

**PSYCHOPEDAGOGICAL FACTORS THAT AFFECT L2 LISTENING
ACQUISITION IN DIVERSE SPANISH BILINGUAL AND NON-BILINGUAL
INSTRUCTIONAL SETTINGS: MULTIPLE INTELLIGENCES INFLUENCE**

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ABSTRACT. *Research on the mind, the brain and education has shed light on the process of learning a foreign language in bilingual education. The present study attempts to investigate the relationship between L2 listening skills and multiple intelligences in bilingual and non-bilingual contexts. The research was conducted on fourth year primary school students. It involved two schools in the province of Cordoba (Andalusia, Spain) and one school in the Community of Madrid, that had implemented different educative programmes for the acquisition of listening skills: Advanced Methods Corporation (AMCO) which is a bilingual education program that integrates multiple intelligence strategies into the curriculum, Content and Language integrated learning (CLIL) and the traditional method of teaching English a foreign language (TEFL). The results of this eclectic study indicate that a bilingual education program that includes multiple intelligence strategies benefits students' listening proficiency by promoting motivation in the learning process.*

Keywords: AMCO, CLIL, L2 listening skills, multiple intelligence strategies, motivation.

FACTORES PSICOPEDAGÓGICOS QUE AFECTAN A LA ADQUISICIÓN DE LA COMPRENSIÓN ORAL DE LA L2 EN DIVERSOS CONTEXTOS ESPAÑOLES BILINGÜES Y NO BILINGÜES: INFLUENCIA DE LAS INTELIGENCIAS MÚLTIPLES

RESUMEN. *La investigación sobre la mente, el cerebro y la educación ha arrojado luz sobre el proceso de aprendizaje de un idioma extranjero en la educación bilingüe. El presente estudio intenta investigar la relación entre la habilidad auditiva L2 y las inteligencias múltiples en contextos bilingües y no bilingües. La investigación se realizó en el cuarto año de educación primaria. Involucró a dos escuelas en la provincia de Córdoba (Andalucía, España) y una escuela en la Comunidad de Madrid que implementaron diferentes programas educativos para la adquisición de habilidades auditivas: Advanced Methods Corporation (AMCO), que es un programa de educación bilingüe que integra las estrategias de inteligencias múltiples en el currículo, el aprendizaje integrado de contenido y lenguaje (AICLE) y el método tradicional de la enseñanza del inglés como lengua extranjera. Los resultados de esta investigación ecléctica indican que un programa de educación bilingüe que integra inteligencias múltiples beneficia la competencia auditiva de los estudiantes, promoviendo la motivación en el proceso de aprendizaje.*

Palabras clave: AMCO, CLIL, competencia auditiva de la L2, estrategias de inteligencia múltiple, motivación.

Received 14 February 2018

Revised version accepted 2 May 2018

1. INTRODUCTION

Learning an L2 in bilingual settings involves understanding a speaker's accent or pronunciation, grammar, vocabulary of linguistic and non-linguistic subjects and meaning. Listening is considered to have a central role in language learning, Carter and Nunan (2001) define listening as a complex process through which we understand the spoken language. Similarly, Harris and Hewitt (2005) agree that oral comprehension is a complex process if all the mechanisms involved are taken into account. It implies several mental and cognitive processes in which the listener makes a connection between what he hears and what he already knows (Vandergrift 1999). Educational neuroscience "has a strong bias towards learning as a brain function, with the implicit assumption that if learning can be well understood, then good teaching will follow" (Geake 2009: 9). According to Baum *et al.* (2005), Fogarty and Stoehr (2008), and Viens and Kallenbach (2004) the "Theory of Multiple Intelligences" provides valuable insights that have influenced language teachers because of its implications for classroom development. Gardner (1983) proposes a

multidimensional view of intelligence and states that intelligent behaviour does not arise from a single unitary quality of the mind, rather he defines intelligence as the ability to solve problems or create products. This conception of the term intelligence encompasses capabilities that until now were not covered in traditional methods based on the academic testing and measurement of IQ (intelligence quotient).

Research studies have identified the positive effects of multiple intelligences on different aspects of second language learning (Amiriani 2010; Botelho 2003; Diravidamani and Sundarsingh 2010; Hafez 2010; Naseri and Nejad 2014; Yi-an 2010; Zarei and Mohseni, 2012). Concerning listening skills specifically, there is a significant relationship between total multiple intelligence scores and the listening self-efficacy of the learners (Golchi 2012; Ghapanchi, Serraj and Noordin 2013).

