingual Program has promoted a methodological change in teaching or not? Why? In the affirmative, does that methodological change benefit the student body?
57. Which teachers are you coordinated with (NLA / EFL teachers, homeroom teachers, Spanish language teachers, another cycle, BP...)
58. Do you consider that the work in coordination with the previously detailed teachers is very useful, useful or do you believe that it would be more efficient to coordinate individually? Why?
59. How do NLA and the areas taught in Spanish complement and integrate?
60. Do you use the Spanish language in some classes? In which situations or contexts do you use the Spanish language? Why? How much time do you use English compared to Spanish?
61. Which evaluation tools do you use to assess the pupils' knowledge? Do you think that the evaluation tools employed are different to the ones used before your involvement in the Bilingual Program? Which ones have you incorporated, stopped using or given greater importance? Why?
62. Do you consider the election of the Non Linguistic Areas appropriate? Why?

Finally, I would like to if you believe there is any aspect not mentioned in this interview which could affect the success of bilingual programs. If you would like to add anything else, you can do it; for my part, I have no more questions.

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