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Implementing Multiple Intelligences Theory in EFL Classes

The case of Third Year Scientific Stream Pupils at Mohamed Drissi Secondary School, Foughala,Biskra

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Dedication

My dear parents, Souria and Salim I am grateful to all what have you done for me. Thank you so much for your Love, Care, Support, and Protection

To you, I dedicate this work

To the most precious people to my heart;

To my husband Fouaz, I thank Allah for having you

To my beloved brothers: Mahmoud and Islam

To my sweetest sisters: Hanen and Sana

To my best cousin: Hamza, thank you a lot for your helping hands

This work also dedicated to my grandmother Halima, thank you Mama for your prayers

To my best friends: Zineb, Khadidja, Sara, and Romaissa

To all members of my family Saci, Benzemam, and Bellaggoune

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Abstract

The main purpose of teaching process is to meet the needs of the different learners in the classroom. The present research sets out to investigate the application of multiple intelligences theory in EFL classes. This study was conducted at Mouhamed Drissi secondary school in Foughala, Biskra, students of third year scientific stream. To meet the purpose of our study, different data tools were used as the questionnaire, classroom observation. The first questionnaire was directed to the teachers of English. It concerns teachers' knowledge about implementing multiple intelligence theory in their classrooms. The second questionnaire was administered to thirty (n=30) students of third-year scientific stream to identify the different types of intelligence profiles in the same classroom. Moreover, the purpose of the checklist observations is to examine if the teacher applies the activities that are related to multi-intelligences theory. From the analysis of the collected data, results reveal that different intelligence profiles are included in the same classroom which indicates that there are different learning styles. Also, several activities under each category of intelligence are applied in every English session.

List of Abbreviations

MI : Multiple intelligence

IQ : Intelligence quotient

G: General factor

SAT: Scholastic assessment test

EFL: English as a foreign language

Q: Question

TEFL: Teaching English as a foreign language

MIDAS: Multiple intelligences developmental assessment scales

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General Introduction

Because English language has become one of the most important language in the world, many educators attempt to find new classroom techniques, instructional materials, and new teaching methods. Their aim is to facilitate language learning for students, by involving them in the classroom activities, as well as to provide teachers of foreign languages with the appropriate methods and techniques, to enable them to address the different types of learners in the same classroom. Moreover, make the teachers able to present the course successfully. The current dissertation attempts to present an alternative theory that concerns both learning styles and teaching strategies, which is the theory of multiple intelligences (MI). This research describes the different types of multiple intelligences theory that suggested by Howard Gardner. Also shows the strategies used by the teachers to apply this theory within the field of teaching English as a foreign language.

1. Statement of the Problem

Teaching English as a foreign language is considered as a challenge because the main issue is how the teachers can meet the needs of the different types of learners in order to provide each one with 'the best shoe'. In some schools, generally the English course is presented in the same way, that means 'one-size-fits-all '. This standard approach may leave some students behind because they feel that they are not able to comprehend what the teacher says. Most teachers do not pay attention to the individual differences and the different human intelligences. Such a lack of paying attention for the individuals' multiple intelligences in the classroom may create uncomfortable learners, and will be as an obstacle to the development of the learning process.

2.Aims of the Research

This study aims at:

1.Using multiple intelligences (MI) theory as a guide to create effective classroom activities.

2.Enhancing learner's comprehension of English language.

3. Providing EFL teachers with some teaching strategies

3. Significance of the Study

This study contributes in the development of teaching strategies and helping the learners to progress their English language, throughout the usage of different activities. Also, it seeks to highlight the benefits of using multiple intelligence activities in the classroom as a way to help the students to develop their English language. A further contribution of this study is to draw teachers' attention to the diversity of students' intelligence in the same classroom.

4. Research Questions

This study investigates the following questions:

Q1: What are the perceptions of the teachers regarding the multiple intelligences(MI) theory and its application in their classes?

Q2: How can teachers implement multiple intelligences theory in the class to reach a good result?

Q3: Does the application of multiple intelligences (MI) theory in the classroom lead to greater student's achievement?

