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Language Teaching

**Learning and Teaching EFL through Multiple Intelligences
Theory**

The case study : Third year foreign languages students at
Abdelbaki Ben Ziane Chouaai Secondary- School-Mostaganem

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Dedication

All praise to Allah the most Merciful and the Almighty for the completion of this work.

I would like to dedicate this work to my parents whom I love the most; Mom and Dad, I will be forever grateful to everything you have done and still do.

To my dear husband for his patience and for his encouragement to complete this work.

To my fabulous sisters

To my marvelous brothers

To all my family and relatives

To all my dear friends who inspire me.

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Abstract

According to Howard Gardner's theory of Multiple Intelligences, every human being possesses distinct and independent intelligences (Gardner, 1983). The aim of this study then is to raise awareness of different learning styles and teaching strategies and fostering an understanding of MI theory because it is very important for EFL teachers to be aware of and know their learners' potentials in order to respond to each student's MI profile and promote his/her strengths. This study examined the predominant intelligences and learning styles of Algerian secondary school students through the use of McKenzie's (1999) multiple intelligences inventory and its relationship to the frequency of selected teaching activities used in the EFL classroom which was achieved through teachers' interview at Abdelbaki Ben Ziane Chouaai Secondary- School. The data collected were analyzed to establish the degree of correlation between the multiple intelligence profiles of the EFL students and the preferred language learning activities used by the teacher. Therefore, the teaching techniques and strategies used by the EFL teachers were examined in light of the multiple intelligence profiles of the students with the aim of aiding teachers to have awareness about the learners' diverse intelligence, strengths and styles and realize to what extent these styles are addressed in the foreign language classrooms. In addition to , this study is an attempt to analyze how the MI theory and EFL can be combined in order help Algerian secondary school students to learn English in their preferred way maximizing the possibilities of success. This can contribute to find an effective way of teaching, developing more natural ways of learning and giving opportunities for everybody to succeed in his EFL teaching-learning process. For this reason it is necessary to demonstrate that Multiple Intelligences' proposals need teachers' attention. This research is mainly descriptive using the qualitative and quantitative approach to gather data from different sources through:

- MI survey
- Teachers' interviews

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List of Abbreviations

Abbreviations	Meaning
EFL	English as a Foreign Language
MI	Multiple Intelligences
LAD	Language Acquisition Device
LASS	Language Acquisition Support System
IQ	Intelligence Quotient
ZPD	Zone of the proximal development
CBA	Competency based approach
ESL	English as a Second Language
TEFL	Teaching English as a Foreign Language
MIT	, Multiple Intelligences Theory
IS	Intelligence System
CLL	Community Language Learning
CLT	Communicative Language Teaching
CHC	Cattell-Horn-Carroll theory
CE	Concrete experience
RO	Reflective observation
AC	Abstract conceptualization
AE	Active experimentation

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General Introduction

Introduction

English is the language of globalization. It is assigned a primordial role in science, technology, business and commerce. Increasing popularity of English as an international language calls for innovative approaches in English language teaching classroom. It is no longer appropriate to teach all students with a cookie-cutter formula.

Algeria is giving importance to foreign languages, particularly, English. In the recent years, there has been much discussion about teaching English in secondary school in Algeria. Since independence, many approaches have been applied to English language teaching in Algeria with the aim to evolve the level of the English learning among Algerian students. But, when it comes to real classroom practices of EFL teaching, the situation still has some complications that have to be reconsidered in EFL acquisition planning in order to come to more effective results because it is a teacher activity which aims to provide learners with better learning opportunities. In this context, learners have different needs, interests and learning styles. Sometimes, teachers struggle to meet these needs. This entails that teachers should adjust their instructional strategies so that they can cater for the varying needs of EFL learners. Howard Gardner's multiple intelligences theory could help teachers be aware of students' individual characteristics in order to cater for these needs. They can incorporate these intelligences in their lesson plans for practical use in the classroom.

Problem of The Study

Based on the researchers and teachers' experience in Teaching English as a Foreign Language (TEFL) field, they noticed that most students face difficulties in learning EFL in particular situations, while the same students were good in other activities in the class. Thus, this study comes to investigate implications of the MI theory in English language teaching and learning area.

Research Questions

The study attempted to answer the following questions:

1. What is the conventional meaning of intelligence?
2. What is meant by Multiple Intelligences theory and its main features?
3. What are students MI profiles ?
4. Are EFL teachers aware of MI theory?
5. What are the teachers' perceptions of MI Theory and its application in their classes?
6. Is there a correlation between EFL activities which appeal to the students and MI profiles?
In other words, Are the teachers' activities developed in the lessons in agreement with the intelligences students possess?
7. Which intelligences are the most emphasized in Algerian EFL classroom?

Research Hypotheses:

The study is based on the reasonable assumption that students have strengths and Weaknesses in various intelligences which are reflected in their different learning styles and strategies. Thus, based on their differing intelligence profiles, learners and teachers have different learning preferences. Due to the novelty of MI theory, as well as the historical and cultural implications of the teaching context, it is probable that teachers and learners are not aware of the implications of the theory for EFL teaching and learning. Therefore, it is likely that activities which cater to the various intelligences are not consciously addressed in the EFL classroom. As a result, some intelligences are probably more frequently exploited, while others are neglected. In addition to, these activities in class may or may not improve students 'four language skills .The study is based on a sample of Algerian secondary school students and their respective teachers which attempt to confirm or falsify these hypotheses.

Purpose of the Study

English is increasingly being recognized internationally as a key bridge across many borders in communication for economic, social and technological purposes, so the worldwide demand for learning English as an international language have been growing . During the last three decades, Multiple Intelligences Theory (MIT), proposed by Gardner (1983), has drawn considerable attention by the researchers which has been applied in many language classrooms.. The general purpose of this study then is to provide overview knowledge about the Multiple Intelligences theory in order to raise learners and teachers awareness about the theory and to demonstrate its application on English Foreign Language classes to reach better results. . Moreover, this work seeks to show the impact of this theory on personal and professional lives of individuals in general and students in particular through skills of MI theory. In fact, this general purpose can be categorized into some specific aims presented as follows:

- To identify the students' profiles
- To find out teachers' overall perceptions regarding the MI Theory and its applications in their classes
- To show teachers how to identify and incorporate Multiple Intelligences Theory in EFL class
- To provide support for Algerians teachers and educational authorities as they develop and implement innovative instructional strategies aligned with the Multiple Intelligences Theory.
- To use Multiple Intelligences Theory as a guide to develop classroom activities that address various ways of learning
- To use MI theory as a tool to help learners identify and better understand their own strengths and learning preferences.

Significance of the study and Motivation:

Recently, many educational researchers and teachers have eagerly embraced the value of teaching and learning through multiple intelligences (Collins, 1998), and there has been much anecdotal evidence to support Multiple Intelligences (MI) theory in practice (Gardner,

1999); however, few formal studies have been undertaken. However, it is important for EFL teachers to recognize how and why the theory works or cannot work in different contexts.

The present classroom research can fill the gap between theory and practice, and help language teachers understand how and why an application of MI theory may or may not support learning in an EFL classroom. Relevant implications and suggestions drawn from the research findings can be used for future improvement and application of MI theory in EFL contexts. In addition to, the current study is expected to contribute to help the Algerian Ministry of Education improve outcomes of the educational process and help curriculum planners take the MI theory into accounts while designing English language curricula in Algeria, also familiarizing EFL teachers with implications of the MI theory in the class by giving recommendations for teachers, students, textbook writers, curriculum developers, and syllabus designers.

Chapter One: Multiple Intelligences Theory and English language proficiency

Introduction

English Language Teaching has been influenced by different learning theories throughout the history and the MI theory has not been the exception. Traditionally learners are taught as if they are all the same without any regard to their unique learning needs or differing learning profiles. While Gardner's theory is considered as a candle for a new conceptualization about intelligence and academic abilities, it is far from achieving a widespread popularity in the traditional language classroom. According to different studies, the MI theory and teaching EFL are two factors that work really well together because the MI approach offers an integral way of teaching to all kinds of learners; therefore it allows students to multiply chances of success, understanding and retaining information. This study aims to investigate implications the MI theory in English language teaching and learning area within Algerian context. Accordingly, this chapter is divided into three parts. The first is part is concerned with learning theories , the second part discussed The Development of Foreign Language Teaching Approaches and Methods .The third part discussed the definition of intelligence, IQ test and intelligence, multiple intelligences theory, the types of intelligences ,MI theory and learning styles, MI theory and education.

1. Part One : Learning Theories

Theories on how people learn are numerous and varied. Some are complementary and others deny the validity of all that preceded and claim their primacy

1.1 Definitions of Learning

People agree that learning is important, but they hold different views on the causes, processes, and consequences of learning. There is no one definition of learning that is universally accepted by theorists, researchers, and practitioners (Shuell, 1986). Although people disagree about the precise nature of learning, the following are different definitions of learning.

➤ *Cambridge Advanced Learner's Dictionary* defines the word 'learn' as:

- To get knowledge or skill in a new subject or activity.

- To make yourself remember a piece of writing by reading it or repeating it many times.
 - To start to understand that you must change the way you behave.
 - To be told facts or information that you did not know.
- *Merriam-Webster Online Dictionary* defines learn as “to gain knowledge or understanding of a skill by study, instruction, or experience.
- According to Gow and Kember (1993), the following points subsume the majority of approaches to learning:
- A quantitative increase in knowledge.
 - Memorization.
 - The acquisition of facts and procedures which can be retained and / or used in practice the abstraction of meaning.
 - An interpretive process aimed at the understanding of reality.
- *The website (Feb 2016)* gives a variety of definitions which merit being included in this work for, we are sure, they provide us with rich information necessary to understand this ‘miracle’ word. Among these definitions:
- Learning is eruditeness: profound scholarly knowledge.
 - Learning is a change in neural function as a consequence of experience.
 - Learning is the increase in the amount of response rules and concepts in the memory of an IS (Intelligence System).
 - A relatively permanent change in cognition, resulting from experience and directly influencing behavior .
 - Learning is an increase in the capability for effective action. Individual, team, and organizational learning can all be measured by the outcomes that result from effective action.
 - Gaining knowledge or skills, or developing a behavior, through study, instruction, or experience.

1.2 Theories of Learning

The way a foreign language is learned has been influenced by a whole range of theories, ranging from philosophical beliefs, speculations, to scientific studies.

1.2.1 Behaviorism

The behaviorist approach assumes that it is not possible to describe precisely what occurs within humans when they learn. Internal processes remain hidden inside a black box and therefore cannot be explored objectively. That is why in behaviorism one must orient using observable behavior, which can be externally influenced by means of conditioning. Learning can be directed by means of rewards and punishments. Accordingly, instrumental learning is an expression of the behaviorist approach. Positive and negative reinforcement (reward), punishment and cessation are distinguished as entities here. This form of behaviorist learning is based on the theory of operant conditioning postulated by Thorndike (1898) and Skinner (1938, 1953, 1969). In behaviorism, the teacher assumes an authoritative role (Baumgartner & Payr, 1994). For example, the teacher decides what should be learned and determines the time structure of the instruction. In this process, the learner's task is largely limited to the passive reception of the materials presented (Blumenstengel, 1998; Reinmann-Rothmeier, 2003). Down to the present day, the behaviorist learning approach serves as the theoretical basis for certain e-learning methods such as drill and practice programs. These methods are used for ongoing testing of acquired knowledge; correct answers are reflected in the scoring and sometimes a reward is given; the program is repeated if the number of mistakes is too high; the course is sequentially structured.

1.2.2 Cognitivism

In contrast to behaviorism, cognitivist approaches attempt to infer the internal processes that take place in learning. They attempt to penetrate the black box that remains closed to behaviorism. Accordingly, in cognitivism the learning process itself - rather than just the results - is observed. This process is characterized by an active processing of incoming information by the learner. Learning is a result of comprehension (Kuhlmann & Sauter, 2008). In teaching and learning situations, one therefore looks for general rules that make it possible

for learners to solve problems. In practice, the teachers observe the learners and give assistance at the required points of the learning process; teachers can be said to have the role of a tutor (Baumgartner and Payr, 1994). A specification of

cognitivist approaches is given in Wittrock's model of generative learning (1974a). It relates to the cognitive linking of new learning content with pre-existing knowledge, which affects the perception and interpretation of the new knowledge. The model is based on the core assumption that learners actively shape the learning process by striving to generate meaningful knowledge from the information received from their environment: „[...] although a student may not understand sentences spoken to him by a teacher, it is highly likely that a student understands sentences that he generates himself“ (Wittrock, 1974b, p. 182). Teaching therefore becomes a process leading the learner to construct meaning and plans of action (Wittrock, 1991).

1.2.3 Constructivism

We understand constructivism as a sub-field of cognitivism. After all, the two fields share a very similar point of departure: both approaches are concerned with the processing of information, which in behaviorism remains hidden inside the black box. When looking at this process, however, constructivism particularly emphasizes individual perception, individual interpretation and individual construction. According to Heinz von Foerster (1984), the “reality” as being perceived from an individual, is a personal construct. There exists no objective reality. In the constructivist paradigm, learning is building knowledge based on individual, experience based building blocks. Continued learning is an ongoing re-construction process. within constructivism there are two schools of thought: -*Social constructivism*: it is based on Lev Vygotsky's theories and emphasizes both social and cultural learning contexts. According to Vygotsky, learning is a social and cooperative activity where the teacher acts as facilitator and the student is responsible for constructing his own understanding in his own mind. This theory places the teacher in an active role with the students developing their mental abilities through a discovery process.

-*Cognitive constructivism*: this theory involves a holistic approach .It emphasizes research and spontaneity. It fosters classrooms with authentic opportunities that challenge students. Today,

Constructivist teaching is gaining much efficiency thanks to the recent research about the brain and how learning occurs.

2 Part Two: The Development of Foreign Language Teaching Approaches and Methods

For many centuries, the goal of the foreign language teaching profession has been characterized by a search for ideal ways of teaching language (Kelly, 1976). It has been believed that adoption of an effective teaching method will bring dramatic improvements in language learning. As a result, many innovations have been conducted to develop more effective and theoretically sound language teaching methods. Over the past 100 years, foreign language teaching has gone through many changes in its approaches and methods starting from :

2.1 The Grammar-Translation Method

The Grammar-Translation Method was originally used to teach Latin. Five hundred years ago, Latin was the most important foreign language in education, commerce, religion and government. The method had dominated foreign/second language teaching from the 1840s to the 1940s in Europe and America, and it has continued to be widely practiced with modified forms in many countries around the world today (Richards and Rodgers, 2001). With no or little emphasis on helping learners develop oral skills, the Grammar-Translation Method, congruent with the view of mental-discipline theory, was primarily used to train the powers of the mind as well as benefit intellectual development by reading literary texts with the assistance of extensive analysis of the target language grammar, and of translation exercises (Hadley, 1993). Generally speaking, memorization of bilingual vocabulary lists, the deductive learning of grammatical rules, and accurate translation from the target language into the mother tongue, are the principal activities in the Grammar-Translation classroom. The method is completely teacher-centered and teachers could use their native tongue as the medium during the instruction for directions and explanations (Hadley, 1993; Knight,2001).

2.2 The Direct Method

In the late 19th century, with the increasing demands for acquiring oral proficiency in modern foreign languages for practical purposes, and the gradual disagreement with the Grammar-Translation Method because of its failure to help learners use the foreign language they had been studying, the beliefs that learning foreign languages should be like the way children learn their first language in a natural context became known as the Direct Method (Richards and Rodgers, 2001). Advocators of the Direct Method claimed that language could be learned through frequent and large amount of target language input with appropriate actions and realia when the mother tongue was avoided. During the process of implementing the Direct Method, students are encouraged to acquire rules of grammar inductively through imitating, repeating, speaking and reading the structured dialogues. The teacher is thought to be the model for the learner to imitate, and a native-like proficiency in the target language is expected from learners (Celce-Murcia, 1991a).

2.3 The Audiolingual Method

The Audiolingual Method (or Audiolingualism) took much from the Direct Method but it added some features from structural linguistics and behavioral psychology (Richards and Rodgers, 2001). Influenced by the view proposed by the structural linguists of the 1940s and 1950s, proponents of Audiolingualism maintained that language is speech, which is a highly structured system governed by elements, including phonemes, morphemes, words, structures and sentence types. Learning language is therefore assumed to involve mastering these elements of the language and the rules by which these elements are combined (Richards and Rodgers, 2001). The other important link underlying the Audiolingual Method is behaviorist psychology. The learning model of Behaviorism (Skinner, 1957) saw language as a behavioral skill where learners receive a stimulus (imitate a drill), respond (practice by providing correct utterances) and get responses (teacher gives feedback for reinforcement). That is, like all learning, language learning is seen as a process of habit formation through practice and reinforcement in the target rule-governed linguistic system (Lightbown and Spada, 1999).