The aim of this study is to analyse the influence of multiple intelligences in L2 listening acquisition in different education programmes being implemented in Spain at the present time. This research was conducted in bilingual and non-bilingual settings corresponding to A.2. level of Common European Framework of Reference for Languages (CEFR). Different methodological approaches for the acquisition of L2 listening skills that integrate multiple intelligences into classroom instruction have been analysed: TEFL (Teaching language as a foreign language), CLIL (Content and Language Integrated Learning) and AMCO (Advanced Method Corporation), a bilingual program that integrates MI (Multiple Intelligence) strategies into its bilingual curriculum.

2. THE PROCESS OF DEVELOPING LISTENING COMPREHENSION SKILLS IN THE L2

Learners of a L2 in bilingual settings adhere to a listening model in which they use higher level information to not only identify sounds and words but also to try to decipher meaning in context. Ur (1994) states that there are obstacles that greatly hamper oral comprehension in a foreign language, such as identifying sounds other than their mother tongue, understanding the intonation and accentuating the neutralization of sounds and interferences to focus on the message, grasping the intentionality of the speaker, as well as the understanding of vocabulary and structures. As noted by Rost (1990) listening is not strictly based on the passive reception and exact decoding of messages uttered by a speaker on the part of the listener. In this process, receptive orientation takes place in which the receiver must understand what the sender actually says, the constructive orientation in which the meaning is constructed and represented, the collaborative orientation in which the meaning is negotiated with the issuer and the transformative orientation in which meaning is created through participation, imagination and empathy (Rost 2002).

In this sense, the comprehension of oral texts from the cognitive point of view can be understood as a social phenomenon (Carrier 1999). In bilingual education, this is developed interactively between the participants and the environment that surrounds them: “The meaning of a word or phrase is clarified by its use in a specific sentence or social situation. The only real way to understand a speaker’s message or intention is to guess the meaning - something we all do routinely in our native language” (Rubin and Thompson 1982: 75).

Thus, the sociocultural vision of language becomes important in the process of listening in the classroom. In light of this assumption, Thorne (2000) supports the finding that a double process that links the social and psychological dimension of the interactive process can be identified, that is to say that bottom-up processing is initiated due to an external source. According to Nunan (1997: 1) this consists of “process of decoding the sounds that one hears in a linear fashion, from the smallest meaningful units (phonemes) to complete texts” and top-down processing in which the listener actively uses their prior knowledge of the context to attribute meaning to language input. Additionally, Peterson (1991) states that when we listen, bottom-up and top-down processes interact and this interaction leads to understanding. With regard to the levels of interaction, Lynch (1997: 385) distinguishes between different levels in the listening processes: a cognitive interaction between knowledge sources, context and lexical knowledge, a behavioural interaction and a social interaction when we engage in conversations.

Taking these considerations into account, the listening process differs depending on the methodological approach used in educational settings. According to Liubinienè (2009: 90) “listening in a CLIL environment is different from listening in a content lesson conducted in the mother tongue and from listening comprehension tasks in language lessons”. A CLIL teacher is constantly providing the students with language scaffolding. However, there are several factors that can hinder comprehension in the foreign language such as speech rate, language structure and lexis complexity, phonological features, deficit of visuals, background noise and interruption of concentration or hearing.

3. NEUROSCIENCE AND EDUCATION: MULTIPLE INTELLIGENCES INFLUENCE ON L2 LISTENING ACQUISITION

3.1. *THE THEORY OF MULTIPLE INTELLIGENCES AND ITS IMPACT ON EDUCATION*

Recent advances in neuroscience have improved our understanding of the process of learning (Wolfe 2010). The results of studies carried out on the brain attained by the likes of Caine and Caine (1997), Jensen (2004) and Zaidel (1975) have had a significant impact on education. Relevant studies on hemispheric

specialisation show that both hemispheres involve reasoning, thinking and complex mental functioning (Beauport and Díaz 1994; Sperry 1974; Ortiz 1985).

When focusing of the psychological implications of these findings, Gardner (1983) sets forth that intelligence is not only based on categorising cognitive aspects and proposes the theory of multiple intelligences. The theory is based on the idea that every individual owns a set of intelligences located in different regions of our brain. He proposes a new conceptualisation of intelligence and defines it as the ability to solve problems and create products. He identifies the following types of intelligences: verbal-linguistic, logical-mathematical, musical, bodily kinaesthetic, visual-spatial, intrapersonal, interpersonal, natural and spiritual.