5. Research Hypothesis

The following hypothesis is proposed to conduct the research:

- If EFL teachers implement multiple intelligences theory (MI) in their classes, they would help the students to develop their language.

6. Methodology and Means of Research

In order to validate our research hypothesis, two data collection tools will be used. First, two separate questionnaires for both teachers of English, and students of third year scientific stream at Mohammed Drissi secondary school. The teachers' questionnaire concerns their perceptions about the application of multiple intelligences theory in their classroom. To identify the intelligence profiles of the participants, Mc Kenzie's (1999) questionnaire will be used. It represents forty statements that are related to each type of intelligence suggested by Gardner. Second, classroom observation to examine the different activities that the teachers implement in order to help students develop their English language.

7. Population and Sample

The target population in this research concerns both EFL teachers and students of third year scientific stream at Mohamed Drissi secondary school in Foughala, a sample of thirty (n=30) students and, three teachers will be selected randomly.

8.The Structure of the Study

The present dissertation is divided into three basic chapters. The first two chapters deals with our variables and, the third one is the field work of this study. Chapter one is divided into three sections, the first one comprises an overview about intelligence. The second section, displays multiple intelligences theory, including its definition and types. Moreover, the third section raises the theoretical basis for multi-intelligences theory. This chapter also presents the relationship between (MI) theory and learning styles. The second chapter is divided into two sections, the first one talks about the (MI) theory and the student. The second section deals with the application of multiple intelligences theory on language teaching. Then, it highlights the benefits of implementing multiple intelligences theory in EFL classes. The third chapter analyzes and discusses the collected data from the checklist and the two questionnaires. This chapter also, presents the findings and the discussion of the outcomes.

9. Literature Review

The term Intelligence is considered as a polymorphous concept, everyone defines it according to specific domain. Intelligence can be seen as "The ability to use memory, knowledge, experience, understanding, reasoning, imagination and judgment in order to solve problems and adapt to new situations"(All Words Dictionary, 2006).It is the capacity of having some skills that help in everyday situations. New theory has emerged from recent cognitive research by Howard Gardner (1983), who declares that humans have different forms of intelligences or intellectual strengths and that each one of these strengths has its own developmental path

> we are all able to know the world through language, logical-mathematical analysis, spatial representation, musical thinking, the use of the body to solve problems or to make things, an understanding of other individuals, and an understanding of ourselves. Where individuals differ is in the strength of these intelligences - the so-called profile of intelligences -and in

the ways in which such intelligences are invoked and combined to carry out different tasks, solve diverse problems, and progress in various domains

This alternative perspective has criticized the traditional view of intelligence as well as old teaching strategies and techniques used in classroom that may left some students behind. It suggests that every person has different intelligences which are eight in number, those intelligences can be changed and developed any time. There are many studies that have been conducted to investigate the application of multiple intelligences theory in language teaching. Armstrong (2000) studied the eight ways of learning that are related to each type of intelligence. Similarly, Christison and Kennedy (1999) highlighted the role of multiple intelligences activities in improving students' language. Additionally, Berman (1998) proposed a wide range of activities under each type of intelligence. In light with these views, we attempt through our research to defend the validity of some activities that are related to the theory of multiple intelligences.

Chapter One

Chapter One

Multiple Intelligences Theory

Section one: General Overview of Intelligence

Introduction

There are several theories that focuses on the ways of learning and the methods uses by the teachers in order to present the course in a successful way, as well as the need to be familiar with the different learners in the same classroom. Multiple intelligences theory is one of them. This theory takes place in the framework of teaching foreign languages when it was suggested by Howard Gardner, of Harvard University, for the first time in his book, Frames of Mind (1983). The main idea of multi-intelligences theory is that human being does not have only an intellectual ability, but also have several types of intelligences, including linguistic, mathematical, musical, kinesthetic, spatial, naturalist, intrapersonal, interpersonal, and existential intelligence. According to Gardner all students possess the eight intelligences but in different levels. Gardner postulates that this theory helps second language learners develop their intelligence and, provides teachers of English with the appropriate methods that aid them present the lesson in a very successful way. This chapter attempts to provide a general overview about the different theories of intelligence. It also sheds light on the theory of multiple intelligences (MI), and its major types. Furthermore, it shows the theoretical basis for multiple intelligences theory. Additionally, it demonstrates the relation between learning styles and multiple intelligences theory.