2.4 The Cognitive Code Approach

The decline of Audiolingualism resulted from the emergence of Chomsky's theory of transformational grammar (Chomsky, 1957, 1965 and 1968), which had revolutionized American linguistics and switched linguists' and psychologists' attention from surface forms to the 'deep structure' of language with his emphasis on the innate properties people process when using or learning a language. Chomsky (1968) proposed that the fundamental properties of language come from innate aspects of the mind and from how humans deal with experience through language. Thus, sentences are not learned by imitation and repetition but generated from the learner's underlying knowledge of grammar rules (Richards and Rodgers, 2001). Since the 1960s, the Cognitive Code Approach, interpreted as a "modified, up-to-date grammar translation theory" (Carroll, 1965: 282). Instead of simply habit formation, language learning was considered as a process, which involves the learner's active participation in the mental process of using and learning language, particularly in the learning of grammar rules.

2.5 Humanistic Methods

With the paradigm shift, the quest for alternatives to language teaching had taken several directions since the earlier 1970s (Richards and Rodgers, 2001). One of the directions was the emergence of humanistic methods, which were largely informed by learning theory and partly influenced by the movements in psychotherapy (Hadley, 1993). Reacting to the general lack of individual or affective consideration in either Audiolingualism or Cognitive Code, these humanistic methods argued the importance of the effective development of learners in language learning. They saw each learner as a whole person and believed the language classroom was more than a place for knowledge transfer. These humanistic methods include the Silent Way (Gattegno, 1972 and 1976), Community Language Learning (Curran, 1972 and 1976) and Suggestopedia (Lozanov, 1978).

2.5.1 The Silent Way : The Silent Way was proposed by Caleb Gattegno (1972 and 1976) with the basic tenet that the mind is an active agent capable of constructing its own criteria for learning, and the teacher should help students take more responsibility for their learning by means of discovery and creation. Instead of imitation and drills, Silent Way teachers keep silent much of the time and students are allowed to learn from trial and error and then are able to make their own

corrections. The Silent Way is famous for its unique teaching materials such as Cuisenaire rods (colored wooden rods of different lengths), Fidel charts (color-coded pronunciation charts) and vocabulary charts. Teachers use rods and charts to elicit students' responses and students are expected to make their own generalizations from the language presented to them and then self-assess their own output. The philosophy behind the method, focusing on the learner's independence, autonomy and responsibility, has aroused teachers' notice to learners' problem-solving and self-study abilities, which are one of the key factors in achieving successful language learning.

- 2.5.2 **Community Language Learning:** Community Language Learning (CLL) was developed by Charles Curran (1972 and 1976). CLL emphasizes the significance of the affective domain in promoting cognitive learning. Moreover, CLL rejects the behavioral view in which learners are passive and their participation is limited, like 'animal learning' and argues each learner needs to be understood and helped in the process of fulfilling personal values and goals. This can be best done in a community with others attempting to achieve the same goal. In order to help language learners experience Whole-person Learning, humanistic techniques are used in CLL (Richards and Rodgers, 2001; Stevick, 1990). In the CLL classroom, students are like 'clients' seated in a circle with the teacher, as a 'knower' or 'counselor' on the outside of the circle. The common procedure is for students to determine the theme of each lesson and generate their conversation. When one of the students wishes to share something with the group and says it in their native tongue (e.g. Arabic), the teacher provides a translation back into the target language (e.g. English). The student then repeats the teacher's translation and continues the conversation. If possible, the conversation is taped for later discussion or analysis. The job of the CLL teacher is to create a supportive atmosphere within the classroom as well as foster trusting relations and positive interactions among learners in exchanging information and sharing feelings, which is believed to solve the affective crisis in language learning (Knight, 2001).
- 2.5.3 **Suggestopedia:** Suggestopedia was introduced by Georgi Lozanov (1978). This method is based on the idea that the mind has great potential and can retain information by the power of suggestion. This teaching method uses relaxation as a means of retaining new knowledge. In their initial lessons learners receive large quantities of information in the new language. The text is translated and then read

aloud with classical music in the background. The scope is to supply an atmosphere of total relaxation where understanding is purely accidental and subliminal. Using large quantities of linguistic material introduces the idea that language understanding is easy and natural.

2.6 Communicative Language Teaching

A recent approach is the Communicative Approach, defined by Jeremy Harmer as “a concentration on language as a means of communication focused on communicative activities”. Its aims are overtly communicative and great emphasis is placed on training the students to use language for communication. As an approach, Communicative Language Teaching (CLT) has been seen as a response to the Audiolingual Method and it emphasizes interaction as both the means and the ultimate goal of learning a language. The goal of the Communicative Approach is to have one's students become communicatively competent. Communicative competence involves being able to use the language appropriate to a given social context. To do this, students need knowledge the speaker has a choice not only about what to say, but also how to say it. CLT teachers have used some materials such as realia, authentic materials (maps, ads, newspapers, pictures, charts) and textbooks, which were designed for a CLT class. Variety in materials is encouraged in CLT and “materials thus have the primary role of promoting communicative language use” (Richards & Rodgers, 2001, p.168).

2.7 The Competency Based Approach

Recently, the Algerian Ministry of Education has adopted a new approach of ELT in Algerian secondary schools which is the Competency-Based Approach or what is simply referred as C.B.A. This new approach tends to make the learning skills related to the outside environment. It tends to put students in real world tasks. Thus, the syllabus designer's main role is to help students, via teachers, to transfer the acquired knowledge in classroom into the real world beyond classroom doors. It has been developed and applied in the United States in 1980. Because of its success; it has been adopted in many ESL program worldwide schools. In Algeria it has been introduced by the Algerian Ministry of Education in 2005 and has been adopted in the new course books and program of English to develop intellectual competencies among the learner. As it has already been mentioned, a key concept of this approach is competency. Under this approach, learning is mainly achieved through acquiring

competencies that would develop how to act among the learners by means of different functions and skills. Being a qualified language learner means simply to be a competent language user in real life situations. This involves the acquisition of learning strategies that enable learners to share and exchange knowledge with others and knows how to co-operate with them.

Besides the methods and approaches described above some others can be considered in promoting changes in language teaching: the Natural Approach, Cooperative Language Learning, Content-Based Instruction, and Task-Based Language Teaching. Each of them contributed in different manners.

3. Part Three: Intelligence

Humans are uniquely characterized by the possession of a brain that is perfectly able of thinking and producing rational decisions and judgments. So, human beings are dignified with intelligence which is subjected to a constant progress and improvement.

3.1 . Definitions of Intelligence

What is intelligence?

- *According to Webster's New World Dictionary*, intelligence is “the ability to learn or understand from experience, to acquire and retain knowledge, to respond quickly and successfully to a new situation, to use the faculty of reason in solving problems, and directing conduct effectively” (Neufeldt, 1988).
- *Binet and Simon* 1916(cited in, Göğebakan 2003.p, 2) stated that intelligence could be identified as judgment by which an individual must be adjusted with the circumstances of a particular situation. So, whether the person is stupid or not only good judgment would make a significant difference.
- *Wechsler*1998(cited in, Göğebakan 2003.p, 2) talked about intelligence by saying that it is "the global capacity to act purposefully, to think rationally, and to deal effectively with his environment" which means that intelligence is not a one entity but a combination of several entities.
- *Guilford* 1967 (cited in, Göğebakan 2003.p, 3) stated that “intelligence is learning ability and that it is a universal ability, regardless of the thing being learned, has definitely been exploded by a number of experiments”.

- **Sternberg** (1997) referred to environmental context, noting that “this context has physical, biological, and cultural aspects which may interact” (p.1031).
- **Gardner** (1983, p. 39) defines intelligence as the “ability to solve problems, or create products, that are valued within one or more cultural settings.” Gardner subsequently redefined intelligence as the “biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture” (Gardner, 1999, p. 33-34). This change in the definition broadens the scope of “intelligence” to include both biological and psychological factors. Hatch and Gardner (1996) further explain that intelligence is displayed, discovered, and developed within the context of meaningful, culturally significant activities.

3.2 Different Views on the Nature of Intelligence

Philosophers and psychologists have been trying to formulate theories to explain intelligence and the function of the brain for centuries. In ancient times the Egyptians had placed the ability to think in the heart and judgment in the head or kidneys. Aristotle thought the heart controlled the body, while Descartes felt the source of the soul was in the pineal gland (Gardner, 1993a). Knowledge of brain function has come a long way since those times. In the early 19th century, phrenology was made popular by Franz Joseph Gall (Gardner, 1993a). This theory hypothesized that the shape and size of a person’s head determined their mental capacities. Gall was one of the first to identify the brain’s different functions such as memory, attention, language skills, and musical ability. Since that time, a variety of theories and approaches have come to light.

3.2.1 Psychometric Perspectives on Intelligence

The psychometric concepts of intelligence can be traced back to the work of Francis Galton in the late 19th century who believed that intelligence was inherited (Gardner, 1999, p.2) and he believed he could measure intelligence, so he developed formal IQ(Intelligence Quotient) tests. In 1906 the French psychologist Alfred Binet developed the most well known IQ test in the world. Binet wanted to test French children in order to predict their academic potential and identify children with learning disabilities. This way, those children could be helped in order to succeed in school. The IQ test was modified to best suit American society in the 1920s and 1930s (Gardner, 1999, p.12) and it became known as the Stanford-Binet IQ

test. The IQ test is administered especially in primary school to predict success in academic studies. Since the IQ tests were being largely used in the USA for several purposes, some restrictions were made to the use of IQ tests in schools. American school psychologists only administer the IQ tests when there is a need to identify either if a child has some disability in learning or if he/she is gifted (Gardner, 1999, p. 18). . However, Psychometric Approach focused on two learning methods, linguistic and logical-mathematical. It measures the learners' performance by using standardized tests and then it compares one student to another. It is widely used in education. However, there is a major fear that it would be the only one used when measuring the students' performance and achievement because it is limited to only two methods. Some examples of psychometric measurement instruments are: Binet's test ,Stanford-Binet scale, Wechsler scales.

3.2.2 Developmental Progressions:

In this approach many psychologists' works are mentioned:, Piaget ,Vygotsky and Bruner .

- ***Piaget's personal development theory*** : **Piaget** was the pioneer in understanding the child development and how knowledge developed in human beings. His theory's name is genetic epistemology which is based on four cognitive structures or developmental stages: *sensori-motor, pre-operations, concrete operations and formal operations*; they differ from one person to another. In addition to this, every stage had many detailed forms of structure.
- ***Vygotsky's socio-cultural theory*** :It is based on the idea that social interaction had an important role in the development of cognition. Vygotsky's theory had another aspect and it was the idea that the potential for cognitive development was restricted with a certain time span that he named as *zone of proximal development*(**ZPD**) . Complete development during this period depended on full social interaction. A child could develop a range of skills with adult guidance or pair work and this with adult the ones that he could achieve by himself.
- According to ***Bruner's theory***, learners depend on their present and past knowledge to learn new concepts. They select and manipulate information, make decision based on cognitive structure. The latter allows learners to go deeper to infer meaning. Teachers are supposed to push students to extract principles by themselves and engage them as

much as possible. The teacher must accommodate the information according to the learner's level.

3.2.3 Psychobiological Approach:

Development of intelligence is explained through the focus on brain and ecology. According to Cecil 1990 (cited in, Göğebakan. 2003) knowledge and aptitude were whole and with body of intelligence one could find environmental, biological, metacognitive and motivational variables. Ceci (cited in, Göğebakan. 2003) is against the concept of one intelligence. He viewed intelligence as having a biological basis, multi-cognitive, potential, and complete in terms of context and knowledge.

3.2.4 Spearman's two-factor theory:

It was developed in 1904 by an English Psychologist, Charles Spearman, who proposed that intellectual abilities were comprised of two factors : one general ability or common ability known as 'G' factor and the other a group of specific abilities known as 'S' factor. 'G' factor is universal inborn ability. Greater 'G' in an individual leads to greater success in life. 'S' factor is acquired from the environment. It varies from activity to activity in the same individual.

3.2.5 Thorndike's multifactor theory :

Thorndike believed that there was nothing like General Ability. Each mental activity requires an aggregate of different set of abilities. He distinguished the following four attributes of intelligence:

- (a)Level—refers to the level of difficulty of a task that can be solved.
- (b) Range—refers to a number of tasks at any given degree of difficulty.
- (c) Area—means the total number of situations at each level to which the individual is able to respond.
- (d) Speed—is the rapidity with which we can respond to the items

3.2.6 CHC (Cattell-Horn-Carroll) theory:

It is a theory of intelligence that is most used in IQ tests is the CHC (Cattell-Horn-Carroll) theory. The theory is based largely upon psychometric evidence—that is, factor-analytic studies that have sought to uncover sources of individual differences in performance on standardized tests of intelligence .The basic Idea of CHC theory is that there are three

strata of intelligence that are hierarchically related to each other. Carroll proposed a model of intelligence that focused on three basic areas including:

- **-Stratum I:** Narrow, specific abilities- This stratum includes many skills that are more defined and specific including skills such as spelling
- **Stratum 2:** Broad abilities- This stratum focuses on a more broad range of intelligence including short/long term memory, fluid intelligence (speed and accuracy), and crystallized intelligence (abundance of knowledge).
- **Stratum 3:** Single intelligence This is the most widely known/accepted model of intelligence. This stratum is at the top of the hierarchy and is most commonly seen as g. This strata is general intelligence. This model is a hierarchy of cognitive abilities. .

3.2.7 Sternberg's Triarchic Theory :

Sternberg proposed what he refers to as successful intelligence which is comprised of three different factors:

- *Analytical Intelligence*, which refers to problem-solving abilities.
- *Creative Intelligence*, which identifies aspect of intelligence, involves the ability to deal with new situations using past experiences and current skills .
- *Practical Intelligence*, which refers to the ability to adapt to a changing environment.

3.3 .Multiple Intelligences Theory:

After a survey of theories of human cognition from different perspectives such as neurology, biology, sociology, anthropology, arts, humanities and psychology, **Howard Gardner**, the Harvard professor and psychologist, was dissatisfied with the traditional definition of intelligence, which only captures a small portion of human capacities that are valued in the real world. He criticized the fact that educators and psychologists spend much time measuring students through IQ or standardized tests without really helping and educating them. After years of exploration and evidence collection, he convincingly argued for expanding the domains of intelligence to cover the wide range of capacities people have (Gardner, 1987). In 1983, his book “*Frames of Mind: The Theory of Multiple Intelligences*” was published and has caused a major paradigm shift in the thinking about what constitutes intelligence. Later on, the publication of two books, «*Multiple Intelligences: The Theory in*

Practice “(1993 a) and *Intelligence Reframed: “Multiple Intelligences for the 21 st Century”* (1999) have not only provided further explanation and clarification of the MI theory, but also proposed general guidance for applications of the MI theory to education and the wider world (Armstrong, 2000; Campbell et al., 1999; Lazear, 1999a and b; Martin, 2001).

3.3.1 Gardner’s View of Intelligence

Gardner doesn’t view intelligence as a singular construct nor as something static. Instead he believes intelligence is a process which can be developed throughout life. As a result, he has developed the Theory of Multiple Intelligences, which offers a radically different explanation of intelligence. Gardner’s view of intelligence differs because, unlike most theories, he does not focus only on problem solving. He doesn’t believe that intelligence can be measured by a set of short answers to questions nor that “...intelligence is a single faculty and that one is either ‘smart’ or ‘stupid’ across the board” (Gardner 1999: 34). Therefore, he defines intelligence as “a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture” (Gardner 1999: 33-34). This definition is unique because intelligence is defined as a potential, which may or may not be set into motion depending on the culture, context, individual and many other factors. Thus, the term intelligence is extended to encompass many different capacities and not a single faculty or construct. In addition, intelligence can be developed and is not something unprogressive and permanent which someone is either endowed with or lacks.