According to Gardner (2011), each intelligence does not exist in isolation from the others. All tasks, roles and products of our society require a combination of intelligences, even when one or more is more significant. In relation to this phenomenon, Gardner (1983) develops an intelligent school model based on learning as a consequence of the act of thinking and as a form of deep understanding in which knowledge can be put into practice.

3.2. THE INFLUENCE OF MI IN L2 LISTENING ACQUISITION

In an attempt to determine the relationship between MI and listening skills in particular, various studies have been carried out in recent decades. The findings indicate that there is a positive correlation between MI and listening achievements. The research conducted by Naeini and Pandian (2010), and Davoudi and Chavosh (2016) explores the way in which multiple intelligences and listening self-efficacy scores are linked. The findings from both studies indicate a positive correlation. Naeini (2015) examined the potential effects of MI based activities, such as learning styles, on students' listening proficiency. The findings revealed that the integration of MIT (multiple intelligence theory) contributes significantly to improving the EFL learner's listening comprehension skills. Thus, the influence of MI is more significant if teachers integrate all MI strategies into the curriculum instead of just the most developed ones.

In the listening process, O'Malley *et al.* (1989) identified three main types of strategies to facilitate comprehension: metacognitive strategies, cognitive strategies and socio-affective strategies.

The Multiple Intelligence Theory is an excellent tool for developing metacognitive strategies that regulate the learning of the second language. The application of MI strategies enables teachers to build different frames for working on processes such as generating ideas, checking, self-monitoring, transferring,

selective attention, evaluating, planning, note-taking, revising and drafting. According to Armstrong (2009: 78), logical intelligence can be stimulated using diagrams and mind map classifications and categorisations. Spatial intelligence may also help listeners to organize incoming information spatially. In the processing stages from sound perception to syntactic parsing and semantic analysis, linguistic intelligence is required. Furthermore intonation, tone sensitivity and stress may be improved with musical intelligence.

Concerning cognitive strategies, specific instruction in listening comprehension performance related to inferencing, visualising, problem solving, predicting and summarization is applied. Visual-spatial intelligence is a strategy that may help students to transform what they are listening to into images and to place these images on what is known as an “inner blackboard”, which will then be very useful for generating ideas and for planning (Armstrong 2009: 80). Regarding problem solving, different tactics can be applied at different phases such as the heuristic approach. Armstrong (2009: 78) argues that searching for analogies during problem solving, separating several parts of the problem and proposing possible solutions are all examples of heuristic principles.

Finally, socio-affective strategies are the techniques that listeners use to engage with others, to verify understanding and to diminish anxiety. The cognitive strategies establish a level of empathy between the teacher and the students and include feedback, self-control and clarification (Liubinienè 2009: 90). The result is that the listening processes develop a strong psychological and social dimension in which emotional intelligence (Goleman 1995) in the classroom becomes especially relevant. Interpersonal intelligence is also important for future learning and social relations (Gardner 1998). Diaz-Barriga (2002) finds that learning is more effective when there is empathy among students, due to the fact that it improves the relationships. It is important to build an environment of cooperation among equals according to Johnson and Johnson (1994). They proposed the division of a cooperative activity into five phases: class organisation, presentation tasks, planning of activities, role of the teacher and finally evaluation. Another important intelligence that enhances the socio-affective dimension is intrapersonal intelligence, according to Bogod (1998), as it provides an insight into the subconscious and allows us to identify our thoughts and emotions reflecting on our personality, to become aware of our inner feelings, and to understand the role that we have with respect to other human beings.

4. APPROACHES FOR THE ACQUISITION OF L2 LISTENING ACQUISITION

This study analyses different approaches for L2 acquisition.

4.1. TEFL

This approach is based on a traditional methodology which is mainly focused on the transmission of knowledge through the linguistic and the logical-mathematical intelligences, without taking into account the different intelligence level or capacities of students. It is mainly focused on the grammatical rules of the target language, guided by formal criteria which require the memorisation of rules and vocabulary. The teaching of the foreign language using this methodology is uni-directional, hence there is little or no interaction among students. The traditional school is based on the development of knowledge, forgetting that information can be learned through different channels and how children should learn in school (Gardner 2011).