1. Theories of Intelligence

Since the late nineteenth century and early twentieth century, different theories about intelligence have been emerged and discussed, and many attempt to define and measure human beings' intellectual competences. These theories have different perspectives concerning the term intelligence, the following are some of them:

1.1. The General Factor Theory

The first emergence of this theory was in 1904 by an English psychologist, Charles Spearman (1904), who believes that there is a general intelligence which is called the (G) factor, or general factor, it is a universal inborn capacity that leads to create success in daily life. This intelligence was defined operationally as the ability to answer items on an IQ tests. According to him, the (G) factor is responsible for the performance on mental capacity tests. Furthermore, the general factor allows researchers to measure common abilities.

1.2. The Primary Mental Abilities

The theory of primary mental abilities was first suggested by Louis Thurstone, as a challenge to Spearman's view of intelligence. According to Thurstone (1924), intelligence does not emerge from a general factor as what Spearman pointed out, but it arises from seven separate factors, called the primary abilities. Thurstone (1938) originally posited seven factors, which are described as follows:

- Word fluency: the ability to think and use different vocabularies rapidly
- Number factor: the potentiality to deal with numbers
- Spatial visualization: the ability to perceive spatial relations
- Inductive reasoning: the capacity to think in logical way
- Memory factor: it is the ability to remember
- Verbal comprehension: it is the ability to understand the meanings of words
- Verbal factor: this can be found in tests that involves verbal comprehension

1.3.   Fluid and Crystallized Theory

This theory was first proposed by Raymond Cattel in (1963) and he further developed it with John Horn. The concept is used in psychology to explain human intelligence. Cattel and Horn (1967) point out that intelligence is composed of several capacities that interact together in order to produce human intelligence. Cattel (1967) believes that fluid intelligence includes such abilities as reasoning and problem solving, or it is the ability to reason and think in a logical way. For example, solving puzzles. On the other hand, Cattel (1967) states that the crystallized intelligence is the ability to use knowledge, information, and experience in a way that can be measured, it includes the amount of information that a person obtains and the different verbal

skills that the individual develops overtime. Both the fluid and crystallized intelligence can be increased throughout childhood and adolescence.

1.4. Intelligence Tests

Many psychologists have attempted to define and measure human cognitive abilities. As Alfred Binet, a French psychologist who created the first practical intelligence test in 1906, known as intelligence quotient (IQ) test which is "founded on the idea that intelligence is a single, unchanged inborn capacity"(Richards and Rodgers, 2014, p.230). This traditional view of intelligence was based on psychometric test which assists the idea of the existence of a fixed and single intelligence. It was originally developed in order to make a prediction about the success or failure of pupils in the primary grades of schools. The IQ test was modified to best suit American society in the1920s and 1930s and became known as Stanford-Binet test (Gardner,1999). Furthermore, other tests were formed to measure human being abilities such as Scholastic Assessment Test (SAT), is also similar to IQ tests (Gardner,1999). Gardner (1999,13) states that

> so long as these tests continued to do what they were supposed to do-that is, yield reasonable predictions about people's success in school, it did not seem necessary or prudent to probe too deeply into their meaning or to explore alternative views of what intelligence is or how it might be assessed.

According to Gardner (1999), the IQ test cannot predict the success of the individual outside school or in daily life, and they cannot determine how intelligent the individual is. " The IQ test measure only logic and language, yet the brain has other equally important types of intelligence"(Richards and Rodgers,2014, p.230). According to them, there are other significant kinds of intelligence that should be counted.

1.5. Howard Gardner Theory

In the early 1980s, Howard Gardner redefined the term of intelligence, in his book entitled Frames of Mind, second edition. Gardner (1984) considers that intelligence as the capacity of solving difficult problems that the persons face in their daily life. It is also having the ability of

acquiring new knowledge. According to him, intelligence is a variety of talents not a single entity. He also defines intelligence as the ability to handle new situations and learn from them (Gardner,1983). Intelligence is to do something useful in the society, and the intelligent person is who has the ability to face and solve problems in life.