3.3.2 Gardner’s Criteria for Defining Intelligence

Gardner, unlike other psychologists, did not rely heavily on the instruments used by psychometric tests when he researched human intelligences. In the words of Gardner (1999): “I laid out a set of eight separate criteria. I combed the relevant scientific literature for evidence on the existence of many candidate faculties” (p.35). The eight criteria considered were based on: biological sciences, developmental psychology, logical analysis and traditional psychological research. The criteria for determining an intelligence are as follows (Gardner 1999: 36-38):

- **“The potential for brain isolation by brain damage”** (p.36): This criterion came from Gardner's work in the biological sciences, and operates on the assumption that a

specific “intelligence” can be isolated within the brain. For example, injury in the middle areas of the left hemisphere often impairs linguistic abilities, leaving musical, spatial, and/or interpersonal skills largely undamaged. On the other hand, a large lesion in the right hemisphere will affect musical and spatial skills, leaving linguistic abilities relatively intact. In other words, the fact that a particular injury may selectively destroy some abilities while sparing others suggests that the two abilities are perhaps autonomous.

- ***“A place in human evolutionary history and evolution plausibility”*** (p.36): This criterion also emerged from Gardner’s study in the biological sciences. From an evolutionary perspective, the intelligence has to have played a role in the development of our species and its ability to cope with the environment. For example, early hominids had to be able to navigate diverse terrains using spatial abilities.
- ***“An identifiable core operation or set of operations”*** (p. 37): This criteria emerged from logical analysis. Acknowledging the fact that specific intelligences operate in the context of the environment, Gardner (1999) argues that it is crucial to specify the functions that are central to the intelligence under consideration. For example, linguistic intelligence consists of core operations such as recognition and discrimination of phonemes, and command of syntax and acquisition of word meanings. In the area of musical intelligence, the core operations are pitch, rhythm, timbre, and harmony.
- ***“Susceptibility to encoding in a symbol system”*** (p. 37): This criterion also emerged from logical analysis. According to Gardner, (1999) symbol systems develop out of the need to accurately and systematically convey information that is culturally meaningful, rather than occurring naturally. Some examples of encoding include written and spoken language, mathematical systems, logical equations, maps, charts and drawings.
- ***“A distinct developmental history along with a definable set of expert end-state” performances”*** (p.38): This criterion is borrowed from developmental psychology. Each intelligence has its own developmental history- its time of arising in childhood, its time of peaking during one’s lifetime, and its time of gradual decline. For example, musical intelligence peaks early, while linguistic intelligence can peak very late.
- ***“The existence of idiot-savants, prodigies and other exceptional people”***(p. 39): This criterion is borrowed from the discipline of developmental psychology. Gardner

(1999) refers to these as accidents of nature that *allow* researchers to observe the nature of a particular intelligence in great contrast to average or impaired abilities. One example of this type of highlighted intelligence is the autistic person who excels at numerical calculations or musical performance.

- **“Support from experimental psychological tasks”** (p. 40): Gardner (1999) draws this criterion from psychological research. Gardner claims that psychologists have been able to develop tasks that specifically indicate which skills are related to one another and which are discrete. Observing subjects who are asked to carry out two activities simultaneously can help determine if those activities rely on the same mental capacities or different ones. For example, a person engaged in working a crossword puzzle is unlikely to be able to carry on a conversation effectively because both tasks demand the attention of linguistic intelligence, thus creating interference, whereas, the absence of this sort of competition allows a person to be able to walk and converse at the same time, suggesting that two different skill sets are engaged (Gardner, 1999).
- **“Support from psychometric findings”** (p. 40): This criterion also emerged from psychological research. Psychometric findings rely on traditional standardized tests, and although Gardner (1999) proposed his theory in opposition to psychometrics, he recognizes the importance of acknowledging psychometric data. For example, Gardner concludes that a positive correlation between tasks that purportedly assess a particular intelligence and a weaker correlation between those that are claimed to assess another intelligence can be considered as lending support to his MI theory.

3.3.3 Types of Eight Intelligences

The Multiple Intelligences Theory is a cognitive model that seeks to describe how individuals use their intelligences to solve problems and fashion products” (Armstrong 2000: 12). Therefore, each intelligence is responsible for a segment of human functioning in the environment. The original seven intelligences established by Gardner are (1999: 41): linguistic, logical-mathematical, spatial, interpersonal, intrapersonal, kinesthetic and musical. Recently, three new candidate intelligences have been considered by Gardner (1999: 47): the naturalist, spiritual and existential intelligences. Finally, Gardner’s (1999) present classification which was matched against the eight criteria consists of eight intelligences.

3.3.3.1 Verbal/Linguistic Intelligence: is the capacity to work with words orally or in writing. This intelligence enables people to manipulate the syntax, phonology, semantics and pragmatics of a language. Consequently, it is a crucial intelligence for language learners. People who have a strong verbal/linguistic intelligence usually have a good vocabulary. They like to read books and always seem to be absorbed in books (Gardner1993; Chapman 1996).They often choose careers as language teachers, interpreters, editors, linguist, radio or television announcers, reporters, librarians and editors. If students want to develop their linguistic intelligences while focusing on language learning, they can consider doing the following activities:

- Browse the library or bookstores regularly
- Read the books just for the fun of it. Read the newspaper every day, even for just a few minutes, or read joke books and practice telling the jokes to friends
- Keep a diary
- Play word game
- Memorize a favorite song, poem, or story
- Get together with friends and take turns to read the parts of a play.

3.3.3.2 Logical/Mathematical: the ability to use numbers effectively and reason well. This includes such skills as understanding the basic properties of numbers and principles of cause and effect, as well as the ability to predict, using simple machines. People with logical-mathematical intelligence often choose careers as scientists, mathematicians, computer analysts, economists, accountants, statisticians, science teachers and so on. If students want to develop their logical-mathematical intelligence, with particular focus on language learning, they can consider doing the following:

- Watch television shows about science
- Read about famous scientists and their discoveries, or detective stories
- Play logical-mathematical games like Clue with friends and family
- Visit the local science museum
- Carry and use technology such as calculators and games
- Sequence events into story line

3.3.3.3. Spatial/Visual intelligence : involves “the sensitivity to form, space, color, line and shape” (Christison, 1996, p.11). It also involves visualizing things either mentally or graphically. The ability to solve problems related to the notion of space such as using a map to locate a place in a city or drawing a floor plan are examples of Spatial/Visual intelligence. People who are strong in spatial/visual intelligence are architects, navigators, painters, sculptors, and graphic artists. If students want to develop their spatial intelligences while focusing on language learning, they can consider doing the following activities:

- Work on Jigsaw puzzles involving language.
- Take a filmmaking class
- Cut out favorite pictures from magazines and make a collage
- Pay close attention to the television advertisement, films, and videos they see
- Create a story by sketching a series of pictures or by using magazine pictures

3.3.3.4 Musical /Rhythmic intelligence: is the ability to express emotions and feelings through music showing “sensitivity to rhythm, pitch, and melody” (Christison, 1996, p. 11). People who are musically intelligent can usually hear music in their heads and learn songs quickly. They like to play some musical instrument or spend hours listening to music on the radio or CDs. People with a strong musical intelligence often choose careers as musicians, music therapists, songwriters, music teachers, piano tuners, studio engineers, disc jockeys and so on. If students want to develop their musical intelligences within language learning, they can consider doing the following activities:

- Go to concerts with friends and family
- Listen to different kinds of music : classical, pop , Jazz, rock ...
- Make a tape or CD of their favorite songs
- Keep a list of all the music they hear during the day
- Sing English songs in the shower
- Turn some of the learning into a song or rhythmic chant

3.3.3.5 Bodily/Kinesthetic Intelligence: *is* the ability to solve problems using the body and being able to express thoughts, ideas, and emotions through movements and gestures. “Sample skills are coordination, flexibility, speed, and balance” (Christison, 1996, p.

11). Activities such as riding a bike, typing, cooking, building things, driving a car, miming, dancing and playing sports are examples of using this intelligence. People with bodily-kinesthetic intelligence often choose careers as athletes, dancers, actors, models, mimes and so on. If students want to develop their bodily-kinesthetic intelligences with particular focus on language learning, they can consider doing the following activities.

- Put on music with songs and make up their own creative dance to reflect words
- Enroll in a dance, drama or pottery class
- Learn cooking, gardening, woodworking, or car mechanics
- Mime or act out a story

3.3.3.6 Interpersonal Intelligence: is the ability to relate and understand others. The learners try to see things from other people's point of view in order to understand how they think and feel. They often have an extraordinary ability to sense feelings, intentions and motivations. They are great organizers, although they sometimes resort to manipulation. Generally they try to maintain peace in group settings and encourage co-operation. They use both verbal (e.g. speaking) and non-verbal language (e.g. eye contact, body language) to open communication channels with others. People with interpersonal intelligence usually choose careers as salespeople, lawyers, politicians, business executives, travel agents, social workers, psychologists, religious leaders and school principals. If students want to strengthen their interpersonal intelligences with particular focus on language learning, they can consider doing the following activities:

- Join some clubs at school, or in their neighborhood
- Have a party and invite one or two people they do not know very well
- Be a people watcher. Go to a busy place where English is likely to be used and spend time watching people interact with one another
- Make a point of meeting and talking English with one new person every month or so
- Interact with at least one person (out of class) in English each day

3.3.3.7 Intrapersonal intelligence: “involves the capacity to understand oneself, to have an effective working model of oneself – including one’s own desires, fears, and capacities and to use such information effectively in regulating one’s own life” (Gardner, 1999,p.43).This intelligence involves self-reflection, self-awareness, and

self-consciousness . People with this kind of intelligence often become therapists, religious leaders , Researchers, theorists and philosophers. If students want to develop their interpersonal intelligences with particular focus on language learning, they can consider doing the following activities:

- Think about their goals and their hopes for the future
- Engage in activities that make them feel more confident about themselves
- Record their thoughts and feelings in a daily journal
- Keep a special “dream journal ”
- Sit in a comfortable chair for 20 minutes and just daydream about the places they would like to go and people they would like to meet
- List strengths of their language learning and areas in which they need assistance

Gardner (1999) considers the interpersonal and intrapersonal intelligences as “the personal intelligences” and he states these intelligences are the most controversial ones (p.43).

3.3.3.8 Naturalist Intelligence: Naturalist intelligence is the most recent intelligence validated by Gardner (1999). It is ability to recognize and classify numerous species of flora and fauna in the environment defines this intelligence. Farmers, hunters, zookeepers, gardeners, cooks, veterinarians, nature guides, and forest rangers are strong in this intelligence because they have a sense of wonder, awe, and respect for the natural world. They have the abilities or talents to analyze natural situations, learn from living things or work in natural settings.

3.3.3.9 Spiritual/ Existential Intelligence: Even though Gardner does not confirm existential intelligence as the ninth intelligence, he has discussed it in his book *Intelligence Reframed* (1999, pp.60-66). Gardner (1999) states that “existential intelligence scores reasonably well on the eight criteria”. It refers to the ability to be sensitive to, or have the capacity for, conceptualizing or tackling deeper or larger questions about human existence, such as the meaning of life, why are we born, why do we die, what is consciousness, or how did we get here. It concerns one's relationship with the universe or God, depending on one's personal philosophy.

3.2.4 Learning Styles and Multiple Intelligences Theory

Increased focus on the learner has highlighted the learner's inner capacities which have important implications for learning and teaching and touch a whole range of psychological, contextual, and methodological issues. Cognitive psychology research and its revelations concerning the human mind have pointed out that learners vary in their approaches to learning new material. How an individual perceives the environment and reacts to it will depend on his or her learning style. "Learning styles are internally based characteristics, often not perceived or consciously used by learners, for the intake and comprehension of new information" (Reid 1998: ix). Richards and Rogers (1996) suggest that predispositions to specific approaches to learning are largely dependent on personality types.

Many educators have considered multiple intelligences as another model of learning styles (Berman, 1998; Reid, 1998). Nevertheless, Gardner has tried to distinguish the difference between intelligence and a learning style. He said: "The concept of style designates a general approach that an individual can apply equally to an indefinite range of content. In contrast, an intelligence is a capacity, with its component computational processes, that is geared to a specific content in the world". (Gardner, 1999: 84). According to Kolb's (1984) learning styles inventory, a particular learning style can be applied to various subjects and content but intelligences are more content specific.

- ***Kolb's experiential models*** based on personal learning experience as the foundation for learning and emphasis is placed on the significance of critical reflection in learning. By contrast, in education, teachers are concerned with presenting information and the student's need to reflect upon the information is often neglected, and experience as a critical part of learning is ignored. Therefore there is a need to integrate the learner's personal experience in the language classroom and to create opportunities for the learner to reflect on the learning experience. The experiential learning model is viewed as a four stage cycle. The first stage of the cycle is a concrete experience (CE) which is followed by the stage of reflective observation (RO). During this stage the learner reflects on the experience and tries to describe what happened. After that, in the following stage of abstract conceptualization (AC) the learner asks questions and tries to analyze the experience by comparing it with previous ones. In this stage logic and ideas are used to develop theories and enhance

understanding of what happened. By hypothesizing, making generalizations, and drawing conclusions, the learner will try to decide on intelligent actions. As a result, the conceptualizing stage will be followed by an action phase of active experimentation (AE). Therefore, in the fourth stage, the hypothesis will be tried out which will lead to a new concrete experience (CE).

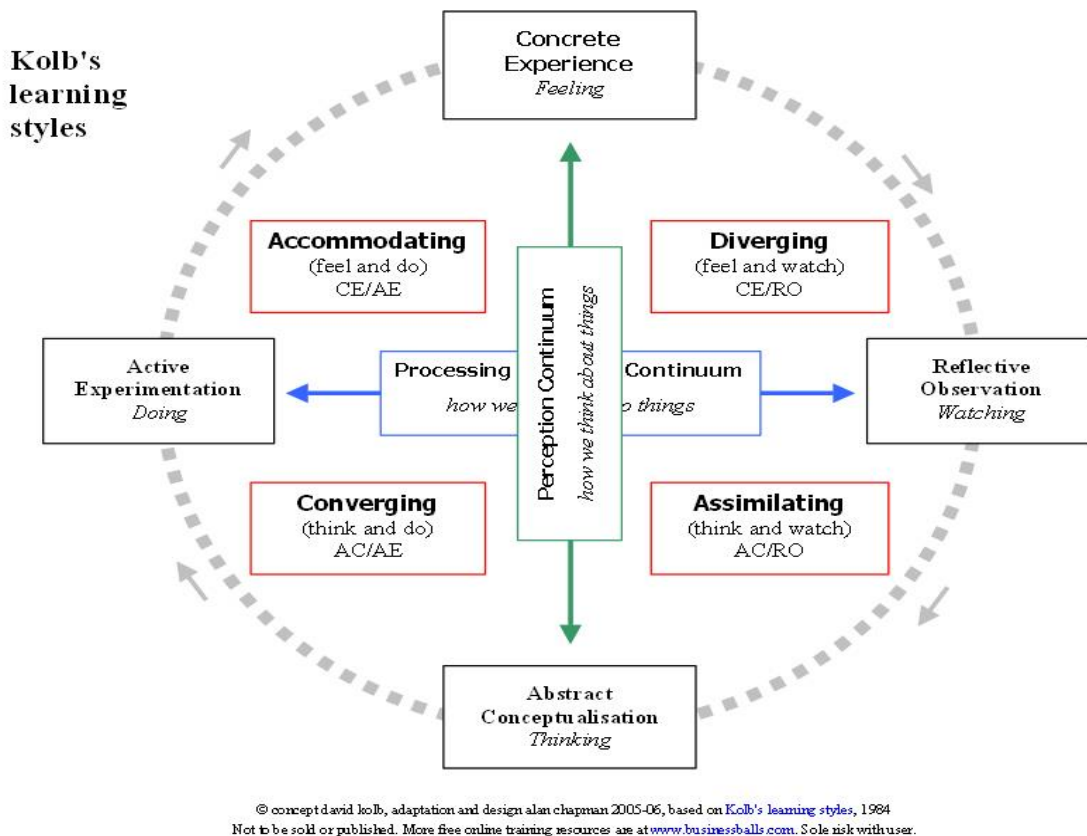


Figure 1.1: Kolb's learning styles

(<http://www.businessballs.com/kolblearningstyles.htm>)

Recently, Silver and colleagues (Silver et al., 2000) have attempted to clarify the difference between MI and learning styles, their model consists of four styles: 1) *the Mastery style*; 2) *the Understanding style*; 3) *the Self-Expressive style*; and 4) *the Interpersonal style*. According to Silver et al. (1997), "learning styles are not fixed throughout life, but develop as a person learns and grows" (p.23). This is similar to MI since intelligence is not static and it can be improved throughout the years. Silver et al. (1997) claim that learning styles and multiple intelligences share some similarities. They claim that learning styles and MI should be applied in combination since they believe that each theory has some limitations. If both

theories are integrated, their limitations will be minimized and their strengths will be enhanced. According to Silver et al. (1997), “learning styles emphasize the different ways people think and feel as they solve problems, create products, and interact” (p. 22). On the other hand, MI focuses on the way human potential is shaped by different disciplines and cultures (p.22). “Learning styles are concerned with differences in the process of learning, whereas multiple intelligences center on the content and products of learning”, declare Silver et al (1997). Silver et al. (1997) combine each intelligence with the four styles mentioned above in order to explain how the integration of MI and learning styles provides better results. They have noted while learning styles focus on “the process of learning”, MI theory focuses on “the content and products of learning”.

