MULTIPLE INTELLIGENCES THEORY APPLIED TO SECOND LANGUAGE ACQUISITION

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Abstract

In the process of second language acquisition teachers must bear in mind that the effectiveness of the teaching process depends, most of the times, on the teaching materials and methodologies implemented in the classrooms.

In continuing with this notion we have developed a programme based on multiple intelligences theory which is combined with the student's profile in order to improve the teaching and learning process in a second language classroom.

Key words: *multiple intelligences, motivation, methodology, L2*

1. INTRODUCTION

The study of the acquisition of second languages (SLA) has been highly expanded in the 20th century, but mostly from the 21th century Asiatic students travel abroad to learn and become knowledgeable in relation with occidental's culture with the goal of applying it later in their countries. Thus, the number of Chinese students and Asiatic students in general has increase in a significant way.

The theory of multiple intelligences provides the keys to attend to learners' individual differences and nationalities. In recent years, diverse investigations based on this theory have revealed its efficiency in various educational spheres. According to, Ballester, Ferrándiz, and Prieto (2002), in a study of the theory of multiple intelligences, identified students with extraordinary skills in certain areas, whereas Lorenzo and Reverdito (2004) focused on the assessment of activities from the perspective of multiple intelligences to subsequently apply it to teaching chemistry.

In the world of the international students, their nationality is yet to be explored with regard to teaching–learning Spanish, overall focusing on Asiatic students. Some published works were conducted by implementing programmes based on the theory of multiple intelligences applied to school spheres but there are few publications about students from different cultures learning a foreign language in the same classroom. Because of this concern, we decided to create an intervention program using the methodology based on multiple intelligences with a group of international students. By implementing a program with these characteristics, we proposed to determine the way international students learn Spanish in Spain in the same classrooms, data would be collected that would allow us to improve the quality of their learning and to determine the effectiveness of the multiple intelligences theory in this group. Traditionally, methodology in the field of teaching languages has focused on linguistic intelligence, without considering other intelligences. In this study, we implemented a program in which we focused on the different intelligences and skills, each learner possessed focusing on the learner's profile so that the methodology used would provide instruments to acquire significant learning.

Chinese learning characteristics are well know between teachers and teaching methodology researches, in this respect, Cortazzi and Jin (1996) say that they had a high storage capacity, as long as perseverance and a strict methodology, although their motivation was aroused and changeable. They also showed passive participation which made it difficult to communication in class, as long as their function is listening to the teacher without intervention. Their way of learning before and while we were there was learning lists of grammar and vocabulary with Chinese teachers who were explaining to them in Chinese.

Their motivation depended on their learning necessities: they should learn Spanish enough to follow the lessons in Spain. Some of them tried to learn with the purpose of being able to speak and communicate on their own, but other students wanted to depend on them, as long as they are in the same group, and they showed a low attendance and interest.

In the present research, we pretended to improve the learning process and its results by applying a specific motivation programme based on multiple intelligences theory. As we consider motivation as the motor of learning skills, we collected information about their individual differences and took advantage of this information, therefore it helped us to teach Spanish in a satisfactory way.

2. MOTIVATION AND INDIVIDUAL DIFFERENCES

According to Goleman (1995) the capacity of motivating yourself is one of the high capacities related to intrapersonal intelligence. Motivation is a main aspect of learning languages: so long as a student is motivated, student will learn. If they feel positive emotions in the classroom, it immediately reflects in their learning processes. At the same time, students realize his or her progress and it makes their intrapersonal intelligence develop in a stronger way help them to achieve other developmental intelligences.

The attitude about learning languages in general, it's about the language you want to learn, and about the community and culture's language; the socio-affective development such as confidence, anxiety and fear; age and development state are psycho-social factors which include motivation and attitude, and they are useful to maximize learning processes in the L2's development. Firstly, we will analyze motivation as one of the main factors to determinate a second language and student's profile, as long as it could predict success.

Motivation has been strongly considered as a main point to distinguishing success in a second language acquisition. Individual who are more motivated will learn faster and better than those who are not. It seems clear that the level of motivation is decisive in learning a second language and to continue learning it.