Section two: Multiple Intelligences Theory

2. Definition of (MI) Theory

Gardner suggests a new alternative view called multiple intelligences (MI) theory when his book frame of mind was first published in 1983. This theory was a result of his dissatisfaction with the traditional view of intelligence or the traditional (IQ) test. Gardner believes that human intelligence cannot be measured by the traditional test, which is the (IQ) test, and he confirms that intelligence is not only a single property of the mind but human mind is made up of different intelligences. Gardner sees that the person who is not strong in mathematics, it is not necessary to be not intelligent because that same person could be intelligent in another domain (Botelho,2003). Moreover, as Puchta (2005, p.5) mentions" Gardner (1983) has clearly shown that there is no such thing as a single intelligence, unitary mental capability that can be called intelligence, but there are instead multiple intelligences" (cited in Gangi, 2011). Gardner (1983) believes that each person has at least eight intelligences that are combined in different way. Thus, each one has several intelligence profiles which combine all the types of intelligence. Gardner (1993) supposes that human intelligence profile can be enhanced through education. Gardner (1999, p.34) states that the individuals' potentials can be activated depends on a number of different aspects such as "the value of a particular culture, and the personal decision made by the individuals and/or their families, schoolteachers, and others". In his book frames of mind (1983), Gardner posits the eight different intelligences and gives a clear description for each type. In the late nineties, he added other type which was the existential intelligence. However, he has recognized only eight intelligences. Gardner multiple intelligences are:

3.1. Verbal/linguistic intelligence

Linguistic intelligence is the ability to express and appreciate complex meaning by the use of language. Accordingly, Armstrong (1994, p.2) proposes a comprehensive explanation of the

linguistic intelligence which is "the capacity to use words effectively, whether orally or in writing. This intelligence includes the ability to manipulate the syntax or structure of language, the phonology or sounds of language, the semantics or meanings of language, and the pragmatic dimensions or practical uses of language. Some of these uses include rhetoric, mnemonics, explanation, and metalanguage". According to him this type helps the individual to comprehend the meaning and the order of words. It is included whenever there are expressions of metaphors, similes, and analogies. Verbal intelligence involves the ability to use a language as a means to convince people, remember information, and inform others. It is also the capacity of using the language successfully and efficiently to attain some specific objectives (Gardner,1999). Moreover, according to Richards and Rodgers (2014, p.231) linguistic intelligence can be defined as "the ability to use language in special and creative ways". They see this kind of intelligence as the capacity of mastering such language and using it in a creative way as a means of communication, like orators, politicians, journalists and editors. In foreign language classroom, students with highly linguistic intelligence can express themselves orally or in writing and can easily write and read.

3.2. Logical/Mathematical Intelligence

Mathematical intelligence represents the skill of manipulating numbers and the ability to reason effectively. Lazear (1993) claims that this intelligence is related to scientific thinking. It is the ability to reason scientifically in order to solve problem. Armstrong (1994, p.2) defines the logical intelligence as:

> The capacity to use numbers effectively and reason well. This intelligence includes sensitivity to logical patterns, and relationships, statements and propositions, functions and other related abstractions. The kinds of processes used in the service of logical/mathematical intelligence include categorization, classification, inference, generalization, calculation, and hypothesis testing.

According to him, this intelligence includes the ability to think in a logical manner and deal with mathematical operations such as calculations and quantifications. In other words, it is the potentiality of using the logical thinking in different tasks and situations, and to handle with

numerical operations. Gardner (1999) describes this type as the potentiality of handling the scientific operations. Moreover, Mario and Herbert (2005, p.8) add a clear explanation for the mathematical intelligence which is:

> This intelligence can be associated with scientific thinking. It often comes into play in the analytical part of problem-solving when we make connections and establish relationships between pieces of information that may seem separate, when we discover patterns, and when we are involved in planning, prioritizing and systematizing.