3.2.5 The Application of MI Theory in EFL Classrooms

The MI Theory has important implications for English language teaching. Application of MI Theory in EFL classroom can be considered valuable for both teachers and students as well as for the curriculum design, instructional strategies, materials and textbooks used in language teaching and learning. A number of studies have been done to investigate the application of the theory in an English class.

One of the first attempts considering the application of MI Theory in foreign language teaching and learning belongs to Christison (1996). She proposes that MI theory offers EFL teachers a way to examine their best teaching practices and techniques in light of human differences and suggests two steps to be followed in understanding how MI theory applies to TEFL the first step is to identify the activities that we teachers frequently use in our lessons and to categorize them the second step is to track what we are doing in our lessons with multiple intelligences. In her paper, she emphasized the importance of applying the MI Theory in EFL classrooms in order to create an individualized learning setting and help the students with diverse abilities to develop their multiple intelligences. According to Christison (1996), the theory of MI gives EFL teachers opportunity to look at their teaching practices from individual differences perspective. Furthermore, instruction directed by the MI Theory can create learner-centered environment in which learners exhibit their strengths and potentials (Christison, 1996). Christison (1996) also suggests teachers identify and categorize activities in their classes, and presents four stages of how MI-based lesson can be reinforced: arouse the intelligence, improve and support it, organize lessons according to different

intelligence types and integrate intelligences into solving problems. Christison has written several articles about MI in EFL/ESL contexts. During last TESOL conference (March 2003), she exhibited her new book called “Multiple Intelligences and Language Learning: A Guidebook of Theory, Activities, Inventories, and Resources”. In her article, Christison (1998c) suggests that teachers identify their own intelligence profiles before applying the theory. Plus, teachers can identify all the activities they do in the classrooms and classify them according to the intelligences.

Richards and Rodgers (2001) describe Multiple Intelligence Theory as an approach that has been considered not only in general education but also in language teaching. “Application of MI in language teaching have been more recent, so it is not surprising that MI theory lacks some of the basic elements that might link it more directly to language education” (Richards & Rodgers, 2001, p. 117). Richards and Rodgers (2001) mention that Christison attempted to establish links between language teaching and MI theory.

The theory of MI includes a number of educational implications. Armstrong (1994) summarized these ideas into four key points:

- 1 . *Each person possesses all eight intelligences.* In each person, the eight intelligences work together in unique ways. Some people have high levels of all or most of the eight intelligences. Other people are in the middle, with a few intelligences highly developed, most modestly developed, and one or two underdeveloped.
- 2 . *Intelligences can be developed.* Gardner (1985) suggests that everyone has the capacity to develop all eight intelligences with help, instruction and encouragement.
- 3 *Intelligences work together in complex ways.* Intelligences work and interact with each other. No intelligence really exists by itself in life.
- 4 *There are many different ways to be intelligent.* There is no standard set of attributes that one must have in order to be considered intelligent.

Haley (2001) aimed to analyze applications of MI Theory to create and update teaching practices and instructional strategies. The focus of this study was to discover and encourage successful real-world applications of MI Theory in foreign language classrooms. The findings showed that there was a significant change in terms of pedagogy, teaching, students’ and teachers’ attitudes, classroom and instruction. Specifically, application of MI Theory

promoted learner-centeredness, student involvement and interest in the lessons and teacher eagerness in teaching.

Campbell (1997) suggests that teachers expand their techniques and strategies beyond the typical linguistic and logical ones used in classrooms. According to Silver et al (1997), all learners have different abilities, so one strategy that might work well with a group of students might not with another group. Because of individual differences among students, teachers are advised to use a broad range of teaching strategies.

Conclusion

Theories, approaches and methods of learning and teaching languages are numerous. We must first of all conclude that when we learn something, some sort of change is to occur within us. Also, we should remember that learning occurs through life and though it often takes place in a social context, it is a highly individualized process; we all have different learning/cognitive styles. That's why Multiple Intelligences (MI) Theory became known in the world, because Howard Gardner (an American psychologist) suggested that each individual has different aptitudes and abilities in several subjects, and that each person has several types of intelligences that are combined differently. He believes that besides the verbal-linguistic and logical-mathematical intelligences, each individual has six more intelligences, which are: musical, bodily-kinesthetic, interpersonal, intrapersonal, spatial-visual, and naturalist. Originally there were only seven but the last one was added in the past years (Gardner, 1999). Gardner also considers the possibility of adding other intelligences, which are existential, spiritual and moral. Due to the emergence of MI Theory, changes have been made in school curriculums in order to consider the new view of human capacities. Many schools, universities and educational institutions started to base their curriculum upon multiple intelligences theory.

Chapter Two: Identifying and developing learners/teachers 'MI awareness

Introduction

In the previous chapter, we have presented the literature review about learning theories, foreign language teaching approaches and methods and the Multiple Intelligences Theory and its application in EFL classroom. This chapter is devoted to the presentation and analysis of results obtained from the data gathering tools (a questionnaire and an interview) employed in this research.

Therefore, the present chapter represents the field work of the study .Throughout it ,we try to verify or falsify our hypotheses which postulate that if Students know their MI profiles and if teachers are aware of the implications of MI theory for EFL teaching. As a result, some intelligences are probably more frequently exploited, while others are neglected. In addition , these activities in class may or may not improve students' four language skills .Moreover, to collect data for our research, we adopted a qualitative approach. And we administrated a questionnaire for third year foreign languages secondary school students .As well as, an interview that was done with secondary school English teachers .teachers 'perceptions of MI theory and its application in their classes.

1 . Research Methodology

A research work is “an ongoing activity which is never totally completed because each piece of research raises additional questions for more research.” (Helbert W.Seliger.2000).

1.1. Research Method

This research is mainly descriptive using the qualitative and quantitative approach to gather data. The descriptive method enables us to both identify students' type of intelligence and describe it and analyze EFL teachers' perceptions on MI theory and its application in their classes.

1.1 Data Gathering Tools

In order to conduct our investigation and to confirm our hypotheses, two data gathering tools were relied on; a survey conducted for third year students and an interview delivered to teachers. The objective of choosing these two tools depends on the overall aims of the research which is investigating the Multiple Intelligences Theory and its application in EFL classrooms in Algeria.

1.2 Sample of the Study

Participants in this study consist of Third-year foreign languages secondary school students at Abdelbaki Ben Ziane Chouaai Secondary- School, located in Sidi Ali in the east of Mostaganem. A total of 30 students from a population of 62 completed the survey .A sample of thirty (30) students has been chosen randomly from Two third year foreign languages classes to represent the whole population of the survey .

A second sample, which concerns teachers this time, has been selected to enrich the study and to confirm or falsify whether they implement MI theory in their lessons. Therefore, Four (4) English teachers have been interviewed at Abdelbaki Ben Ziane Chouaai Secondary- School . The reason behind choosing such a sample was to examine the degree of teachers' awareness of the importance and the role of MI Theory in teaching and learning English as foreign language.

1.3 Limitations of the Study

The study was directed by implementing the following general procedures:

1. Obtaining permission to conduct the study from the educational authorities (Direction de l'Education de Mostaganem), Head of Abdelbaki Ben Ziane Chouaai Secondary- School, and English .
2. Randomly selecting the participants
3. Since the study is based on collecting data by means of an inventory (measuring instrument), the validity of the findings will be influenced by many factors:
 - 3.1. - The adequate return of the inventory by the informants.
 - 3.2. - The mood of the informants while completing the inventory.

- 3.3. - Since the respondents are human beings, we cannot really control them or know if what they say is really what they feel..
- 3.4. - The marks students get during the academic year may be misleading and may not mirror the true value of the students if the corresponding tests/exams are not valid and reliable.
- 3.5. - The scholar orientation could be biased and not empirically done. A student might have been good at scientific subjects but oriented to literary streams just because his parents are "friends" to the headmaster or to the orientation counselor.

2 . Students' Survey

2.1 Aim of the Survey

Intelligence profile is the combination of the multiple intelligences in each person. Each person has a unique combination of the eight (or more) intelligences. This combination depends on people's experience in life and their educational background. Gardner (1999) states "intelligences arise from the combination of a person's genetic heritage and life conditions in a given culture and era" (p.45).

Throughout life people can change and develop their intelligence profiles by strengthening weak intelligences and/or improving the strong ones. The profile can change even more if people are exposed to all intelligences especially in school.

Christison (1998c) encourages teachers to learn about their own intelligence profiles in order to connect their experiences in life with MI theory. This connection can help teachers understand the theory better. When teachers know more about their strengths and weaknesses, they can make better decisions for their students. McKenzie (1999) has developed a survey to determine intelligence profiles (See Appendix A). McKenzie's survey can assess anyone's profiles. He (1999) states that his inventory is "a snapshot in time" since the intelligence profile can change (p.5). So, Teachers can also assess their students' intelligence profiles in order to know them better and understand how they can enhance their students' unique profiles. It is also important for learners to know their own intelligence profiles in order to know them better and understand their process of learning. Students can benefit from this knowledge in their life outside the classroom. Knowing their strengths and weaknesses will make students aware of ways of using their strong intelligences in order to enhance their weak

ones. Teachers need to be aware of the fact that "M.I. is meant to empower, not label people!" as suggested by McKenzie (1999, p.5).

2.2 Description of the survey:

Walter McKenzie Multiple Intelligences Survey was designed by Walter McKenzie in 1999. It aims to assess individuals' multiple intelligences. Thanks to it we can know the predominant intelligence in any human being. Within the classroom, according to McKenzie (2005), MI Survey enables teachers to identify their students' multiple intelligence.

The original survey consists of nine sections. Each section comprises ten (10) statements. All the ninety statements are mixed up to avoid student intelligence identification during answering the questions. The learner is to place a check on the appropriate line of each question. After answering all the nine sections, one has to refer to the scoring instructions (which are included in the survey) to know her/his predominant intelligence (see appendix A).

Walter McKenzie survey was adapted in this study to identify the students' multiple intelligences (MI) profiles (see Appendix B). Ten statements have been reduced to five statements which have been carefully selected by choosing the easiest items that fit students' English level in order to ensure that all the statements would be well understood by the participants. The statements were categorized into nine sections, each section having 5 items. The first category reflects "naturalist intelligence". The second category suggests "musical intelligence". The third category indicates "logical intelligence". The fourth category shows "existential intelligence". The fifth category illustrates "interpersonal intelligence". The sixth category covers "kinesthetic intelligence". The seventh category addresses "verbal intelligence". The eighth category focuses on "intrapersonal intelligence". Finally, the ninth category reflects "visual intelligence".

2.3 Administration of the Survey:

The students' survey was administered to 30 students who were randomly selected from two third year foreign languages classes. Students were given the instruction, before they complete the survey, on how to do so, and for what reason it was designed. Mrs. Grayine, English Secondary-School teacher, and I explained and interpreted the Multiple Intelligences Survey to students. It was on Wednesday, February 22nd, 2017. The survey, as mentioned

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before, (see appendix B) was used in order to assess to what degree students are kinesthetic, musical, mathematical, spatial, interpersonal, existential, intrapersonal, linguistic or naturalistic and enable them to explore their MI profiles . While explaining the content of the survey, we had to use the mother tongue and, sometimes, French language to be sure all the students understood the statements.

2.4 Students' Survey Analysis

2.4.1 Population

Population	Age	Girls	Boys
30	17 to 23	23	07

Table 2.1 : Students population

2.4.2 Distribution of the different intelligences

Name	Naturalist	Musical	Logic	Existential	Interpersonal	Kinesthetic	Verbal	Intrapersonal	Visual	Strength
1	2	5	3	3	3	3	4	4	3	Musical
2	3	4	2	4	5	4	3	3	2	Interpersonal
3	4	5	2	4	5	4	3	4	2	Musical/Interpersonal
4	3	3	0	2	4	2	1	2	2	Interpersonal
5	2	4	1	0	3	3	1	2	1	Musical
6	1	3	0	2	4	2	1	1	3	Interpersonal
7	0	3	1	1	3	4	5	1	1	Verbal
8	5	2	3	3	3	4	3	1	4	Naturalistic
9	1	3	3	2	4	2	4	3	3	Interpersonal / Verbal
10	0	1	1	1	2	3	3	4	3	Intrapersonal
11	1	4	1	1	1	2	1	3	3	Musical
12	3	4	2	2	3	2	2	3	1	Musical
13	3	5	2	4	2	4	2	1	3	Musical
14	3	4	3	2	4	3	3	1	1	Musical/Interpersonal
15	1	0	2	1	1	5	1	1	2	Kinesthetic
16	4	3	3	3	3	2	3	4	5	Visual
17	4	4	3	4	5	3	2	1	4	Interpersonal
18	4	2	2	2	0	3	5	3	2	Verbal
19	2	4	3	2	1	2	2	0	3	Musical
20	3	2	2	1	4	2	1	4	1	Interpersonal/Intrapersonal
21	2	4	4	3	2	1	2	0	3	Musical/Logic
22	4	5	4	4	4	4	2	3	3	Musical
23	3	3	4	3	3	2	5	4	4	Verbal
24	1	3	5	4	3	2	5	2	1	Logic/ Verbal
25	3	5	4	3	3	2	4	2	5	Musical/Visual

26	3	2	1	3	2	0	1	2	5	Visual
27	1	4	3	5	2	3	4	3	3	Existential
28	5	5	2	3	4	3	2	2	2	Musical/ Naturalistic
29	0	2	4	5	2	3	1	2	1	Existential
30	2	3	3	5	3	2	5	2	3	Existential/ Verbal

Table 2. 2 : Distribution of The Different Intelligences

2.4.3 Distribution of the different intelligences

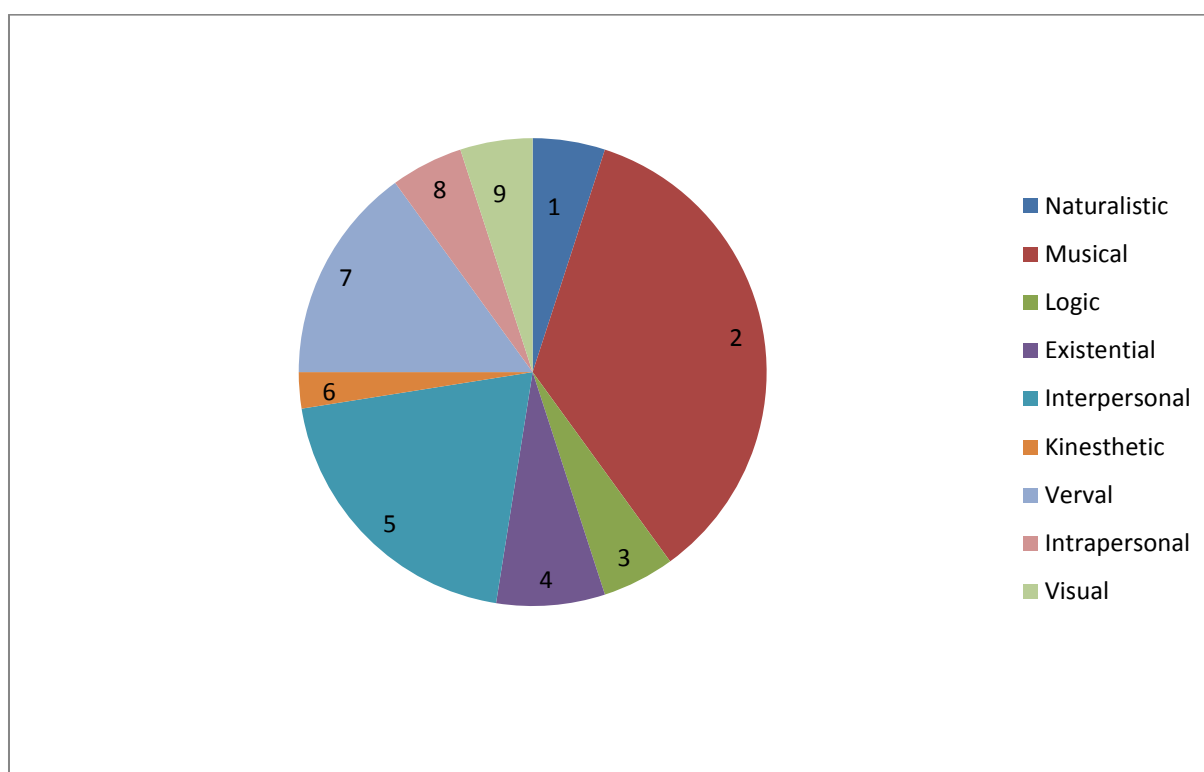


Figure 2.2 : Distribution of The Different Intelligences

1. represents the pupils who have Naturalistic Intelligence
2. represents the pupils who have Musical Intelligence
3. represents the pupils who have Logical Intelligence
4. represents the pupils who have Existential Intelligence
5. represents the pupils who have Interpersonal Intelligence
6. represents the pupils who have kinesthetic Intelligence
7. represents the pupils who have Verbal Intelligence