But an inherent characteristic of motivation is its changeable status, and depends on the context. The student can be affected by several motivation types (Gardner and Lambert, 1972). Individuals who have an instrumental motivation and want to learn L2 to achieve some goals or useful aim, such as getting a job or publishing a scientific article, but not for a social purpose. By comparison, those students with an integral motivation want to learn L2 with social aims, to be part of a social community, using the language and being accepted by others.

3. GOALS

We started out with the hypothesis that everyone has at least eight intelligences, which do not function separately, but instead are mixed in different proportions in each person and, although intelligence has a genetic component, it is has its own capacity and, therefore, it is a skill that can be developed.

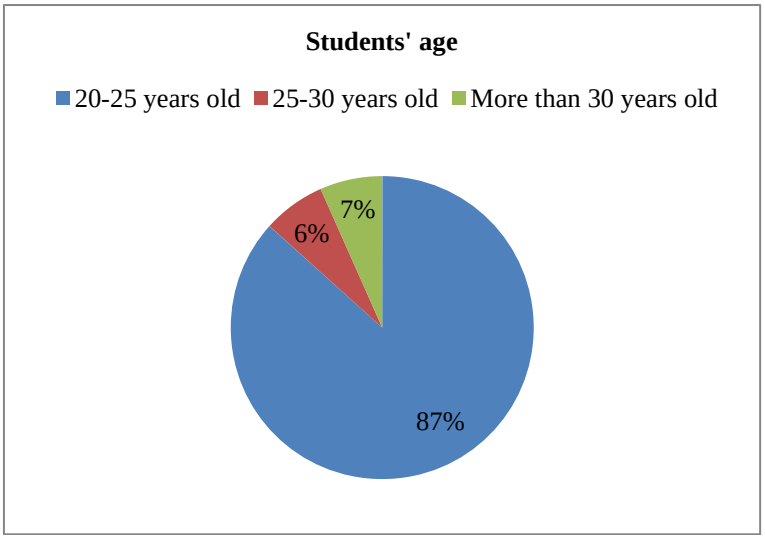
Firstly the goal of the study was to create a teaching programme based on the theory of multiple intelligences and the motivations of the student in order to improve their knowledge in Spanish as a second language. Therefore focusing on the ways each individual learns and analyzing the methods and the process of learning. Secondly, the implement methodology is verified and checked for validity and its effects in the present context.

The implementation of the programme consisted on integrating activities and workshops in Spanish that allowed the students to advance effectively in their learning, by motivating and encouraging them using their different intelligences in action.

4. CONTEXT ANT PARTICIPANTS

Before elaborating a specific teaching programme, we should take into account student's nationality, motivation, ambitions, age… as well as their context. This study was conducted in the Language Centre of the University of Almeria; the lessons were taught twenty hours per week, in two hours sessions from Mondays to Fridays and divided in three subjects: grammar, culture and skills.

The Spanish class was made up of 15 students, who were divided into three nationalities: thirteen Chinese students, a Thai woman and a Korean man. All of them are Asiatic, so the way of learning and the association and comprehension of ideas to utterances in the two languages is carried out very similarly. The ages were between 20 and 37 years old, although the main group was the youngest, with the average age of 21 years.



Separately from the ages, we count the presence of four men and eleven women, so the data could be relevant for the main group which composed of 20-25 year old women.

Focusing on education, most of them had quite a good concept of Spanish because they have been studying economics and Spanish for two years. Specifically, Chinese students who came to Almeria with the purpose of studying an economic module at the University of Almeria, so to improving in Spanish was crucial for their future. The minor group wanted to learn Spanish as an instrument to find a job and communicating with people while they are living here.

5. INSTRUMENTS

To achieve our goals, it is essential to have knowledge of students' individual talents, so we needed instruments to gather information about them. Afterwards, based on those results, we will develop a specific program to motivate students and their developed intelligences.

An essential requirement to learn languages is to use adequate material depending on each level. Firstly, to focus on individual profiles of each student and the class in general, the students had to complete a Spanish level test which was given at the beginning and at the end of the course, taking into account grammar, vocabulary, speaking, and writing in Spanish.