Furthermore, Richards and Rodgers (2014, p.231) see the logical intelligence as "the ability to think rationally". In terms of foreign classrooms, learners with this type of intelligence can easily solve difficult problems and describe different events.

3.3. Spatial/ visual intelligence

This intelligence refers to the ability to see the visual world apparently, think visually, and direct oneself spatially. Armstrong (1994, p.2) believes that the spatial competence includes

> " the ability to perceive the visual-spatial world accurately and to perform transformation upon those perceptions. The intelligence involves sensitivity to color, line, shape, form, space, and the relationships that exist between these elements. It includes the capacity to visualize, to graphically represent visual or spatial ideas, end to orient oneself appropriately in a spatial matrix"

According to him, this intelligence involves the capacity to visualize different things mentally and graphically or use this intelligence in order to solve problems such as those are related to the environment as the usage of a map to find places in a new city. In the same scope, Gardner (2005) claims that the spatial intelligence is considered as the potentiality of visualizing what is spoken, written or read and handling them. Those who have a high developed spatial-visual intelligence are those who can learn by observing, recognizing

things and details (Campbell et al., 2004). In terms of foreign language classroom, students with this type of intelligence are those who possess the ability to produce mental imaginary pictures and who are able to learn through graphic representation.

3.4. Bodily / Kinesthetic intelligence

Bodily intelligence represents the capacity of understanding the world through body experience. Armstrong (1994) describes bodily/kinesthetic intelligence as the ability that entails the experience of using our physical skills in order to express our feelings and thoughts. It is the capacity to think in movement as expressing one's ideas by gestures or eye-contact as well as expressing thoughts and feelings by the usage of the whole of body or part of it. In the same range, Campbell et al., (2000) claim that those who have well developed kinesthetic intelligence can easily discover the world around them by different physical skills. Moreover, Richards and Rodgers (2014, p.231) see this intelligence as" having a well-coordinated body". Activities such as riding a bike, practicing sports, and driving are examples of using bodily intelligence. In terms of foreign language classroom, it can be noticed that learners with this type can easily learn through role-play, games, and other physical skills.

3.5. Musical intelligence

Musical or rhythmic intelligence entails the capacity to recognize patterns, sounds and musical instruments (Lazear, 1991). This type has defined also by Armstrong (1994, p.3) who points out that the musical intelligence involves:

> The ability to perceive, discriminate, transform, and express musical forms. This intelligence includes sensitivity to the rhythm, pitch or melody, and timber or tone color of a musical piece. One can have a figural or 'top-down' understanding of music, a formal or 'bottom-up' understanding of music

This type of intelligence refers to the ability to compose, perform, and express emotions through music. It is also being able to appreciate the various musical forms likewise, being

able to use music as a means of expressions. As Gardner (2005, p.7) claims that " the musical intelligence is the capacity to create, perform, and appreciate music". In the context of second language learning, students with musical intelligence can easily learn by using music, songs and tongue twisters. This intelligence can be used as a means of entertainment as well as a new technique for teaching. Most of us learned through the musical intelligence, as the 'A B C song' to learn alphabet or the repetition of some words or statements to keep them in mind (Lazear, 1991).

3.6. Interpersonal intelligence

Interpersonal intelligence entails the individual's abilities to comprehend others, and be sensitive to other people's emotions, moods, and behaviors (Christison,1996). In the same scope, Armstrong (1994) provides another explanation of this term, according to him interpersonal intelligence includes the ability to distinguish between the moods of other people around us and be able to deal with them effectively, as well as recognize others facial expressions and know how to respond to them. This concept refers generally to the ability to effectively communicate and react with other people. Also, it involves the capacity of being cooperative with others as well as interacts and has empathy with them. In the same scope, Snider (2001) claims that those who possess this type of intelligence are generally able to motivate the others. Consequently, people with interpersonal intelligence are those who are capable to appropriately deal with others and " work well with people" (Richards and Rodgers,2014, p.231). Second language learners with this type are able to retelling stories from several views, and discussing different topics with their peers and helping them whenever they asking for help.