8. represents the pupils who have Intrapersonal Intelligence
9. represents the pupils who have Visual Intelligence

2.4.4 Percentages of the various intelligences

Naturalistic	Musical	Logic	Existential	Interpersonal	Kinesthetic	Verbal	Intrapersonal	Visual
5,00%	35,00%	5,00%	7,50%	20,00%	2,50%	15,00%	5,00%	5,00%

Table 2.3 : Percentages of the various intelligences

2.4.5 Students' Predominant Intelligences

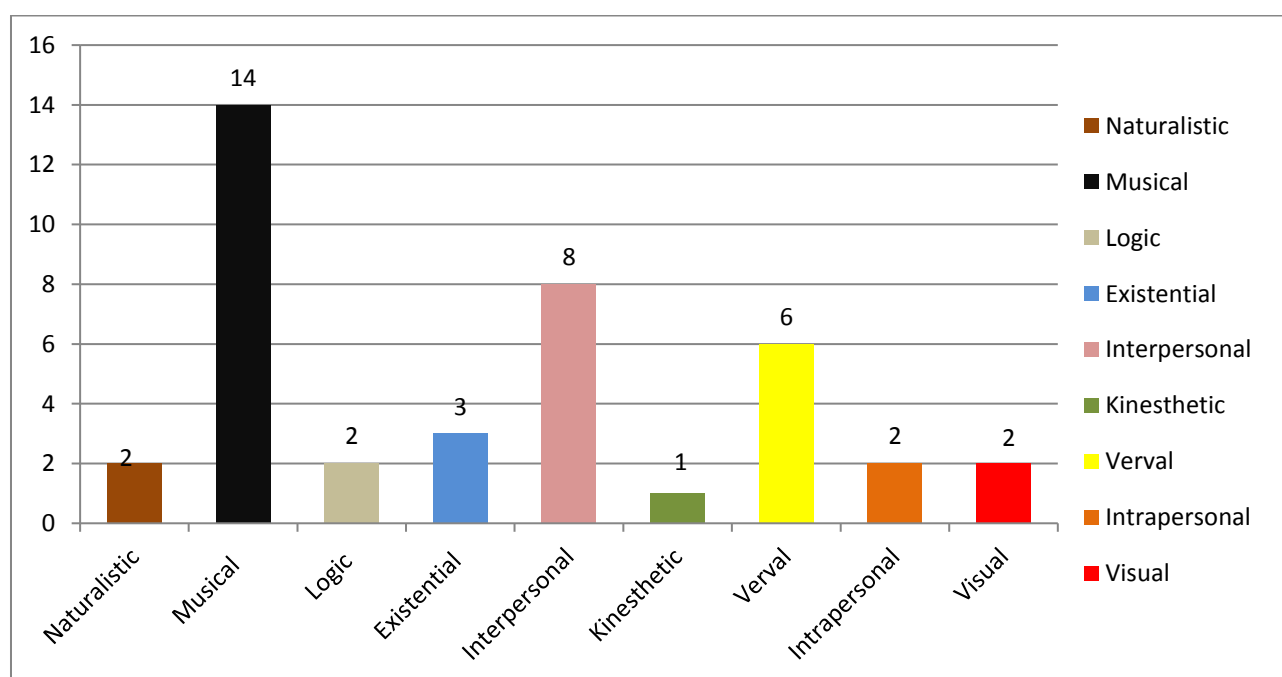


Figure 2.3 : students' Predominant Intelligences

2.5 Discussion of Results

The data obtained through the MI Survey are presented as in the above figures. As can be seen in table, Musical intelligence ranks first among students (35 %). Interpersonal intelligence ranks second with (20 %). Then Verbal Intelligence with (15 %), respectively,

Existential intelligence ranks fourth with (07,50%). These four intelligence types are followed by Logical-mathematical, naturalist, visual and intrapersonal intelligence with (05 %) rank Fifth, sixth, and seventh and eighth, respectively, bodily-kinesthetic intelligence is (02,50 %). Overall, the results show that the mean scores for different intelligence types ranged between (35%) and (02,50%), musical intelligence being the most dominant and bodily-kinesthetic intelligence the least dominant.

3 Teachers Interview

3.1 Aim of the Interview

Qualitative data of this study was collected from interviews. After administering the Multiple Intelligences Survey to students, teacher interviews (see Appendix C) were conducted to gather data regarding teachers' perceptions on the MI theory and its application in their classes. Also, in order to know teachers' awareness and background about multiple intelligences theory. Yin (2003) regards interviews as an essential source of evidence in a case study, as they enable the complex situations being investigated to be interpreted and reported through the words of the participant. They may also help the researcher identify other relevant sources of evidence. To mention some of the aims of interviews, the researcher can expect the interviewees to treat the questions more seriously than in questionnaires; there is less opportunity in interviews than in questionnaires for the respondents inadvertently to omit something; any ambiguities or misunderstandings of the questions can be clarified (e.g. respondents' first language can be used to interpret the meanings); during the interview, both the researcher and the respondents have the opportunity to ask for further information and go into in-depth understanding of both the researcher's and the research participants' perspectives or experiences.

3.2 Description of the Interview

At the simplest level, interviews can be described as "the elicitation of data by one person from another through person-to-person encounters" (Nunan 1992:231). According to (Nunan 1992:231), there are three ways to conduct an interview. The first one is "Open/unstructured" interview provides the interviewee with broad freedom of expression and elaboration and often resembles informal talks. It allows greater depth, and one question leads to another without a pre-planned agenda of what will be asked. The second type is a

“semi-structured “ interview which consists of specific and defined questions determined beforehand, but at the same time it allows some elaboration in the questions and answers ,there is no planned list of questions to ask but there is a control over what to ask, where to proceed next and what to expect from it. Lastly,” the structured interview”, as the name implies, follows a plan in which there are a set of structured questions to be asked in a predetermined order.

In this study, a semi-structured interview was done. As in many studies on language learning and teaching strategies, semi structured interviews are used to elicit information. The researcher prepared a set of questions she would ask during the interviews, but she was also flexible to change the wording of some questions or to add more questions during the actual interviews to cover all the important issues she aimed to investigate. In other words, the researcher was ready for any unplanned issues that might rise during the interviews.

3.3 Administration of the Interview

The interviews have been designed for Abdelbaki Ben Ziane Chouaai Secondary-School teachers of English of the academic year 2016-2017 .The interviews took period of 4 days, they were conducted from February 12–February16, 2017 in each participant's classroom . Four English teachers were interviewed individually and the medium was English. After I had briefly introduced myself and the purpose of the study, I started the interview questions. Each interview lasted between 20 and 30 minutes. Two interviews were recorded with the respondents' permission and some notes were taken during and following the interview. All teachers were asked the same questions, the flexibility of the semi-structured interviews format enabled the researcher to probe beyond the teachers' initial answers to gain further clarification or elaboration, and a greater depth of information.

The interviews contain 14 questions designed according to specific aims and purposes. They included some direct questions like :(Describe your teaching style and how you accommodate the different learning styles within your classes , Are you aware of your students` potentials, strong/weak intelligences?) . At the same time , the researcher intentionally asked indirect questions in order to know if teachers are aware of the theory of Multiple Intelligences and if they really implement it in their lessons (E.G Do you provide physical movement opportunities during class time ? , Do you incorporate music into your lessons ? Do you use

multiple forms of graphics in your lessons ? Do you allow your student working together in groups in your classroom to solve problems in their class work ?)

3.4 Teachers' Interview Analysis

In the following analysis, questions and answers are discussed independently and in details. The results showed that teacher' responses to the first question reveal that all 4 teachers did not discuss with their students how they prefer to learn because they claimed that they have to follow and finish the syllabus giving by the ministry of education before student's Baccalaureate examination .In response to question three , teachers' answers were different , the first teacher said that her role as a teacher is to facilitate learning English particularly grammar rules and vocabulary . The second and third teachers answered that their teaching style is the same as their teachers they prefer using traditional way of teaching in which their role as teachers is explaining , providing knowledge and correcting errors. The fourth teacher said that her primary goal as an English teacher is to enrich her students linguistic repertoire ,she focuses more on reading tasks. In addition to , Teachers' responses to the fourth question reveal that 3 teachers consider using music in their lesson is wasting of time . Whereas other teacher strongly agreed the idea but the musical instruments are not available in the school .When I asked them if they adapted the existing materials on the basis of their students different intelligence types, two teachers preferred not answering the question , they claimed that it is a personal choice , other teachers said “ yes “ but not all the time just to break class routine when they felt that students got bored. Regarding the activities that teachers use to address the intelligence types of the students, all teachers reported that they did it rarely because there is lack of time and resources to adapt activities. Besides, When I asked them if they allowed their students working together in groups in your classroom to solve problems in their class work . All the four teacher firmly refused the idea because of the huge number of students ,they said that it is difficult for a teacher to manage a class of over forty students. Regarding the application of new teaching strategies or new theories in classroom ,all teachers said that recently after the reform movement which was done by the ministry of Education , they were obliged to use only (Competency-based Approach” CBA”) in their classes .When I asked them if they knew Howard Gardner's Multiple Intelligences Theory as the last question ,the majority of the teachers do not know what the theory is about but they can recall the name of some intelligences but one teacher said that she had an idea

about Howard Gardner's Multiple Intelligences Theory through the internet but her knowledge is limited.

3.5 Discussion of Results

All of the Four teachers demonstrated less or unfamiliarity with the idea of MI's implication in EFL teaching and learning. The majority's knowledge about MI is limited within the scope of recalling the name of some intelligences that they had heard about it through the internet. Teachers' limitation of knowledge concerning the theory and its application in EFL classroom lead them to a huge misconception as well as threatening. They are unaware of the fact that, identify and understand the individuality of every student 'intelligence areas will help them organize the activities efficiently to serve the lessons integrating those dominant intelligence and strength areas of students. All of the respondents incorrectly limited the group work , group discussion and collaboration in classroom because of huge number of students ,they said that it is difficult for a teacher to manage a class of over forty students and design a teaching strategy which will meet each student's need. The reason for this is simple: the teacher is restricted in time ,energy and the curriculum that they cannot cope with so many students on an individual basis, even the ones that need extra help. Therefore, they completely neglect interpersonal and intrapersonal intelligence types which is the most dominant in students MI profiles .

All the teachers expressed that enriching students' linguistic repertoire is their primary goal in teaching EFL in which there is overemphasis on grammar, vocabulary, and reading in teaching and neglect writing, listening and speaking. In fact, listening, speaking, reading, and writing need equal attention if the new communicative skills now required are to be attained. The Grammar Translation Method that most English teachers in Abdelbaki Ben Ziane Chouaai Secondary- School use in classrooms does not cover all aspects of language equally well. Students are requested to memorize bilingual word lists and analyze and memorize grammar rules in detail.

The practice of musical intelligence was recognized fully absent in that Secondary School .The majority of the respondents recognized their hesitance to deliver any lesson using musical technique except practicing this intelligence limitedly by using rhythmic expressions

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in teaching rhyming vocabulary in spite of a big number of students have musical intelligence but one teacher welcomed the idea of using music in teaching and learning that it would be very beneficial for both teachers and students .

Through the interview, I have noticed that teaching English in Ben Ziane Chouaai Secondary- School is too teacher-centered. Richards (1990) has suggested that a teacher's role should include organizing, motivating, counseling, providing accurate language models, developing materials, evaluating and acting as a friend. However, in that school, the teacher's role is mainly to act as an instructor, explainer, and corrector of errors, no discussion for students preferences or learning styles , the majority of them said that they don't adapt the existing materials on the basis of their students different intelligence types because as simple as they are unaware of their students intelligences profiles , they just follow existing materials (course book, workbook, textbook etc.) slavishly. Teamwork between students is seldom used as a teaching strategy. In class, it is the teacher that always initiates the discussion, the only one who moves in classroom, no physical movement opportunities are given to students during class time whereas students are just passive listeners and receivers. Therefore, interaction is hindered since there is only one-way communication (Tsai, 1998). This approach to teaching restricts Kinesthetic/bodily intelligence type that many students possess it.

Conclusion

In this chapter, we described the instrument used to collect data from EFL students through Walter McKenzie Multiple Intelligences Survey and teachers' interview. Two main points were discussed: intelligence profiles, and EFL teachers' perception on MI theory. Firstly, intelligence profiles are ways of knowing more about individual profiles by creating inventories or surveys that connect each intelligence with activities and interests in everyday lives. These instruments are not meant to measure learners' intelligences but they were created to make connections between the theory and its application in the classroom .The findings of the survey showed that the majority of students have musical intelligence as the predominant intelligence among them which seems as a surprise to their English teachers. Secondly , The findings of the interview clearly reveal a poor level of consideration of MI in teaching EFL in Abdelbaki Ben Ziane Chouaai Secondary- School. The situation of MI theory application is quite imbalanced as most of the focus of the process is given to the

implementation of only one of the intelligences, verbal /linguistic intelligence, and the rest of the intelligences are heavily undermined and are rarely practiced in classrooms. English teachers in Abdelbaki Ben Ziane Chouaai Secondary- School typically focus on the syllabus based time target and academic score. In addition to ,students' problem solving , activity tasks or creativity are rarely performed . Most of the teachers do not consider planning and implementing instruction considering the individualized learning styles of students. Most of the time strong intelligence areas of students remain unrecognized .However, English teachers in Abdelbaki Ben Ziane Chouaai Secondary- School are still hesitant to take the bold steps to transform their classes from the old "spoon fed" system of teaching to the dynamic application of MI principles. The reason for this is that it involves more work on their part and develop their teaching strategies to build autonomous and long-life EFL learners.

Chapter Three: MI Pedagogical Implications

Introduction

As it has been explained in chapter 2, the results of the current study reveal that teaching strategies and activities do not really cater for the students' MI profiles. This can be considered as one of the problematic issues in many EFL classrooms because students have different intelligences but they are not addressed in classrooms (Altan, 2001). Therefore, the results of this study may have some practical implications for teachers and educators, as well as some theoretical implications for further research. In order to help learners to better develop and improve their English language skills and abilities, it can be suggested that EFL teachers take advantage of the data obtained in the present study to expand their awareness of students' multiple intelligence types in relation to classroom activities that they use in teaching. Taking MI Theory into consideration in shaping ,adapting existing materials and planning lessons for students might improve learning and teaching processes, encourage students, and raise their interest and motivation.

1. Recommendations and Implications:

1.1 MI Theory and Teacher's Role:

The theory of multiple intelligences gives some innovative ideas to teachers to teach in the classroom. Armstrong (2000) points out that one of the most remarkable features of MI theory of multiple intelligences is how to provide eight different potential pathways to learning. He further argues that "MI theory facilitates effective learning if a teacher is having difficulty reaching a student in the more traditional linguistic or logical ways of instruction" (p. 1). Richards (1990) stresses that the teacher's role today is more than an implementer of materials and presenter. Therefore, teachers need to adopt a research orientation to their classroom and teaching. However, prior to reflecting on their teaching strategies and learners' differences, each teacher should reexamine the nature of his or her own intelligence. Rolf Palmberg (2004) in his attempt to describe how MI theory has been applied to teaching English as a foreign language to students, points out that teachers have to take into account eight steps for using MI theory in the classroom:

1. **Step One** : Identify your own intelligence profile. There are several questionnaires available, one of the most comprehensive and well-used in all the world is Walter

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McKenzie's Survey published on the internet (McKenzie 1999). Also the checklists presented by Mary Ann Christison are aimed particularly at EFL students and therefore very useful for this purpose.