Secondly, as long as our programme is based on Gardner's theory, students had to fill in a multiple intelligences test. The aim was to determine the most developed intelligences of the students in order to exploit linguistic intelligence with regard to the others and to develop the diverse skills in a way that

was adapted to the group profile. It was important to do the test before doing any other activity in this way collecting reliable information.

We interviewed students in order to develop a program adapted to the characteristics of the students we had to know what level Spanish they had, what was their motivations factors, and what kind of activities they carried out with more or less difficulty, their educational level, languages they speak, the goals they hoped to attain, if they had an anxiety or worries, etc., and what type of intelligence was more developed in them. With this material, we developed several individual questionnaires and collected the information needed. During this oral interview, each student was asked individually about personal information such as name, nationality or studies. Then, we focused on goals and expectations of the Spanish course. They told us about their interest in languages, their way of learning, their facilities and difficulties during the lessons, and anxiety while they spoke in Spanish, among others.

Finally, apart from those questionnaires, we collected evaluation sheets from the students every week, checking their motivation in each teaching unit, the vocabulary learnt, which was the most difficult skills, the easiest, and the way they learnt. In addition, the teacher wrote further information in the teacher's diary, where he noted about the different activities, student's behaviors and the intelligence they developed.

The tasks were designed with all the information collected from the multiple intelligences theory test, the student's profile and their cultural background, and, in general, using the information we gathered from the above described instruments, so the tasks were designed taking into account the student's profiles and their individual differences and motivations.

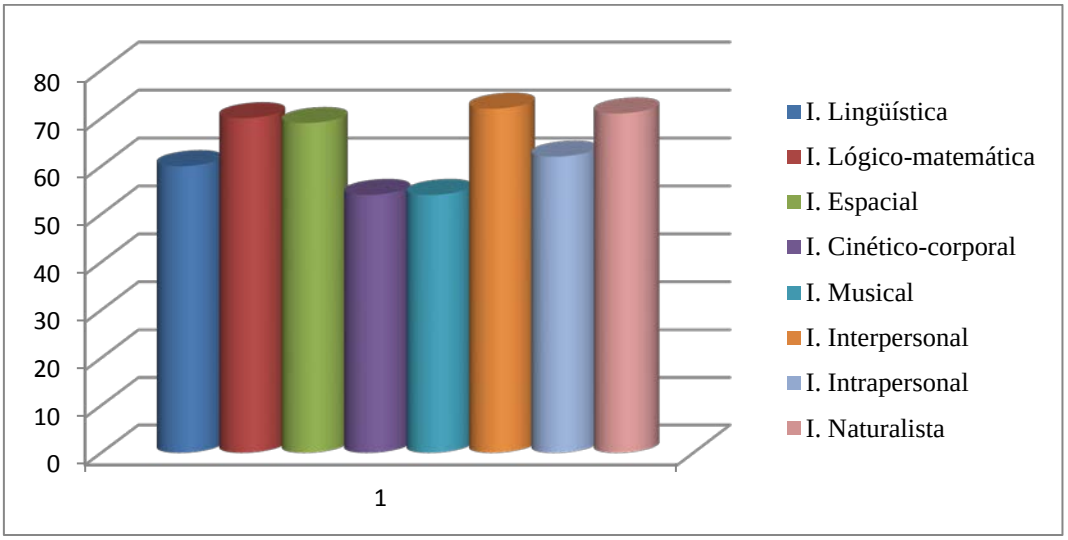
6. METHODOLOGY

Following these principles, we created a profile of the group that provided data about the way the students learn. Subsequently, we developed a programme with some tasks that exploited the learners' most highly developed intelligences. Therefore, the methodology implemented consisted of showing them the way they learn best so that they could be an active part of their own learning process, this motivated them and allowed them to learn Spanish satisfactorily.

6.1 Data compilation

During the first stage we collected several tests to get important information about the group. The first step was to separate students into different groups by testing their Spanish level. We developed an exam where students demonstrate their different skills (speaking, writing, listening and reading). The level requirements were between A2 and B1 in the Common European Framework of Reference for Languages (2002), so that we could look for adequate material to improve this level.