4.2. CLIL

CLIL has become an “umbrella term that covers a wide variety of education programmes and initiatives based on the transmission of academic content by using a foreign language in the classroom (Méndez and Pavón 2012: 573)”. CLIL is a “dual-focused educational approach” in which there is an “integration” whereby academic knowledge is transmitted in a foreign language. There is no fusion when learning the content of non-linguistic and linguistic subjects (Coyle, Hood and Marsh 2010: 1). The learning process is more meaningful and less stressful than with traditional methods, because of the greater exposure to L2 (Heras and Lasagabaster 2015). With this methodology, MI strategies are effective but students have less exposure during lessons than with the AMCO method, due to the fact that they are used randomly and are not integrated into the language curriculum.

4.3. AMCO

AMCO is an American bilingual program headquartered in San Diego (CA, USA) which was implemented in Spain in 2007/2008 (AMCO International Educational Services Co.). This program integrates L2 learning and contents in order to enrich perspectives in both subject matters and motivate students at the same time (Martorell *et al.* 2012). One of its most innovative characteristics is that it is based on Gardner’s assumption that all human beings possess each type of intelligence and that they are educable. This is an innovative American methodology that includes MI strategies in all academic areas of the curriculum.

5. RESEARCH DESIGN

5.1. OBJECTIVES AND RESEARCH QUESTIONS

The general objective of the present study is to investigate the relationship between multiple intelligences and the development of listening skills. A comparative analysis has been made of different educational strategies in which the integration of MI in the curriculum differ: The AMCO bilingual education model, CLIL and the teaching of the L2 following the EFL methodology. This research was conducted in three educational centres in which the aforementioned methodologies are implemented in the fourth year of primary education.

In order to analyse the effectiveness of the integration of multiple intelligences strategies we have designed the following research questions:

1. Does the integration of multiple intelligences strategies in the curriculum lead to the improvement of learners' proficiency in listening comprehension?
2. What is the repercussion of the different methodologies analysed on the acquisition of listening skills?
3. Does the integration of multiple intelligences in a bilingual programme promote motivation in the listening learning process?

5.2. SETTINGS AND PARTICIPANTS

This study aimed to analyse the influence of MI through three different models of learning L2 listening skills in the foreign language. Given that we carried out the study in bilingual and non-bilingual settings, the groups were naturally formed according to the centre's criteria. The sample comprises of 71 students that have Spanish as their L1 and that are in the process of learning English equivalent to A2 level in the Common European Framework Reference for Languages of the Council of Europe (CEFR).

This study was carried out in the fourth year of primary education. The centres were selected in accordance with the implementation of the three approaches analysed in this study.

The first school involved in this study is the Salesian School, in Montilla (Córdoba), which implemented the traditional method of foreign language teaching. The second school involved in the study is the "Colon School" in Córdoba (Andalusia), in which CLIL is implemented. The third school is the "Ramiro de Maeztu School" in Madrid, which is a pioneer school in the implementation of the AMCO.

5.3. DATA GATHERING PROCEDURE

In this eclectic study, we applied two paradigms: quantitative and qualitative. Data gathering took place during the second quarter of the year in several phases. The first phase consisted of the collection of test data to measure the level of listening acquisition. There were two sessions per group, in which special attention was paid to the different methods used in listening instruction. The variable entitled “listening skill” refers to:

- The ability to recognize basic vocabulary and understand short, frequently used phrases related to oneself and to the family, when speaking clearly, slowly, with visual support, even if the text is not understood in its entirety.
- The ability to understand the pronunciation and spelling of words in simple sentences and short texts.
- The ability to understand the global meaning of oral texts related to the students' closest environment.
- The ability to understand key words and basic expressions, related to classroom activities or the school context.

In the second phase, data collection took place to measure the level of student motivation. The Emotional Intelligence Scale helps us to discover the potential for self-realization and high emotional capacity. This scale was designed by Rubén Darío and Jenni Elizabeth and was adapted by the Research Group on High Capacities and Multiple Intelligences of the University of Murcia. It is a self-assessment test using a Likert scale, consisting of twelve items for each of the components, with several potential responses. The variable entitled “motivation” refers to the ability to be in continuous pursuit of the achievement of objectives, facing problems and finding solutions. The language of the questions was simple, so that it could be answered according to the characteristics of each child. It consisted of 12 items. Each question could be answered by choosing the possibility of “never”, “sometimes” and “almost always”, evaluated between 0, 1 and 2 respectively. The assessment of the scores in each area was: 0-6, very low 7-12, normal-low 13-18, normal 19-24, high.