3.7. Intrapersonal intelligence

The intrapersonal intelligence refers generally to the ability to comprehend one's own feelings and thoughts. Also, to know how to differentiate among one's own strengths and weaknesses (Armstrong, 1994). This personal intelligence exercises our metacognitive skills as self-knowledge, which represents our awareness and consciousness about our mental representation of ourselves. Moreover, self-control which means our ability to regulate our feelings, thoughts, and limitations in order to attain specific objectives (Herbert and Mario,

2005). The intrapersonal intelligence involves the ability to understand ourselves, and recognize our capacities and strengths as well as our fears and desires (Gardner, 1999). People of this category are capable to be knowledgeable about their deeper self as well as they are able to control their own self and life. Gardner (1999) considers this intelligence as " personal intelligence"(p.34). In the same field, Richards and Rodgers (2005) see the intrapersonal intelligence as " the capacity to understand oneself and apply one's talent successfully, which leads to happy and well-adjusted people in all areas of life"(p.231). According to them, possessing such kind of intelligence enables us to be successful person in different domains of life. In terms of second language classes, we find students with this type prefer to learn and work individually.

3.8. Naturalist intelligence

Gardner has added the naturalist intelligence to his original seven intelligences in 1996. The naturalist or what is called 'nature smart' is the ability to differentiate patterns in nature. Gardner (1999, p.48) claims that "A naturalist demonstrates expertise in the recognition and classification of the numerous species -the flora and fauna- of his or her environment" (cited in Razario, 2003). According to him, this type of intelligence refers generally to the capacity of categorizing the elements that make up environment. Furthermore, Stefanakis (2002) sees that the naturalist intelligence entails the capacity of comprehension the natural environments. Therefore, it includes the sensitivity of the individual toward the environment and the ability to comprehend the universe and all its components. In the same manner, Richards and Rodgers (2005) define the nature smart as the ability to understand and recognize the pattern of nature" (p.231). Students with this kind of intelligence prefer learning by observations and classifications.

Gardner later added another type of intelligence, which was the existential intelligence. " a concern with philosophical issues such as the status of mankind in relation to universal existence (Richards and Rodgers,2014, p.231).

3.9. Existential intelligence

A lot of people are interested in the origin of life, the meaning of death, and the truth about the existence of human (Gardner, 1999). In his book Intelligence Reframed, Gardner (1999, p.60-66) discusses existential intelligence and describes it in his words:

> The capacity to locate oneself with respect to the furthest reaches of the cosmos-the infinite and the infinitesimal– and the related capacity to locate oneself with respect to such existential features of the human conditions as the significance of life, the meaning of death, the ultimate fate of the physical and the psychological worlds, and such profound experiences as love of another person or total immersion in a work of art.

According to him, existential intelligence entails the ability to go beyond deeper questions about the existence of human being. The existential intelligence is the last type, which was suggested and described by Gardner, and at this point, it was not specifically defined.

Armstrong (2000), summarizes the eight intelligences, and provides us with detailed explanation of what each intelligence entails, its suitable symbol systems, and some related examples:

Intelligence	Core components	Symbol Systems	Exemples

Linguistic	The ability to communicate well, both orally or in writing	Phonetic languages	Writers, orators storytellers, playwrights, editors, journalists, poets, communicators
Logical/Mathematical	The capacity to discern logical or numerical operations	Computer languages	Scientist, Mathematician, Computer programmer, logician
Spatial	The ability to perceive thevisual world	Ideographic languages	Artist, architect,decorator, inventor
Bodily/Kinesthetic	The ability of controlling one's body movements	Sign languages	Athlete-dancer, Sculptor, crafts people
Musical	The capacity perform, and compose music	Musical notational systems	Composer, performer
Interpersonal	The ability to interact with the others	Social cues (facial expressions)	Counselor, political, Leader

Intrapersonal	The capacity to be knowledgeable about our strengths and weaknesses	Symbols of the self (e.g., in dreams)	Psychotherapist, religious leader
Naturalist	The ability to recognize and classify natural objects.	Species classifications systems	Naturalist, biologist, Animal activist.