After checking their Spanish level, we collected the multiple intelligences test results, therefore having an idea which intelligences are higher considered in the group. As demonstrated in the graphic, the most developed intelligence is the intrapersonal one, which means there is a deep knowledge of their own learning process and they could reflect upon it. This is an open door for other intelligences' development, where we could investigate further. According to the multiple intelligence tests, this was the group results:



According to the student's experiences in other languages, most of them learned English as a second language, so they already had earlier experience and exposure to languages which could be useful for their own development and the conscious progress of learning Spanish, which is learned as a third language. The majority speaks their native language at home with families and friends, and English is used only in specific situations to communicate with people from other nationalities. Most of them think that the best way of learning Spanish is speaking with classmates, teachers and living in Spain.

The interviews contributed qualitative data that was very useful to determine what motivated them to study Spanish, their goals and expectations, their anxiety in class, whether they noticed progress in their learning, their degree of satisfaction, etc. In the initial qualitative surveys, we can note the emotional state in which they face new challenge, overall the challenge of communicating in Spanish: they focus their attention on communication as a goal, but it is showed as the most difficult skill to develop in their learning process. Speaking Spanish is as difficult as listening to it, and it constitutes the base of Spanish communication. Most of them considered Spanish very difficult, although they taught their performance will be fast and they focus on the speaking skills as most important for communication. Their final goals are finishing their studies and, after all, getting a job. They understand the importance of learning Spanish for their future jobs and they think it would be difficult to learn, but they will in one or two years. During the interviews, we intended to increase the students' self–esteems, develop cooperation skills and increasing their interest and dedication to learning.

6.2 Implementation of the programme

Based on the data we collected from the students, we designed a number of tasks which encourage their multiple intelligences. As our main goal is to motivate Spanish students by using their different intelligences, using the intrapersonal intelligences as one the most developed intelligence in our group, we the observation was an important instrument, as long as our effort to increase their active part in their own learning progress could be quite satisfactory.

Linguistic intelligence, in addition to some other intelligences, was presented in all the activities that were carried out in classes. The most interesting ones was a combination of intelligences, such as the followings.

Task 1: At the beginning of the programme, instead of focusing on the most developed intelligence, we decided to check how minor intelligence could work in our group and how to re-establish its low importance by working with others. So, the first task we designed is focused on musical intelligence and the way it combined with other intelligences in such a way that students could improve their implication in the learning process by motivation.

The task had two stages, done on different days: With the first stage, they used their linguistic intelligence and musical intelligence as the principal ones; the second stage was developed after two days, and it was similar to the first one, but we didn't give the students the opportunity to read while they were listening, but in its place students counted with a video the images which made references about the song's and story. Without their linguistic reference, they had to be able to associate images with auditory signs. In that way, they coordinated their linguistic and visual intelligence, which is more developed than the musical one.

The goal of this activity was to prove lower intelligences have better results as long as they are combined with other intelligences which are at a higher level of development. If they work together, the learning process could be faster and satisfactory for the group.

Task 2: A positive point about multiple intelligences is that is practically adaptable and versatility. Taking advantage of its attributes, we tried to use the whole variety of intelligences, but naturalistic one in particular: this intelligence is one of the most developed in the group as well as one of the most difficult ones to implement in second language acquisition between adults.

After teaching the basic vocabulary about environment and directions, we separated the group into two groups depending on their spatial intelligence. "Group 1" was compounded by students with the highest spatial intelligences, and "Group 2"'s students were those who spatial intelligence at the lowest level.