2. **Step Two :** Identify your learners' intelligence profiles. Again, there are several questionnaires to be found for this purpose, e.g. the one in Berman (1998). Another way of identifying learners' intelligence profiles is through observation, using e.g. Thomas Armstrong's checklist which is available on the internet (Armstrong 2000). Also McKenzie's Survey (McKenzie 1999).
3. **Step Three :** Study the list of activities, (methods of work, types of practice, classroom techniques), presented in Berman's book (A Multiple Intelligences Road to an ELT Classroom, 1998) or Armstrong's book (Multiple Intelligences in the classroom, 2000) and try to categorize them according to the intelligence they cater for. Which of them are best suitable for foreign-language teaching in general and which are best suitable for your learners in particular.
4. **Step Four :** Study the language-skills activities chart suggested by Tanner ("Teaching intelligently." English Teaching professional 20, 2001). Select one of the four language skills (e.g. Speaking) and cut out the list of suggestions made for that particular language skill for each of the eight different intelligences contained in the chart. Next, prepare a similar list of activities for each intelligence, but this time concentrating on another language skill (e.g. speaking). When you have finished, compare your list of activities with Tanner's list of suggested activities. Language Skills Activities :

Intelligence type	speaking skill activity
verbal-linguistic	In groups, learners discuss statements about a controversial topic.
logical-mathematical	Learners in a group each have a picture. They discuss and re-order them, without showing them, to create a story.
visual-spatial	In pairs, learners discover the differences between two pictures without showing them to each other.
bodily-kinesthetic	Learners play a game where they obtain information from various places in the classroom and report back.
musical-rhythmic	Learners listen to a musical video clip (with the TV covered up) and discuss which images might accompany the music.
Intrapersonal	Learners record a speech or talk on a cassette.

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Interpersonal	Learners read problem-page letters and discuss responses.
Naturalist	Learners discuss an environmental issue.

Table 3. 4: The “Speaking” column in Tanner’s chart contains the following activities (Tanner 2001).

5. **Step Five:** Examine some foreign-language teaching workbooks. Try to identify a number of typical exercises or activities for each of the nine intelligences.
6. **Step Six:** Reflect on your most recent foreign-language lesson. Assuming that you had to do the same lesson again, this time with a class consisting of Intrapersonal students , what would you do differently? Why?
7. **Step Seven:** Prepare an MI-based lesson outline .Select a teaching topic for a specific learner group. Write down the topic on a large sheet of paper and draw a circle around the word. Make notes of all tasks, texts, exercises, methods of work, aids, activities, songs etc. that relate to the given topic and that you come to think of. Do not mind if they appear unrealistic or impracticable. Next, arrange your ideas according to the intelligence you think they cater for the best. Now take an overall look at your sheet of paper. Are there activities that can be combined? Are there activities that can be modified to fulfill the teaching objectives more efficiently? Are there activities that for some reason do not seem suitable for the present context? Next, rearrange the remaining, possibly modified ideas and activities into a logical order (from old to new; from easy to more difficult).
8. **Step Eight:** Plan a lesson .Plan a new language lesson the way you normally do, using, if applicable, the ideas you came up with during Step Eight. Then answer the following questions (modified from Nicholson-Nelson 1998) and make adjustments into your lesson plan wherever necessary:

An MI lesson plan checklist

intelligence	checklist	yes	no
linguistic	Have you included reading, speaking, listening, writing, spelling activities, word games?		
Logical-mathematical	Have you included grammar practice,problem-solving tasks, logic puzzles,calculations, critical thinking activities?		

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visual-spatial	Have you included visuals, , pictures, graphs, video?		
musical	Have you included music, sounds, intonation practice, rhythm?		
intrapersonal	Have you included private learning time, self-reflexion, learning diaries?		
interpersonal	Have you included pair work,communicative tasks, role play, group work, discussions?		
naturalist	Have you included nature-related topics,classification activities, categorization tasks?		
existentialist	Have you told your students where the linguistic input of the present lesson fits in with the linguistic input of the previous lesson and why the activities of the present lesson are important for real life?		
bodily-kinesthetic	Have you included movement, role play,drama, hands-on activities?		

Table 3.5 : An elaborated version of a checklist presented in Nicholson-Nelson (1998).

According to Christison& Kennedy (1999), teachers can focus on four different modes in order to implement the theory of Multiple Intelligences in EFL/ESL classroom and with EFL learners. Christison (1999) offers several suggestions for how to approach the theory of Multiple Intelligences in the classroom, including:

- As a tool to help students develop a better understanding and appreciation of their own strengths and learning preferences. According to Christison&Kennedy (1999), the above mentioned can be done by taking an inventories or surveys which might help the students to define their predominant type of intelligence. According to Christison, different language tasks and activities can be created in order to cater for the needs of multiple intelligences and the needs of the language learners.
- As a tool to develop a better understanding of learners' intelligences and awareness of intelligence diversity within the classroom. According to Christison& Kennedy (1999), the theory of Multiple Intelligences raises the awareness of teachers of the diversity of their students' potentials and skills and different ways the students' demonstrate their knowledge and understanding of the material.

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- As a guide to provide a greater variety of ways for students to learn and to demonstrate their learning and understanding. According to Christison& Kennedy (1999) raising students' awareness of their strengths and weaknesses can make them more responsive to a variety of learning activities and tasks which might be unfamiliar to students based backgrounds and experiences.
- As a guide to develop lesson plans that address the full range of learner needs. Lesson plans based on the theory of Multiple Intelligences might combine different language learning tasks and activities which, according to Christison& Kennedy(1999) would not aim to use specific intelligences but to enable the learners to use the best way for them to acquire that knowledge.

Concerning the main topic of our research, Multiple Intelligences, we have come out with several implications for teachers in terms of classroom instruction. We would suggest the following:

- The MI nine intelligences are so much needed to productively function in schools. As discussed in our previous chapters, traditional education systems widely place a strong emphasis on the development of verbal and mathematical intelligences. The implementation of MI theory implies that teachers should teach according to their students needs, preferences, learning styles, skills , competencies and talents .
- Another implication is that teachers should identify their students' multiple intelligences using the inventories, surveys and questionnaires we suggested or the ones we can find online. Knowing students preferred way of learning will allow the teacher to better understand them. In addition to that, the teacher will be in a better position to structure the presentation of material in a style which engages most or all of the intelligences. For example, when teaching about Algeria's culture and tradition, a teacher can make use of Algerian traditional food photos and videos (visual intelligence),play famous Algerian songs and music as Andalusi music (musical intelligence), push students to read Algerian literature , books ,poems and novels of Algerian writers as Mohammed Dib, Kateb Yacine and Assia Djebar (linguistic intelligence). This kind of presentation does excite students about learning and at the same time enables the teacher to reinforce the same material in a variety of ways. It is only by activating a wide assortment of intelligences that teaching can facilitate and ensure a deeper understanding of the subject material. We have insisted on the fact

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that everyone is born possessing infinity of intelligences. Students come into the classroom with different intelligences. This means that each child comes with his own unique. Therefore, it is impossible, for any teacher whatever his proficiency to accommodate every lesson to all the intelligences found within the classroom. Nevertheless the teacher adhering to MI can show students how to use their more developed intelligences to assist in the understanding of a subject and how to develop their weaker intelligences.

- In our practical part, we have demonstrated that musical, linguistic and interpersonal intelligences play an important role in learning languages. This implies that teachers are to develop them in students to reach better results. They can activate them by using songs, creating melodies, Singing ,spoken word, reading (novels and poetry), writing their own thoughts and ideas, pair-work, group-work , peer teaching, cooperative groups ,team games.
- We have also demonstrated that MI theory can enhance English learning. The teacher should create a balance within these activities so no one of the multiple intelligences is over emphasized. Review or remedial work should include different intelligences to give the students another way of practicing the material. Hence, giving the student an opportunity to develop his weak intelligences.

1.2 MI Theory and Parents' role:

Parents should understand that there is no bright and stupid pupil. If they happen to get angry while teaching their children at home and accuse them of stupidity and ignorance, they are totally wrong. They must understand that if their children do not understand, it is because the parents' teaching style does not match with their children's. These parents are to identify their children's preferred channels of learning and dispense their instructions accordingly. They should get in touch with their pupils' regular teachers and exchange ideas. Their role is so important because the teacher with more than thirty students in class has little chance to succeed. To nurture an affinity for reading, writing and polished speaking, parents can introduce lectures, discussions, word games and other activities to their kids in order to develop their kids linguistic intelligence. To develop logical-mathematical intelligence in children, parents should introduce science experiments, number and logic games. Activities like drama, dance, sports, and anything that requires children's body will help strengthen their bodily-kinesthetic intelligence. In the age of digital devices like smartphones and tablets, it is

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easy for kids to grow up as loners who prefer communicating with a screen than a real life person. To prevent this and develop their interpersonal intelligence, group activities like cooperative learning, community involvement and social gatherings will help them.

2. Suggestions:

2.1 Teaching Strategies Based on MI Theory:

In terms of teaching English as a foreign language, there is a wide range of teaching strategies and activities which might be used in order to cater for the different types of intelligences and applied in EFL/ESL classroom. These strategies can be grouped as follows:

2.1.1 Teaching Strategies for Linguistic Intelligence:

There is no doubt that the linguistic intelligence is the easiest to address in the EFL classroom and is the one most frequently exploited. Linguistics is after all, the study of language. Furthermore, most instruction in schools depends heavily on the learner's linguistic intelligence. Armstrong (2000), states that involving new strategies to enhance this intelligence is a necessity because the traditional ones have been overused. He suggested the following:

- **Story telling :** Story telling is considered as an essential teaching tool since it has been part of our cultures for thousands of years. It was a means of conveying knowledge and developing intelligence in humanity. Using them in class enables the teacher to weave essential ideas, concepts and instructional goals into a story directly told to students. The teacher's role here is to include the essential elements (language exponents) of the lesson in the story and present it to students. Such strategy sustains interest because it brings not only outputs though entertainment, but gets students impressed by their teacher's willingness to innovate and create.
- **Brainstorming :** Vygotsky (quoted in Armstrong 2000) once claimed that a thought is like a cloud shedding a shower of words. Brainstorming is like this cloud, where students produce a lot of thoughts which when collected and put on the chalkboard, gives a clearer idea of the topic being discussed. The general rule of brainstorming is setting students to share whatever comes to their mind that is relevant to the topic under study. The ideas are placed on the board at random. After every student has

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been given the opportunity to share, students reflect and organize the ideas, and use them in a specific task or project. This strategy encourages original thoughts and creativity.

- **Tape Recording:** Armstrong (2000) stated that Tape recorders or other audio recording devices, including some software, are among the most valuable learning tools in any classroom, since it offers students an efficient medium through which to learn a foreign language. It helps them develop their linguistic powers and verbal communication skills. When using it for listening, learners, especially where English is learned as a foreign language (as in Algeria), improve their pronunciation and master the phonological system of the target language. When using it as a recorder, students "talk out aloud" and come back to what they said, to revise and correct whatever was recorded. Recording also, gives the students an opportunity to express their inner feelings in a safe and non-threatening environment. We believe a language lab would be a perfect learning tool if appropriately used.
- **Journal Writing:** A journal in this context, allows students to make ongoing written records related to a given topic. Recording here will be purposeful, not just for the sake of writing. It can be fully private, shared only by the student and his teacher. If the journal holder is willing to share what he wrote with his peers, the teacher allows him to read it to the class. Furthermore, students might incorporate multiple intelligences in their journal. They can put drawings, photos, dialogues and any other nonverbal data.
- **Publishing:** Writing in class has become a painful experience. Students complete papers and hand them to the teacher, who, in his turn, grades and gives them back to the students. Students very often throw these papers away. A very dreary process has become writing. MI's message concerning writing is different: it is a tool whose role is communicating and influencing people. MI urges teachers to create word-processing programs, school newspapers or magazines where students can have their work published. When students find that their work is exhibited to a wide audience, discussed and argued, they get motivated to do better and become linguistically empowered. Nowadays, as school website is necessary to develop school learning in all its aspects.

In addition to other activities catering for linguistic intelligences like: : listening to lectures/stories, reading books/response journals, reading with a partner, debates,

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teacher reading to students, translating, presenting materials orally, writing a poem, myth, legend, short play, news article, creating a talk show radio program, conducting an interview, composition, literature, word games, poetry, writing, speaking, using language in games, puzzles and creative activities, group discussions, completing worksheets, giving presentations, word building games, memorizing, exercising four skills, yes/no questions, asking questions, identifying various themes, round table discussion

2.1.2 Teaching Strategies for Logical-Mathematical Intelligence:

The logical-mathematical intelligence is most exploited in science, math and logic classes. This intelligence coupled with the linguistic intelligence is the foundation of most educational systems. The development of the logical-mathematical intelligence is indispensable to language learning, it is necessary for understanding the way language works and, at a higher level, aids the understanding of grammar, syntax, morphology and phonetics.

Armstrong (2000) suggested different strategies as follow:

- **Calculations and Quantifications:** In foreign language class teachers should involve students in mathematical thinking by introducing passages which foster logic and math. Examples include: How many bees live in a hive? Distances, geometric figures in describing object, and so forth. The same thing can be said for other school subjects.
- **Classifications and Categorizing:** In the EFL class, in a unit dealing with describing places, students might brainstorm a random list of geographic cities in Algeria , then classify them by type of climate (e.g., desert, mountain, plants, or tropical) and put them appropriately on a map. In science, students might classify states of matter under the appropriate category: Gas, Liquid, and Solid. The value of this approach is that divergent fragments of information can be organized around a certain theme, making them subject to discussion and expansion.
- **Socratic Questioning :** This strategy involves teaching by asking questions to draw out answers from pupils. It is a type of leading out. The questions Socrates used to ask in order to probe rationale, reasons and evidence include: Why is that happening? How do you know this? Show me... ? Can you give me an example of that? What do you think causes...? What is the nature of this? Here, instead of spoon feeding, the

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teacher participates in dialogues with students to uncover the rightness or wrongness of the students' beliefs. He aims at encouraging clarity, logical coherence, and accuracy through artful thinking.

- **Science Thinking** : teachers should spread science thinking through the curriculum. They can present texts which mix science and literature (e.g., how the development of technology influenced our daily life), or global issues such as Arab Revolutions(Arab Spring) , AIDS, and the greenhouse effect (referring them to hurricanes, floods all over the world). Science thinking empowers logical-mathematical intelligence and enriches students' perspective .

In addition to other Activities catering for logical-mathematical intelligence: Crossword, ordering, matching, science demonstration and experiments, logic puzzles and games, story problems with numbers, logical/sequential presentation of subject matter, summarizing, analyzing grammar, solving word problems, creating categories for spelling/vocabulary, determining cause and effect, sequencing events in a story, designing and conducting ,describing the patterns, number games, critical thinking, science combinations, mental calculations, guided discovery, comparing, phrasal verb grids, sequencing/ordering, predicting, identifying errors, inferring, giving reasons and defending them, testing hypothesis .

2.1.3. Teaching Strategies for Spatial Intelligence:

Most visual presentations today consist of writing on the board which actually taps the linguistic intelligence. Visuals as well as auditory modes are a must to satisfy the needs of the learners under this category. The following strategies, as Armstrong (2000) suggested, are to be included in the curriculum to activate spatial intelligence:

- **Visualization** : This strategy consists of involving the learners in creating "movie or TV screen" in their minds. Any information should be translated into images or pictures to ensure better assimilation and recall. Teachers are urged to make use of photos, slides drawings, and graphic symbols to enhance this intelligence
- **Color Cues** : Highly spatial students are often sensitive to color. Unfortunately, the school day is usually filled with black-and-white texts, copy books, work-sheets, and chalkboards. There are, however, many creative ways

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to put color into the classroom as a learning tool. Use a variety of colors of markers, and transparencies when writing in front of the class. Provide students with colored pencils and pens and colored paper on which to write assignments. Students can learn to use different colored markers to “color code” material they are studying (e.g., mark all the key points in red, all the supporting data in green, all the unclear passages in orange).