Finally, in the third phase of the study, we proceeded to collect qualitative data through observation in which the instruments used were diaries, reports, and field notes.

6. RESULTS AND DISCUSSION

Quantitative data collected in the educational centres was analysed by specialists at Cordoba University's Department of Statistics. Furthermore, the results were interpreted within the qualitative framework of the researchers' observations.

Figure 1 shows the listening results in the Salesian school where the traditional methodology was used. As shown in figure 1, the ratings obtained were favourable considering that 38.9 of students obtained SB (excellent), 16,7 NT (very good), 11.1% BI (good), 27,8% 5,6 SU (pass) IN (fail). These results indicate that students who are exposed to the traditional method of instruction have more difficulty in developing L2 listening skills. Students demonstrated inaccuracies when recognizing basic vocabulary and understanding short phrases.

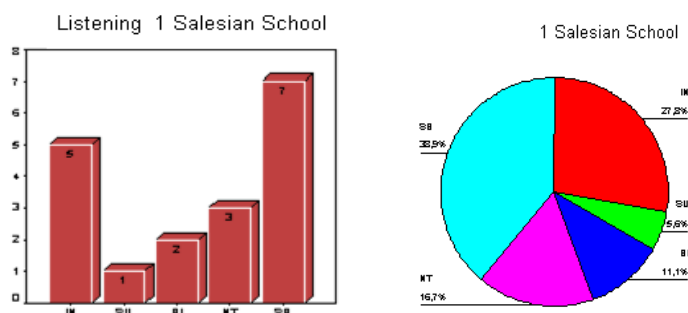


Figure 1. Variable Listening Skills in the Salesian School.

Figure 2 concerns the results of the listening test obtained by students in the CEIP Colon, where the CLIL methodology is used. The findings indicate that 66,7% obtained SB (excellent), 18,5% NT (very good), 3,7% BI (good), 7,4%, 11.1% IN (fail). The results from the CLIL group reveal that the scores are not homogeneous. This data shows that more than 50% of students obtained a high score in listening skills.

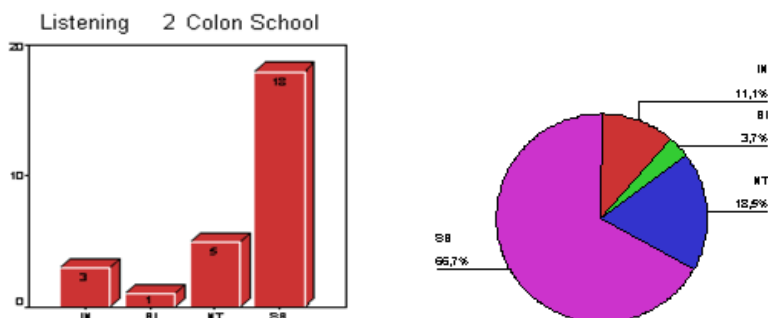


Figure 2. Variable Listening Skills in the Colon School.

Figure 3 shows the listening test results in an independent study of the Ramiro de Maeztu centre where the AMCO methodology was used. 92,3% of the students obtained SB and 7,7 was the omitted value. The findings obtained are homogeneous and reflect the excellence of the students' listening acquisition.

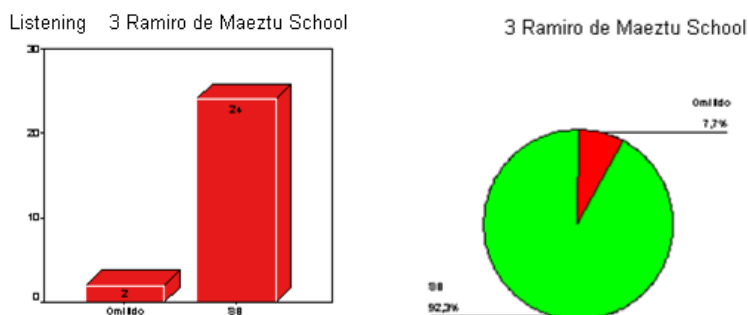


Figure 3. Variable Listening Skills in the Ramiro de Maeztu School.