The task was pseudo (fake) in the lecture students was given a map to follow some clues and in the end finding "the treasure". Utilization almost every single intelligence is the perfect way to combination: their linguistic intelligence to figure out the clues; their mathematic intelligence to solve logical problems; kinetic intelligence to move fast to achieve the end goal of finding the "treasure". Interpersonal intelligence to communicate and contact with the other members of the group; naturalist intelligence because they act and get along with the environment…

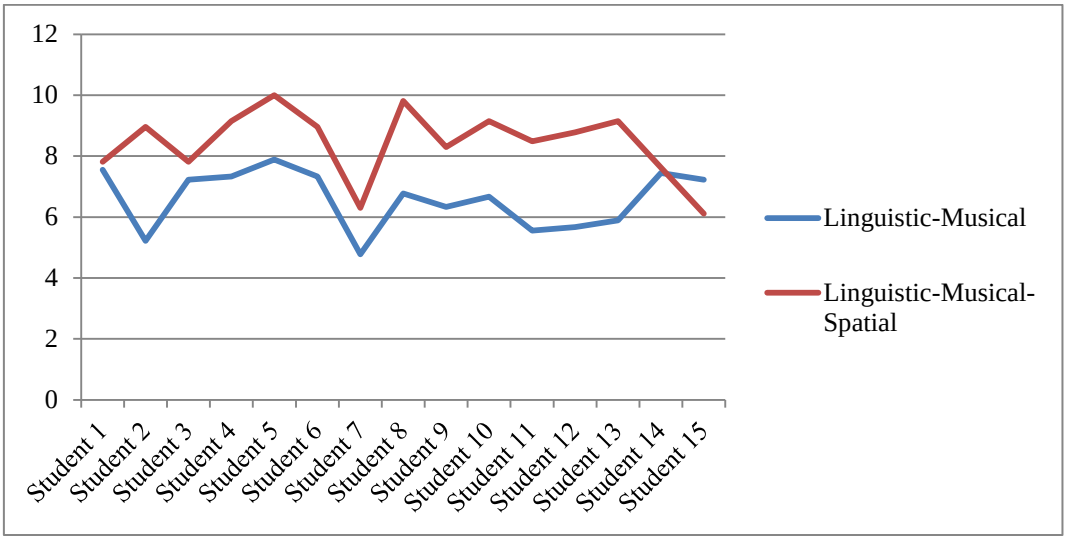
The goals for task 2 were to prove the reliable information which was provided by the students in the multiple intelligence tests, and at the same time to observe their behaviors while they carry it out. Under the hypothesis "Group 1" must win this game by arriving to the meeting point before "Group 2" does.

7. RESULTS

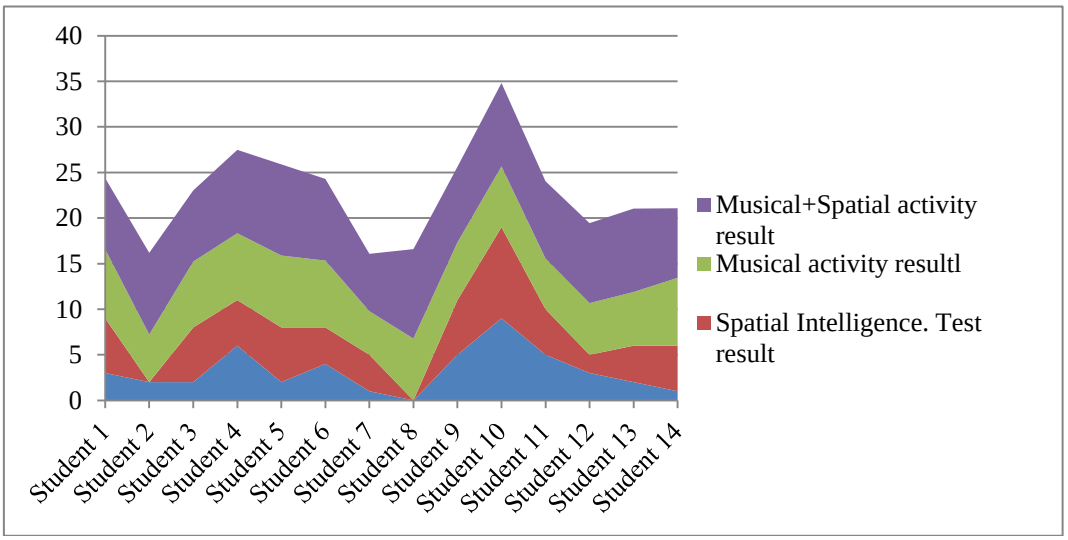
According to Gardner, some students are motivated integrally and some are motivated instrumentally. Integrally motivated students study Spanish in order to be identified with the culture of Spanish–speaking countries, finding their source of motivation in internal stimuli such as self–esteem and personal satisfaction. Instrumentally motivated students find their source of motivation in external stimuli such as occupational reasons or economic needs, for example. Although mentioned before, interviews showed the necessity of finding a job and having a successful economic life. Our students are instrumentally motivated and this aspect was considered during the course, because their needs and expectations were an essential motor.