- **Creating charts, posters, graphs, or diagrams** :Whenever dealing with purely linguistic information, teachers are asked to translate or set students to translate such information into charts, posters or diagrams.
- **Making a map** : Maps constitute the core of spatiality. They train the students to transform large areas/spaces into a graphic form to acquire a precise and accurate understanding of a given topic. Their appropriate use stimulates spatial intelligence in many ways.

In addition to other Activities catering for spatial intelligence: Using grids, clusters, videos, movies, using art, graphic organizers, illustrating stories, using sentence strips, using drawings to express ideas and feelings, sequencing sentences to form a coherent story, creating photo album, inventing a board or card game to demonstrate, illustrate, sketch and sculpt, art activities, imagination games, geometric figures, problem solving.

2.1.4 Teaching Strategies for Bodily-Kinesthetic Intelligence:

Using the body as a means of accelerating language learning has been used extensively with young learners. But unfortunately, many teachers often fear from this intelligence because they are afraid the learners will become very active and will make a lot of noise and it will be difficult for the class to settle down again. Furthermore, in classes with over thirty learners, some kinesthetic activities might be difficult to implement and teachers often find them time-consuming. Armstrong (2000) suggested Some kinesthetic strategies and techniques which are:

- **Body Answers**
- **Classroom Theater**
- **Kinesthetic Concepts**
- **Body Maps**

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In addition to other Activities catering for bodily-kinesthetic intelligence: role-plays, , field experiences, creating a movement or a sequence of movements to explain, making task or puzzle cards, building or constructing, art forms, movements, drama, sports, manipulatives, object coordination, dancing, crafts, miming, circle dancing, brain gym, relaxation exercises, craftwork, using computers, acting, classroom games, mingling in the classroom, circulating round the classroom, tracing intonational contours with arms and fingers while saying a given utterance.

2.1.5 Teaching Strategies for Musical Intelligence:

Music has been used for centuries as a medium for disseminating knowledge and sharing information. In addition, it has been used in different fields to improve retention. In some approaches of language learning, music plays an important role and is believed to be central to learning. “Songs are useful for “freeing the speech muscles” and “evoking positive emotions” (Diane Larsen-Freeman 2000: 78). Teachers and students alike ought to develop this intelligence to achieve better academic results. The strategies a teacher should adhere to in order to empower this intelligence, according to Amstrong (2000), include:

- **Rhythms, Songs, Raps, and Chants**
- **Supermemory Music**
- **Musical Concepts**
- **Mood Music**

In addition to other Activities catering for musical intelligence: Singing, playing recorded music, playing live music (piano, guitar), jazz chants, reciting poetry, associating music to story mood/story plot, writing song lyrics, using rhythm to learn/present intonation patterns, giving presentation with appropriate musical accompaniment, explaining, sound differentiation, musical games, background music, responding emotionally to music, welcoming students with music, writing words to simple well-known melody.

2.1.6 Teaching Strategies for Interpersonal Intelligence

Some learners, more than others, need to interact while learning and need to share ideas with others. Edge (1992) states that people learn by putting thoughts together and expressing themselves ; so somebody else can understand them. In fact, certain people can

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learn only after they have articulated and explained their ideas to others. Many teachers say that they learn a subject matter best after they have taught it to a class. Learners should be provided by strategies with abilities to interact with others and interpret their behavior: perceive their moods, temperaments, motivations and intentions. Among the corresponding strategies according to Armstrong (2000) are :

- **Peer Sharing**
- **Cooperative Groups**
- **Board Games**
- **Simulations**

In addition to other Activities addressing to interpersonal intelligence: Pair work or peer teaching, group brainstorming, group problem solving, project work, pen pals, writing group stories, playing vocabulary games, peer editing, intercultural awareness, conducting a meeting, participating in a service project, teaching someone about, practice giving and receiving feedback on, using technology to, cooperative learning, role playing, collective writing, information-gap activities, conducting a class survey, teamwork games/exercises, peer feedback.

2.1.7 Teaching Strategies for Intrapersonal Intelligence

In classes with an emphasis on cooperative learning, individuals who have a highly developed intrapersonal intelligence will need some time to work alone. In addition, in most contexts during testing and evaluation learners are usually alone and rely heavily on their intrapersonal intelligence. Therefore, the teacher has to make allowances for learners who have a deep sense of individuality and feel they need to work independently. To develop this type of intelligence, a student must have an understanding of himself, of knowing who he is, what he can do, what he wants to do, and how to react to things. Teachers should include in their lessons the following:

- **Reflection moments**
- **Options for homework and assignments**
- **Opportunities for choices**
- **Setting goals**
- **Independent study**

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- **Individual work**

In addition to other Activities catering for intrapersonal intelligence :Tasks with self-evaluation component, interest centers, options for homework, personal journal keeping, dialogue journals, describing qualities you possess, setting and pursuing a goal to, describing one of your personal values about, assessing your own work, individualized instruction, project work, learner diaries, self-study, personal goal setting, discussion about what is important and of value in life, reflecting on the personal importance of what is being learned, reacting to the qualities, values, and actions of those featured in stories or poems, expressing feelings and emotions...

2.1.8 Teaching Strategies for Naturalist Intelligence

Traditional classes today are most of the time held inside the classroom. This arrangement does not fit the students who learn best through nature. These students feel the pain of being cut off from their favorite and valuable source of learning. Biology and Ecology can also be tapped in the foreign language class through topics and materials from this field. Exploiting the naturalist intelligence in the foreign language classroom is relevant to learners of all ages and at all language levels. MI comes with strategies to remedy the naturalist's problem and suggests the following:

- **Nature walks**
- **Field trips**
- **Ecology projects**
- **Nature videos**
- **Eco-study**

In addition to other Activities catering for naturalist intelligence: Creating observation and describing changes in the local or global environment, caring for pets, wildlife, gardens, parks, telescopes, microscopes ,drawing or taking pictures of natural objects, outdoor activities, natural and environmental materials and concepts, changing words in brackets into correct forms, classifying and categorizing activities, background music in the form of sounds created in the natural world.All things related to nature can improve speaking and writing

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skills for example explaining more about writing map, natural words or writing a paragraph about their country and their city.

2.2 A sample of MI-based lesson plan :

Lesson Plan

Unit 1: Exploring The Past “ Ancient Civilizations”

Part One: Language Outcomes.

Sequence : Listen and Write.

Time : 2 hours.

Level : 3rd year foreign languages .

Multiple Intelligences: Visual, interpersonal, verbal, intrapersonal, Kinesthetic .

Materials: Textbook , projector, video, maps pictures, photographs ,symbols and blackboard.

Aims:

- To access and activate students background knowledge of ancient civilizations.
- To listen, respond, inform , narrate, share ideas and make students cooperate together
- To give a talk and compare changes in lifestyles.
- To increase students understanding of the pronunciation of strong form and weak form of was/were.
- To read the passage silently to look at its content and form.

Getting started:

Warming up :

Aims:

- Interaction about the ancient civilizations.
- To access and activate students background knowledge of ancient civilizations.

Task1 (p15) :

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Procedure:1 Show students photographs ,maps ,pictures and symbols on the blackboard from ancient civilizations that illustrate aspects of life as it was lived in ancient times and answer the questions that follow .

Procedure:2Ask students to tell you individually what they think about these illustrations can tell us about life in ancient times.

Let's hear it:

Aims:

- To listen and to respond .
- To increase students' understanding of the pronunciation of strong form and weak form of was/were.

Task 1 (p16)

Procedure 1 : Ask your students to listen carefully to the video about Ancient Civilizations and pay attention to the pronunciation then note down the most important civilizations, places, wars, conflicts and the most important events .

After listening :

Aim :

- To access and activate students background knowledge of ancient civilizations.
- To listen, respond, inform , narrate, share ideas and make students cooperate together
- To read the passage silently to look at its content and form.
- To give a talk and compare changes in lifestyles

Task 2 (p16)

Procedure 1 : Once the students have heard the video , put students into pair or small groups that will work on separate sections to read the text silently then writing down a coherent paragraph about an ancient civilisation that mentioned in the video in which they can narrate , inform and share their ideas and information they know about that civilization

Procedure 2: Ask students to volunteer to read the paragraph orally, moving from left to right. and the best paragraph will be written on the board.

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Before shifting to the conclusion, we should remind teachers that after the presentation of any lesson, they have to evaluate their lesson planning and teaching and check whether they are efficient and successful or not. The following checklist would be very appropriate:

	Yes , Good to excellent	Yes, Average to adequate	No, needs improvement	Not applicable
.Does the teacher demonstrate interest in and concern for each student?				
Are the students comfortable and relaxed with the teacher and each other?				
Do the students know each other by name and enjoy exchanging information?				
Does the teacher use the physical environment to enhance language learning and social interaction?				
Is appropriate use of language skills required in this lesson?				
Are audio-visual aids used to enhance the lesson?				
Is there appropriate variation in input and output?				
Does the teacher appropriately use techniques and drills to maximize student talk time and minimize teacher talk time(TTT?				
Does the teacher develop appropriate tasks for pairs and groups of students to maximize student participation and lessen teacher domination?				

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Does the teacher make use of games, songs, competitions to enhance student multiple intelligences?				
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Table 3.6 : An adapted lesson evaluation checklist presented in Nicholson-Nelson (1998).

Conclusion

MI theory is a framework by which teachers engage in creative, imaginative, thoughtful, exploratory reform, it should not be seen as rigid or prescriptive pedagogical formula. In reality, it is almost impossible to cater for all the intelligence types in each of the lessons. It takes time, patience, imagination, and creativity in order to be successful. However, as Gardner claims, “we each have a unique blend of intelligences leads to the most important implication of theory for the new millennium” (1999:45). MI approach is becoming a promising and increasingly popular approach to characterize the uniqueness of learners and to develop instruction in response to this uniqueness. Therefore, integrating MI theory in EFL classroom serves to facilitate English learning and whole person development. As a result, EFL teachers will be more rewarding and effective teachers if they take the challenge and apply MI approach to their daily teaching. Likewise, the learners will be more effective learners and fully functioning people when matched their intelligence uniqueness with the language learning

General Conclusion

Howard Gardner's Multiple Intelligences Theory allows students to realize their strengths in language learning and gives teachers the opportunity to understand the dynamics of the classroom. This theory involves the use of intelligences in students' learning to emphasize their strengths and aid success. Our present study was concerned with the investigation of integrating the Multiple Intelligences Theory in EFL classes to enhance students' learning. By means of a survey for third year foreign languages students and an interview with teachers at Abdelbaki Ben Ziane Chouaai Secondary- School. Furthermore, we have taken the responsibility of raising teachers and students' awareness about the importance of MI and its effect on classroom interaction and skills development. This work focused on the field of education in general and on English language teaching and learning in particular.

This research was a sum of three chapters. The first chapter was divided into three parts. The first part is concerned with the most important learning theories, the second part discussed The Development of Foreign Language Teaching Approaches and Methods. The third part, we tried to give a clear overview about MI theory as well as different concepts related to intelligence. It represented the field work of the study. Throughout it, we described the instrument used to collect data from EFL students through Walter McKenzie Multiple Intelligences Survey in order to identify their intelligence profiles and teachers' interview in order to investigate English teachers' perception on MI theory. The results that we have come with that in Abdelbaki Ben Ziane Chouaai Secondary- School, the teaching/ learning English is still traditional and teacher-centered. Teachers mostly follow their own perception instead of their training on different teaching learning approaches. Moreover, implementation of MI theory is largely hindered due to the misconception about the core ideas of MI theory among the teachers. Besides, teachers' low level motivation, large class size, traditional evaluation system work as barriers in implementing MI theory in classroom which leads students not to be interested in the classroom. The findings of the survey showed that the majority of students have musical intelligence as the predominant intelligence among them which seems as a surprise to their English teachers. But, unfortunately, most of the teachers do not consider planning and implementing instruction considering the individualized learning styles and the unique intelligence types of students. As a result, English teachers are still hesitant to take the bold steps to transform their classes from the old "spoon fed" and "one size fits all"

General Conclusion

system of teaching to the dynamic application of MI principles. The reason for this is that it involves more work on their part and develop their teaching strategies to build autonomous and long-life EFL learners. The results of this study led us in the third chapter to suggest some practical implications for teachers , as well as , some teaching strategies based on MI theory because taking it into consideration in shaping ,adapting existing materials and planning lessons for students might improve learning and teaching processes, encourage students, and raise their interest and motivation.

Bibliography:

Altan, M. Z. (2001). The theory of multiple intelligences: What does it offer EFL Teachers? MET, 10(1), 52-56.

Armstrong, T. (1994). Multiple Intelligences in the Classroom. Alexandria, VA: ASCD.

Armstrong, T. (2000). Multiple intelligences in the classroom (2nd ed.). Arlington, VA: Association for Supervision and Curriculum Development.

Armstrong, T. (2000). Multiple intelligences. http://www.thomasarmstrong.com/multiple_intelligences.htm

Bellanca, J., Chapman, C., & Swartz, E. (1994). Multiple Assessments for Multiple Intelligences. Palatine, IL: IRI/Skylights

Berman, Michael. 2002. A Multiple Intelligences Road to an ELT Classroom. Carmarthen: Crown House Publishing. Second edition.

Bonn, K. L., & Grabowski, N. L. (2001). Generative Learning theory: A practical cousin to constructivism. Paper presented at the Joint Meeting of Mathematics, New Orleans, LA.

Bruner, J. S. (1961). The act of discovery. Harvard Educational Review, 31(1), 21–32.

Campbell, L. (1997). Variations on a Theme- How Teachers Interpret MI Theory. Educational Leadership, 55(1), 14–19.

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (1996). Teaching Pronunciation: A Reference for Teachers of English to Speakers of Other Languages. Cambridge: CUP.

Christison, M. (1997). Teaching and learning language through Multiple Intelligence. TESOL Journal, 6 (1), 10-14.

Christison, M. (1998). An introduction to multiple intelligence theory and second language learning. In J. Reid (Ed.), Understanding learning styles in the second language classroom (pp. 3-13). New Jersey: Prentice Hall, Inc

Christison, M. A. & Kennedy, D. (1999). Multiple intelligences: Theory

Christison, M., A. (1998). Applying Multiple Intelligences Theory in Preservice and Inservice TEFL Educational Programs, Forum, 36 (2), 2-20 307 279

Christison, M.A. (1998a). Applying multiple intelligences theory: in preservice and inservice TEFL education programs. English Language Teaching Forum 36(2) (April-June): 2-13.

Bibliography

Christison, M.A. (1998c). An introduction to multiple intelligence theory and second language learning. In J. Reid (Ed.). *Understanding Learning Styles in the Second Language Classroom* (pp. 1-14). Upper Saddle River: Prentice Hall Regents.

Combridge Cambridge Advanced Learner's Dictionary.

Edge, J. 1992. *Cooperative Development: Professional self-development through cooperation with colleagues*. Harlow: Longman.

Foerster, H. von. (1984). On Constructing a Reality. In P. Watzlawick (Ed.), *The Invented Reality* (41–62). New York: W. W. Norton.

Gardner, D (1996). "Self-assessment for Self-Assess Learners." *TESOL Journal* 5 (1),18-23.

Gardner, H (1999). *Intelligence reframed multiple intelligences for the 21 st century*. New York, NY: Basic Books.

Gardner, H. (1 993b). *Creating Minds*. NY: Basic Books.

Gardner, H. (1982). *Art, Mind and Brain*. New York: Basic Books.

Gardner, H. (1983). *Frames of Mind*. New York: Basic Books.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligence*. New York: Basic Books.

Gardner, H. (1993). *Multiple intelligence: The theory in practice*. New York: Basic Books.

Gardner, H. (1995). *Are there additional intelligences? The case for the naturalist intelligence: Howard Project Zero*. Cambridge, MA: President Fellows of Howard College.

Gardner, H. (1999). *The disciplined mind: What all students should understand*. New York, NY: Simon and Schuster.

Gardner, H. (2000). *Intelligence reframed*. New York, NY: Basic Books.

Gardner, R. C. & Lambert, W.E. (1972). *Attitude and motivation in second language learning*. Newbury: Massachusetts.

GÖĞEBAKAN, Derya(2003). *How Students' Multiple Intelligences Differ in Terms of Grade Level and Gender*. Unpublished MA Thesis. MSc Department of Educational Sciences. September 2003, 112 pages.

Guilford, J. P . 1967, *The Nature of Human Intelligence*, New York, McGraw-Hill

Hall. *Psychological Review Monograph Supplement* 2 (4, Whole No. 8). Publishing.

Harmer, J. (2004). *The Practice of English Language Teaching*, Longman.