Figure 4 illustrates the global study of the centres and Table 1 offers a descriptive analysis of the listening test that was carried out in the selected centres. These serve to demonstrate that participants that followed a bilingual programme in which MI strategies are integrated into the language curriculum, obtained proficiency level in listening comprehension. The results are high and homogeneous. Students following MI strategies, successfully demonstrated the ability to recognize basic vocabulary and

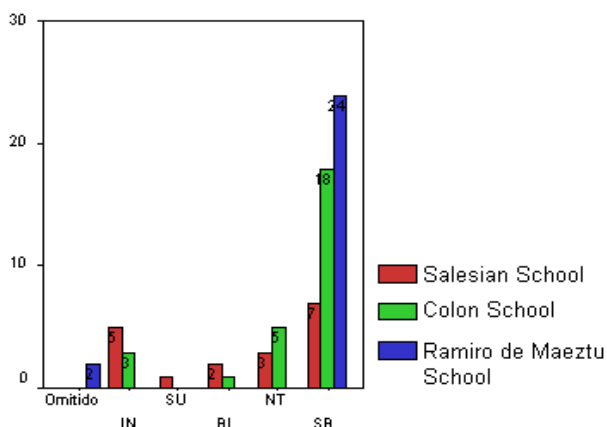


Figure 4. Global study of the centres.

understand short, frequently used phrases, as well as the ability to pronounce and spell words in simple sentences and short texts. Regarding the results of the Colon School, in which participants were exposed to the CLIL methodology, the results are not heterogeneous and they are lower than those of students exposed to the AMCO methodology. Finally, regarding the results in the Salesian School, in which participants are taught using traditional methods, students obtained a lower score. These findings suggest that the inclusion of MI strategies in the curriculum has a significant effect on the acquisition of their L2 listening skills.

Table 1. Descriptive Analysis of the Listening Test in the Selected Centres.

SCHOOLS			Statistics	Error type	
LISTENING SKILL	Salesian School	Average		7,0667	0,59288
		Interval for the average 95%	Lower Limit	5,8158	
			Upper Limit	8,3175	
		Median		7,25	
		Typical Deviation		2,51536	
		Minimum		2	
		Maximum		10	
		Rank		8	
	Interquartile		5		
	Colon School	Average		8,5926	0,41002
		Interval for the average 95%	Lower Limit	7,7498	
			Upper Limit	9,4354	
		Median		9,5	
		Typical Deviation		2,13053	
		Minimum		2	
		Maximum		10	
		Rank		8	
	Interquartile		1,5		
	Ramiro de Maeztu School	Average		9,8958	0,04234
		Interval for the average 95%	Lower Limit	9,8082	
			Upper Limit	9,9834	
		Median		10	
		Typical Deviation		0,20743	
		Minimum		9,5	
Maximum		10			
Rank		0,5			
Interquartile		0			

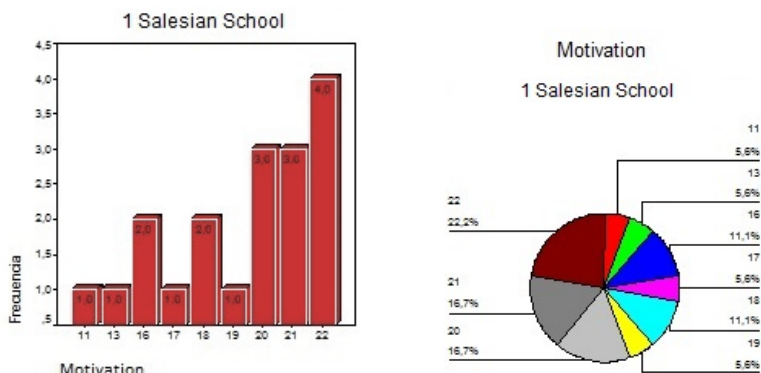


Figure 5. Variable Motivation in the Salesian School.

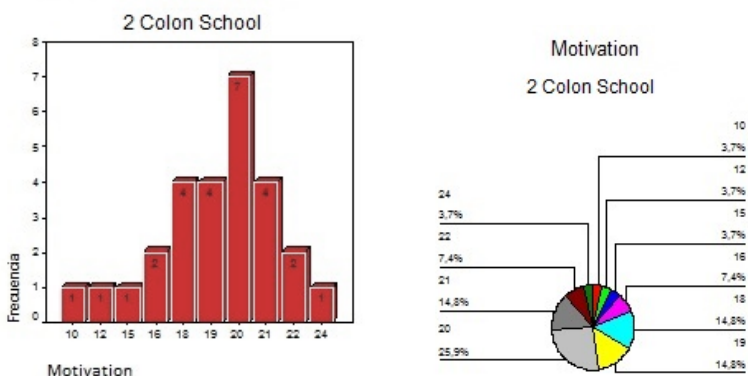


Figure 6. Variable Motivation in the Colon School.