According to the results of the tests, the well–developed intelligences among the workshop students were intrapersonal, spatial, interpersonal, and naturalist. Therefore, the activities performed promoted these intelligences. Most of the time, activities were focused on interpersonal skills, so we divided them into groups. There were some students in the class who had very well–developed interpersonal intelligence, so they coordinated the group fairly, organizing the leader and in turns, promoting their own intrapersonal intelligence.

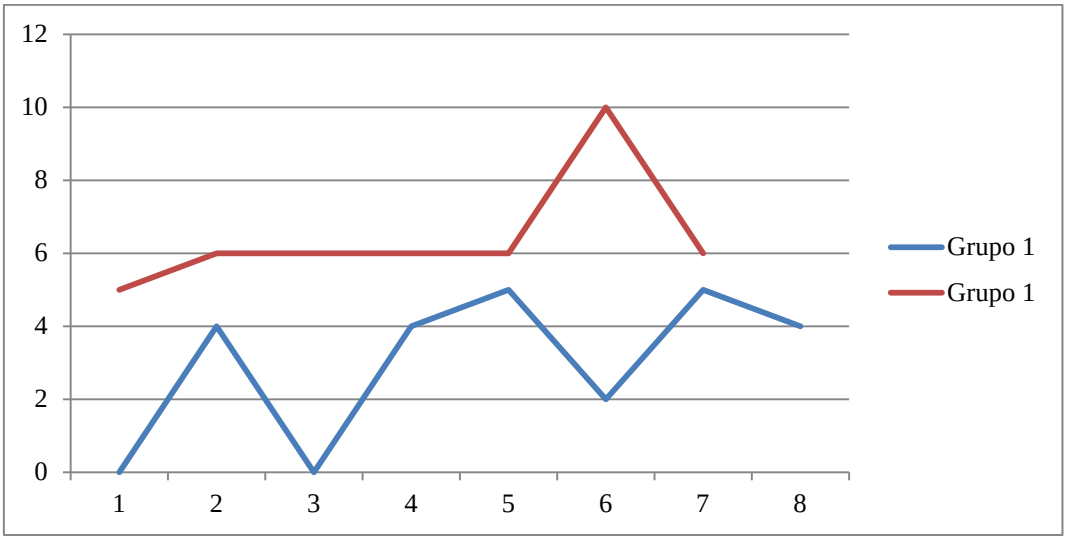
All activities carried out in class produced good results, but specially the one focused on the cooperation with other intelligences. In the case of the "Task 1" described below. With this activity, we practiced linguistic, musical, and spatial intelligence. The satisfactory result is showed in the graphic below:



In the majority of cases, results were better as long as we combine a well-developed intelligence with a low one, and it shows a fast improvement in the way they learnt. We used linguistic and musical intelligence in both stages, but only by adding a well-developed intelligence in the group such as spatial, we notice the differences in the scores.



Another significant activity was carried out in groups. As interpersonal intelligence is a well-developed intelligence in our group, working in groups was very positive. The teacher chose their participants depending on their personal intelligences, so they had the opportunity to share their knowledge with similar ways of working. Participating in this type of activities based on different intelligences to help students to stand out in some activities, and in other cases this did not occur, to be enriched by the partner's skills. If the person who is closest to you when you are trying to solve a problem has also well-developed math intelligence, the student feels confident and their anxiety decrease. In addition to motivate students, some of these activities foster their self–esteem in the classroom because they feel strong and relaxed. We considered spatial intelligence, as the most important to solve this activity, so we divided them into two groups depending on their spatial intelligence level.