Hutchins, E. (2000). *Distributed Cognition*. IESBS, 1–10.

Bibliography

- Kolb, D.A. (1984). *Experiential learning*. New Jersey: Englewood Cliff,
- Krashen, S.D. 1983. Quoted in Rod Ellis. 1999. *Understanding Second Language Acquisition*. Oxford University Press
- Kuhlmann, A. M., & Sauter, W. (2008). *Innovative Lernsysteme. Kompetenzentwicklung mit Blended Learning und Social Software*. Hamburg: Springer.
- Larsen-Freeman, 2000. *Techniques and Principles in Language Teaching*. Oxford: Oxford University Press.
- Lave, J, Wenger, E. (1991) *Situated Learning. Legitimate peripheral participation*, Cambridge: University of Cambridge Press
- Lazear, D. (1993). *Seven pathways of learning: teaching students and parents about multiple intelligences*. Tucson, AZ: Zephyr Press.
- Lazear, D. (1999). *Multiple Intelligences approaches to assessment*. Tucson, AZ: Zephyr Press
- Lazear, D. (2000). *The rubrics way: Using MI to assess understanding* Tucson, AZ: Zephyr Press.
- Mandl, H., Kopp, B., & Dvorak, S. (2004).
- Marks-Tarlow, T. (1995). *Creativity inside out: Learning through multiple intelligences*. Reading, MA: Addison-Wesley
- McKenzie, W. (1999). *Multiple intelligences survey*. Retrieved on September 10, 2003 from the World Wide Web: <http://surfaquarium.com/Miinvent.htm>
- Merriam-Webster Online Dictionary .2004. <http://www.m-w.com/cgi-bin/dictionary> New York: Scholastic Professional Books.
- Nicholson-Nelson, K. (1998). *Developing Students' Multiple Intelligences*.
- Nicholson-Nelson, K. 1998. *Developing Students' Multiple Intelligences*. New York: Scholastic Professional Books.
- Nunan, D. (2000). *Go for it! 4*. Boston: Heinle & Heinle Publishers
- Oxford Advanced Learner's Dictionary 2016
- Palmberg, Rolf .*Developing Teachers.com Newsletter-April 2004 - issue 4/04* http://www.developingteachers.com/newsletters/news_april2004.htm practice in adult ESL.
- Reinmann-Rothmeier, G. (2003). *Didaktische Innovation durch Blended Learning*: Huber.
- Renkl, A., Gruber, H., Mandl, H. (November 1996): *Situated learning in instructional settings: From euphoria to feasibility*. (Forschungsbericht Nr. 74). München: Ludwig-Maximilians-Universität, Lehrstuhl für

Bibliography

- Richard, J. C., & Rodgers T. S. (2003). Approaches and methods in language teaching (2nd ed.). Cambridge: Cambridge University.
- Richards, J.C. 1990. The Language Teaching Matrix. Cambridge: Cambridge University Press.
- Seufert, S., Back, A., & Häusler, M. (2001). E-Learning – Weiterbildung im Internet: Das „Plato-Cookbook“ für internetbasiertes Lernen. Kilchberg.
- Shumway, J. M., & Harden, R. M. (2003). AMEE Guide No. 25: The assessment of learning outcomes for the competent and reflective physician. *Medical Teacher*, 25(6), 569–584.
- Silver, H., Strong, R. & Perini, M. (1997). Integrating Learning Styles and Multiple Intelligences. *Educational Leadership*. September 1997. p. 22-27.
- Seliger Herbert and Shohamy Elana .2008 .Second Language Research Methods.OUP
- Skinner, B. F. (1938). The behavior of organisms: An experimental analysis. New York: Appleton-Century-Crofts.
- Skinner, B. F. (1953). Science and human behavior. New York: Macmillan.
- Skinner, B. F. (1969). Contingencies of reinforcement. New Jersey: Prentice-Hall.
- Snider, D. P. (2001). Multiple Intelligences Theory and Foreign Language Teaching. Unpublished doctoral dissertation, University of Utah.
- Sternberg, R. (1996). Successful Intelligences: how practical and creative intelligence determine success in life. NY: Simon and Schuster.
- Tanner, R. (2001). “Teaching intelligently.” *English Teaching professional* 20.
- Thorndike, E. L. (1898). Animal intelligence: An experimental study of the associative processes in animals.
- Wittrock, M. C. (1974a). Learning as a generative process. *Educational Psychologist*, 19(2), 87–95.
- Wittrock, M. C. (1974b). A generative model of mathematics education. *Journal for Research in Mathematics Education*, 5(4), 181–196.
- Wittrock, M. C. (1989). Generative processes of comprehension. *Educational Psychologist*, 24,
- Wittrock, M. C. (1991). Generative teaching of comprehension. *Elementary School Journal*, 92, 167–182.
- Yin, R. K. (2003). Case study research: Design and methods (3rd ed.). Thousand Oaks, California: Sage Publications.

Bibliography

Websites:

www.wordnet.princeton.edu/perl/webwn

www.medaus.com/p/147.html

www.intelligent-systems.com.ar/intsys/.htm

www.neiu.edu/~dbehrlic/hrd408/.htm

<http://surfaquarium.com/Miinvent.htm>

www.m-w.com/cgi-bin/dictionary

[/www.thomasarmstrong.com/multiple-intelligences.htm](http://www.thomasarmstrong.com/multiple-intelligences.htm)

http://www.developingteachers.com/newsletters/news_april2004.htm

..http://dictionary.cambridge.org/dictionary/british/learn.

Merriam-Webster Online Dictionary .2016. <http://www.m-w.com/cgi-bin/dictionary>

www,Tefl.net/teacher-training/

<http://www.agsm.edu.au/bobm/teaching/SimSS/glossary.html>

<https://www.learning-theories.com/vygotskys-social-learning-theory.html>

<http://www.businessballs.com/kolblearningstyles.htm>

Appendices

Appendix (A)

Multiple Intelligences (M.I.) Inventory (The Original Inventory)

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Complete each section by placing a **“1”** next to **each** statement you feel accurately describes you. If you do not identify with a statement, leave the space provided blank. Then total the column in each section.

Section 1

- _____ I enjoy categorizing things by common traits
- _____ Ecological (environmental) issues are important to me
- _____ Hiking and camping are enjoyable activities
- _____ I enjoy working on a garden
- _____ I believe preserving (saving/keeping) our National Parks is important
- _____ Putting things in hierarchies (system of levels) makes sense to me
- _____ Animals are important in my life
- _____ My home has a recycling system in place
- _____ I enjoy studying biology, botany and/or zoology
- _____ I spend a great deal of time outdoors

Section 2

- _____ I easily pick up on patterns
- _____ I focus in on noise and sounds
- _____ Moving to a beat is easy for me
- _____ I've always been interested in playing an instrument
- _____ The cadence (rhythm/speed) of poetry intrigues me
- _____ I remember things by putting them in a rhyme
- _____ Concentration is difficult while listening to a radio or television
- _____ I enjoy many kinds of music
- _____ Musicals are more interesting than dramatic plays
- _____ Remembering song lyrics is easy for me

Section 3

- _____ I keep my things neat and orderly
- _____ Step-by-step directions are a big help
- _____ Solving problems comes easily to me
- _____ I get easily frustrated with disorganized people
- _____ I can complete calculations quickly in my head
- _____ Puzzles requiring reasoning are fun
- _____ I can't begin an assignment until all my questions are answered
- _____ Structure helps me be successful
- _____ I find working on a computer spreadsheet or database rewarding
- _____ Things have to make sense to me or I am dissatisfied

Section 4

- _____ It is important to see my role in the "big picture" of things
- _____ I enjoy discussing questions about life
- _____ Religion is important to me
- _____ I enjoy viewing art masterpieces
- _____ Relaxation and meditation exercises are rewarding
- _____ I like visiting breathtaking sites in nature
- _____ I enjoy reading ancient and modern philosophers
- _____ Learning new things is easier when I understand their value
- _____ I wonder if there are other forms of intelligent life in the universe
- _____ Studying history and ancient culture helps give me perspective

Section 5

- _____ I learn best interacting with others
- _____ "The more the merrier"
- _____ Study groups are very productive for me
- _____ I enjoy chat rooms
- _____ Participating in politics is important

_____ Television and radio talk shows are enjoyable

_____ I am a “team player”

_____ I dislike working alone

_____ Clubs and extracurricular activities are fun

_____ I pay attention to social issues and causes

Section 6

_____ I enjoy making things with my hands

_____ Sitting still for long periods of time is difficult for me

_____ I enjoy outdoor games and sports

_____ I value non-verbal communication such as sign language

_____ A fit body is important for a fit mind

_____ Arts and crafts are enjoyable pastimes

_____ Expression through dance is beautiful

_____ I like working with tools

_____ I live an active lifestyle

_____ I learn by doing

Section 7

_____ I enjoy reading all kinds of materials

_____ Taking notes helps me remember and understand

_____ I faithfully (routinely/always) contact friends through letters and/or e-mail

_____ It is easy for me to explain my ideas to others

_____ I keep a journal

_____ Word puzzles like crosswords and jumbles are fun

_____ I write for pleasure

_____ I enjoy playing with words like puns, anagrams and spoonerisms

_____ Foreign languages interest me

_____ Debates and public speaking are activities I like to participate in

Section 8

_____ I am keenly aware of my moral beliefs

- _____ I learn best when I have an emotional attachment to the subject
- _____ Fairness is important to me
- _____ My attitude effects how I learn
- _____ Social justice issues concern me
- _____ Working alone can be just as productive as working in a group
- _____ I need to know why I should do something before I agree to do it
- _____ When I believe in something I will give 100% effort to it
- _____ I like to be involved in causes that help others
- _____ I am willing to protest or sign a petition to right a wrong

Section 9

- _____ I can imagine ideas in my mind
- _____ Rearranging a room is fun for me
- _____ I enjoy creating art using varied media
- _____ I remember well using graphic organizers
- _____ Performance art can be very gratifying
- _____ Spreadsheets are great for making charts, graphs and tables
- _____ Three-dimensional puzzles bring me much enjoyment
- _____ Music videos are very stimulating
- _____ I can recall things in mental pictures
- _____ I am good at reading maps, atlases and blueprints

Appendix (B)

Multiple Intelligences Inventory(The Adapted Inventory)

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Complete each section by placing a “1” next to each statement you feel accurately describes you. If you do not identify with a statement, leave the space provided blank. Then total the column in each section.

<p style="text-align: center;"><u>Section 1</u></p> <p>_____ Ecological issues are important to me</p> <p>_____ I enjoy working in a garden</p> <p>_____ I believe preserving our National Parks is important</p> <p>_____ Animals are important in my life</p> <p>_____ I enjoy studying biology, botany and/or zoology</p> <p>_____ TOTAL for Section 1</p>	<p style="text-align: center;"><u>Section 2</u></p> <p>_____ I focus in on noise and sounds</p> <p>_____ I enjoy making music</p> <p>_____ I remember things by putting them in a rhyme</p> <p>_____ Listening to sounds in nature can be very relaxing</p> <p>_____ Remembering song lyrics is easy for me</p> <p>_____ TOTAL for Section 2</p>
<p style="text-align: center;"><u>Section 3</u></p> <p>_____ Problem solving comes easily to me</p> <p>_____ I get easily frustrated with disorganized people</p> <p>_____ I can complete calculations quickly in my head</p> <p>_____ Logic puzzles are fun</p> <p>_____ Structure is a good thing</p> <p>_____ TOTAL for Section 3</p>	<p style="text-align: center;"><u>Section 4</u></p> <p>_____ I enjoy discussing questions about life</p> <p>_____ Religion is important to me</p> <p>_____ Relaxation and meditation exercises are rewarding</p> <p>_____ I like traveling to visit inspiring places</p> <p>_____ I enjoy reading philosophers</p> <p>_____ TOTAL for Section 4</p>
<p style="text-align: center;"><u>Section 5</u></p> <p>_____ I learn best interacting with others</p> <p>_____ I often serve as a leader among peers</p> <p>_____ Study groups are very productive for me</p> <p>_____ Friends are important to me</p> <p>_____ I dislike working alone</p> <p>_____ TOTAL for Section 5</p>	<p style="text-align: center;"><u>Section 6</u></p> <p>_____ I enjoy making things with my hands</p> <p>_____ Sports are a part of my life</p> <p>_____ I use gestures and movement when I communicate</p> <p>_____ I love to dance</p> <p>_____ Inactivity can make me more tired than being busy</p> <p>_____ TOTAL for Section 6</p>
<p style="text-align: center;"><u>Section 7</u></p> <p>_____ Foreign languages interest me</p> <p>_____ I enjoy reading books, magazines and web sites</p> <p>_____ It is easy for me to explain my ideas to others</p> <p>_____ I write for pleasure</p> <p>_____ I enjoy public speaking and participating in debates</p> <p>_____ TOTAL for Section 7</p>	<p style="text-align: center;"><u>Section 8</u></p> <p>_____ I like to be involved in causes that help others</p> <p>_____ Fairness is important to me</p> <p>_____ Social justice issues interest me</p> <p>_____ Working alone can be as productive as working in groups</p> <p>_____ I need to know why I'm doing something before I do it</p> <p>_____ TOTAL for Section 8</p>
<p style="text-align: center;"><u>Section 9</u></p> <p>_____ Rearranging a room and redecorating are fun for me _____ I can recall things as ment</p> <p>_____ I can visualize ideas in my mind _____ A music video can make me more interested in a song</p> <p>_____ Charts, graphs and tables help me interpret data _____ TOTAL for Section 9</p>	

Student Name:.....

Analyzing Your Strengths

Score

5									
4									
3									
2									
1									
0	Sec 1	Sec 2	Sec 3	Sec 4	Sec 5	Sec 6	Sec 7	Sec 8	Sec 9

In the chart above, shade in the boxes that correspond to the score you received for each section.

This chart is designed to show you, and your teacher, the way in which you learn best. There are not any right or wrong answers. This is simply a diagnostic test of your intelligence type and your learning style to guide instruction.

Key:

Section 1 – This reflects your Naturalist strength

Section 2 – This suggests your Musical strength

Section 3 – This indicates your Logical strength

Section 4 – This illustrates your Existential strength

Section 5 – This shows your Interpersonal strength

Section 6 – This tells your Kinesthetic strength

Section 7 – This indicates your Verbal/Linguistic strength

Section 8 – This reflects your Intrapersonal strength

Section 9 – This suggests your Visual strength

Remember:

- Everyone has all the intelligences!
- You can strengthen an intelligence!
- This inventory is meant as a snapshot in time – it can change!
- M.I. is meant to empower, not label people!

Thank you very much for your cooperation and contribution to this research.

Appendix (C)



Teachers' Interview



Researcher: *Ferraoun Bouteina*

Years of teaching experience:.....

“Completion and return of the interview implies your consent to use the data for research purposes.”

Please, read the following questions and answer them to best describe you and your teaching experience. Feel free to add any relevant information for each question.

1. Do you discuss with your students how they prefer to learn?

Yes

☐

No

☐

Justify?.....
.....

2. Do you intentionally plan your instruction to meet the learning styles of your students? If yes , How so?

Yes

☐

No

☐

Justify?.....
.....

3. Describe your teaching style and how you accommodate the different learning styles within your classes

Justify?.....
.....

4. Do you incorporate music into your lessons ?

Yes

☐

No

☐

Justify?.....
.....

5. Do you use multiple forms of graphics in your lessons ?

Yes

☐

No

☐

Justify?.....
.....

6. Do you provide physical movement opportunities during class time ?

Yes

No

☐☐

Justify?.....

7. Are you aware of your students` potentials, strong/weak intelligences?

Yes

No

☐☐

Justify?.....
.....

8. How would you handle different ability levels in your classroom?

.....
.....
.....

9. To what extent do the materials (e.g. course book, workbook, textbook etc.) you use address to different intelligence types?

.....
.....

10. Do you adapt the existing materials on the basis of your students different intelligence types?

Yes

No

☐☐

Justify?.....
.....

11. Do you allow your student working together in groups in your classroom to solve problems in their class work ?

Yes

No

☐☐

How?.....
.....

12. To what extent do the activities you use in the classroom address different intelligence types? In other words, is there a variety in terms of intelligences emphasized?

.....
.....

13. Would you rather try new teaching strategies or apply new theories which work best for you?

Yes No

☐☐

Justify??.....

14. Do you know Howard Gardner`s Multiple Intelligences Theory?

Yes

No

☐☐

.....

Thank you very much for your cooperation and contribution to this research.