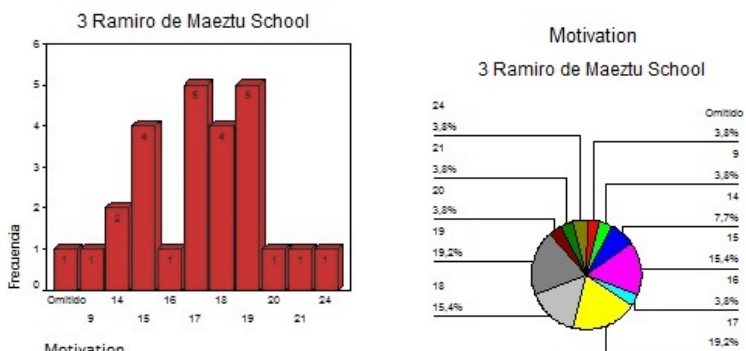


Figure 7. Variable Motivation in the Ramiro de Maeztu School.

Table 2. Descriptive Analysis of Motivation in the Selected Centres.

SCHOOLS			Statistics	Error type	
Motivation	Salesian Shool	Average		18,83	0,76
		Interval for the average 95%	Lower Limit	17,24	
			Upper Limit	20,43	
		Median		20	
		Typical Deviation		3,204	
		Minimum		11	
		Maximum		22	
		Rank		11	
	Interquartile		4,5		
	Colon School	Average		18,85	0,58
		Interval for the average 95%	Lower Limit	17,67	
			Upper Limit	20,04	
		Median		20	
		Typical Deviation		2,996	
		Minimum		10	
		Maximum		24	
		Rank		14	
	Interquartile		3		
	Ramiro de Maeztu School	Media		17,2	0,57
		Interval for the average 95%	Lower Limit	16,02	
			Upper Limit	18,38	
		Median		17	
		Typical Deviation		2,858	
		Minimum		9	
Maximum		24			
Rank		15			
Interquartile		4			

The results of the “motivation” variable indicate that the students exposed to the CLIL methodology in the CEIP Colón, obtained an average of 18.85. This was followed by the Salesian centre, where English is taught as a foreign language with an average score of 18, 83. Finally, students from the CEIP Ramiro de Maeztu, in which the AMCO methodology is taught, obtained 17.2. The overall assessment used in the three centres identified a range of scores from 13-18, which implies that this is normal in the three centres.

On the basis of the data collection, some significant findings emerge. The first research question attempted to explore if the integration of multiple intelligences

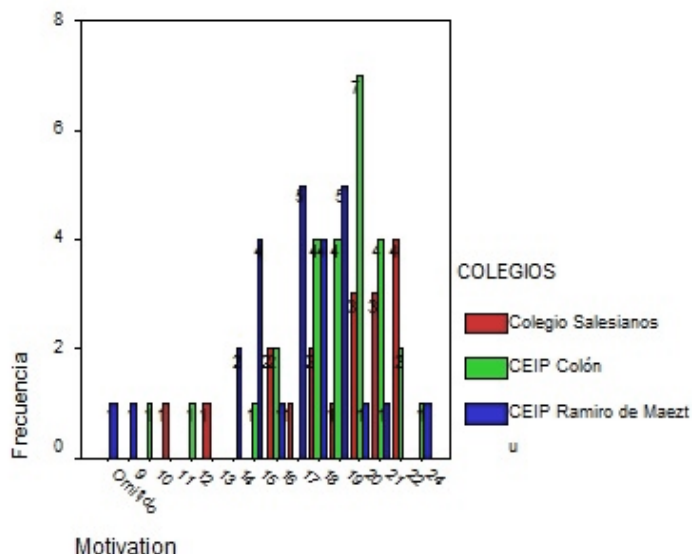


Figure 8. Global study of the centres.

strategies into the curriculum lead to the improvement of learners' proficiency in listening comprehension. The results indicate that there is a positive correlation between MI strategies and listening scores. The integration of MI strategies into the language curriculum in a structured way, allows the teacher to design instruction in an effective manner in order to aid the acquisition of listening skills. Furthermore, students make connections with other areas when MI strategies are used systematically in language lessons. This is a very important factor in bilingual education, in which the learning of linguistic and non-linguistic subjects is promoted at the same time. MI strategies promote a facilitating environment for listening activities, providing a meaningful learning and social context that enables the students to understand the second language and improves their cognitive development.