We have observed, at the beginning, "Group 1" read the first clue where it shown the necessity of buying a map. A few seconds later, they took into account they will need money, so they came back to the classroom and took their backpack. It showed their high capacity to solve problems by math intelligence. However, "Group 2" was advised about the necessity of buying something to get the goal, but they didn't realize until they needed it. Their planning capacity to solve problems in the future shows their lower math intelligence.

We also observed how they read the map brought about difficulties for "Group 2" because of their low-developed spatial intelligence. At the beginning, the leader was trying to guide the group to the second clue, but they were in the wrong direction so we tried to help them analyze the map. At this point student 2, who was not the leader, took control of the situation because of her higher spatial education and the others were enriched by it, took the right direction and solving the problem satisfactorily.

According to linguistic intelligence, each of them was able to read clues and messages to arrive at the next stage, so they could go ahead.

We had an expected result: "Group 1" was the first one to arrive to the meeting point with differences in the time, about 23 minutes. We could verify that the more well–developed and motivating activities were those based on the personal intelligences and mixed with others to achieve students' goal.

At the end of each task, all the students filled an evaluation sheet were most of them agreed that they had learned a lot and they had a lot of fun. When they were asked about the methodology, they said that the experiences and active tasks were useful to assimilate vocabulary and language use in the real life situations. Most of the time, they felt uncomfortable with listening and vocabulary, and the easiest for them was grammar. While they did this activity, they were asked to score from 1 to 4, where 1 is "without problems" and 4 "with several problems". The majority choose 2, so they had some problems, but just a few of them.

8. CONCLUSION

We applied the theory of multiple intelligences to a Spanish class to promote and motivate the learning of Spanish, in an amusing and effective way with a methodology adapted to their individual differences. Traditionally, most of the Chinese students studying Spanish at the University of Almería were not able to finish their Spanish course with satisfactory results. We considered motivation as one of the main determinants, together with the wrong teaching methodology which was not based on individual necessities. The results obtained were optimal, because students increased their motivation and achieved the individual goals proposed at the beginning of the course.

After applying our specific programme, their attendance and motivation was shown not only in their learning development, but also in their motivation, according to the evaluation sheet, they felt encouraged by the teaching methods and they preferred to learn with practical supports. Their evaluation was between 15 and 20 points from 20 most of the times, and students' comments were always positive. The use of multiple intelligences provided the students with the opportunity to express themselves through activities, displaying their skills, and compensating for the skills that were not so well developed. So, we conclude with the verification that multiple intelligences are in accordance with results, and it is necessary to use them if teachers want to teach more effectively.

References

Ballester P., C. Ferrandiz & M.D. Prieto (2002). "Inteligencias múltiples y talentos específicos". *Revista de Pedagogía*, 54(23), 283–296.

Castro, A. (2009). *Adquisición de segundas lenguas: una reflexión*. Instituto de Estudios en Educación. Lumen: 8.

Chomsky, N. (1957). *Syntactic structures*. The Hague: Mouton.

Clive, O., Latham–Koening, C., & J. Hudson, J. (1997). *New English file*. Oxford, UK : Oxford University Press.

Gardner, H. (1983). *Frames of mind. The theory of multiple intelligences*. L.: Fontana Press.

Hatch, E. (1997). *Discourse and language education*. Cambridge, UK : Cambridge University Press.

Krashen, S.D. (1982). *Principles and practice in second language acquisition*. Oxford, UK : Pergamon Press.

Lorenzo, G. & Reverdito. A.M. (2004). *Evaluación de actividades para la enseñanza de la química desde la perspectiva de las inteligencias múltiples*. Educación Química, 15(4), 366–371.

Morchío, M.J. (2004). *Enseñanza de una lengua extranjera desde las inteligencias múltiples*. Universidad Nacional de Córdoba. Programa Universitario de Adultos Mayores. 64 DOC. Córdoba.

Puchta, H. & Rinvolucri, M. (2005) *Multiple intelligences in EFL*. Innsbruck. Austria: Helbling Languages.

Pye, D., & Greenall, S. (1997). *Reward*. Oxford, UK : MacMillan Heinemann.

Stern, H. 1983. *Fundamental Concepts of Language Teaching*. Oxford, UK: Oxford University Press.