Regarding the second research question, in which we investigate the repercussions of the different methodologies on the acquisition of listening skills, significant differences were identified. In this study, we analysed the development of listening skills using two bilingual methodologies, AMCO and CLIL, as well as the TEFL, in order to study the effect of multiple intelligence strategies. According to Pavón (2007: 56), in bilingual education teaching is based on the integration of content and language learning and the teaching programmes are built on a common basic structure such as, "basic information, title of the unit, cross-cutting themes,

aims, objectives, content and sequencing of the unit, design and sequencing of activities, evaluation, materials and bibliography". The evaluation of the acquisition of listening skills under the bilingual programme AMCO, that integrates MI into the curriculum, is proof that there is a higher level of listening acquisition than with other methodologies in which MI strategies are used in the curriculum, although not in an integrated or systematic manner. The results of the listening scores of students exposed to the teaching of English as a foreign language are below average compared to students subjected to the aforementioned methodologies. One of the most striking differences is that the AMCO and CLIL bilingual programmes have a psycho-pedagogical dimension that improves students' listening level compared to teaching English using a traditional methodology. TEFL encompasses a series of concepts concerning the transmission of knowledge using the L1 and the translation to the L2. Another important difference of this model compared with AMCO and CLIL, is that objectives and content are not integrated. Regarding the application of MI in this methodology, instruction is mainly based on logical and mathematical intelligences without consideration of the differences among students, some of whom had great difficulty with their listening skills. Recent research highlights the importance of the integration of MI instruction into different school subjects (Geimer *et al.* 2000; Kuzniewski *et al.* 1998). A methodology in which MI strategies are applied in instruction, provides the students with a variety of strategies and activities that engage the student's natural talents. In this sense, Arnold and Fonseca (2004) agree that MIT has strong implications for teaching and learning. The findings from the observation phase of the listening instruction show that the application of MI strategies in the classroom enables students to think and act flexibly in various contexts. The AMCO and CLIL methodological strategies focus on learning through cooperative tasks, in this sense personal intelligences reinforce the process of listening and speaking. Both programmes recognise the importance of the use of MI strategies, in spite of the fact that they are organised in a different way.

Finally, the third research question asked whether the integration of multiple intelligences into a bilingual programme promotes motivation in the listening learning process. Motivation is one dimension of emotional intelligence (Goleman 1998) that enables students to develop without being affected by a negative mental state. The findings demonstrate that the students' level of motivation in the different centres is at a normal level, meaning that there is no significant correlation.

7. CONCLUSIONS

The present study has aimed to investigate the potential effectiveness of the application of multiple intelligences strategies in different methodologies and

the students' achievements in listening skills through a comparative methodological analysis. Data collection was reinforced by the observation phase of the different L2 learning settings. The results bring several issues regarding the relationship between MI strategies and listening achievements to light. On the basis of the results obtained, we found that there is a remarkable difference in the score of the listening tests depending on the methodology used. We estimate that a programme that integrates MI strategies into the curriculum, has great repercussions on the process of listening comprehension, favouring both cognitive and emotional dimensions. It is important to note the relevance of the interpersonal and intrapersonal intelligences in the process of listening achievements. In this sense, Carpena (2010) supports the assumption that all aspects of the primary stage must be programmed, for example by using techniques to help students to manage their emotions. The integration of MI into the curriculum provides students with a variety of ways to develop their listening skills. The results of the third research question show that students demonstrate the right attitude and motivation towards listening acquisition in the L2 in all the centres in which the different approaches were applied. According to Dörnyei (2005), motivation is acquired from successful engagement with language learning, this improves creativity and activates the thinking process of the students. As a positive consequence of this process, student comprehension and problem-solving are improved. Recent research into foreign languages has shifted towards more learner-centred methods that take learners' characteristics and differences into greater consideration (Elgün and Doğan 2016: 1688). The findings show a certain need for a change in the traditional methods characterized by the excessive emphasis placed on the rational element and on a unidirectional and non-participatory methodology.

In the light of the results obtained, we suggest that using MI in the curriculum leads to higher efficacy and to a higher level of listening skill achievement in primary education. With regards to possible lines of future research, an eclectic approach could be used to investigate the contribution of psycho-pedagogical factors that affect the acquisition of listening and other skills.

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