Table-1- Multiple Intelligences Theory (cited in Hammoudi 2010, p.117)

Section three: The Theoretical Basis for (MI) Theory

4. Multiple Intelligences Theory Criteria

Gardner (1999) does not depend on the instruments used for the traditional tests or the psychometric tests during his research about human being intelligence. However, he relies on some specific separate criteria. The criteria proposed were based on developmental psychology, biological sciences, and traditional psychological research. Gardner set up a number of criteria that would qualify a set of skills, believes, and behaviors (Herbert and Mario,2005, p.12-15). Here are some of them:

1) Potential of isolation by brain damage

2) The existence of idiots, savants, prodigies, and other exceptional individuals

3) An evolutionary history and evolutionary plausibility

4) Support from psychometric finding

5) Support from experimental psychological tasks

6) Set of core Operations

4.1. Potential of Isolation by Brain Damage

Human intelligence will be influenced by the isolation of brain injury and degenerative disease, if someone has a problem in the Broca's area, the linguistic part of intelligence generally will be affected and serious problems will be caused such as troubles while reading ,speaking and writing, that what makes a person not professional in linguistic aspect but, that same person will still able to practise other activities and be successful in handling them, as some activities that are related to musical or kinesthetic intelligence (Christison,1998). In the same context, Mario and Herbert (2005) add another explanation to illustrate Gardner's criterion "damage to the motor cortex of the brain may leave a person paralyzed, thus knocking out their capacity to express their body-kinesthetic intelligence, while leaving the rest of the brain's thinking neurology still functioning" (p.12). Accordingly, we deduce that Christison, Herbert and Mario strongly support the idea that humans' intelligence will change if a person has serious problems in the brain.

4.2. Prodigies, Idiots' Savants and Exceptional Individuals

People with a high level of intelligence in such specific type, but have low level in another kind, demonstrates that a given intelligence can be separated from the other types of intelligence. In a case describes by Selfe (1977)," Nadia is an autistic child. She started drawing horses when she was three and half year old-horses that looked like the work of a teenage artist" (Herbert and Mario,2005, p.12). In this case, we can see that this girl has a well-developed level of spatial intelligence but unfortunately, she is not able to be with other people. This reveals "a deficit in her interpersonal intelligence"(ibid.). Furthermore, Gardner (1999) provides us with some examples such as the musicians who can play a piano composition after hearing it one time, as Mozart who was able to perform on the piano at the age of four or some people who are able to do calculation in their heads without using a calculator. They have a high level of intelligence in these two domains but they may have a low level in others.

4.3. An Evolutionary History and Evolutionary Plausibility

Gardner (1999) believes that each type of intelligence has its roots deeply in the evolution of human being. Accordingly, he asserts that the origins of everyone's intelligence has rooted to so many years in the history of species. Some intelligences seem to be more significant in previous times as bodily/kinesthetic intelligence, this can be demonstrated in the capacity of hunting and harvesting. Moreover, such intelligences as the spatial intelligence can be observed in Hoggar in the south of Algeria, which shows the ability of previous people to perceive the visual world and make a transformation of what they observe (Hammoudi, 2010).

4.4. Support from Psychometric Findings

Gardner (1999, p.41) asserts that:

" Since MI theory was devised as a reaction to psychometrics, it may seem odd to see psychometrics evidence cited in discussion of supporting criteria. As psychologists have broadened their definitions of intelligence and increased their tools for measuring intelligence, psychometric evidence in favor of MI has grown".

He suggests that we can rely on standardized measure of human ability tests to support the theory of multiple intelligences. For example, the Wechsler intelligence scale that the psychologist used for testing children's intelligence may includes questions about linguistic intelligence as vocabulary or spatial intelligence as pictures arrangement (Christison, 1998).

4.5. Support from Experimental Psychological Tasks

The existence of intelligence can be supported by the results of psychological experiments. Gardner (1999) sees that psychological tasks are a good way to see the different intelligences working independently from each other. Thus, a person may be excellent in such specific intelligence but may be poor in other types of intelligence. In the same context, Christison (1998, p.2) adds his supporting to this criterion and provides us with an example that demonstrates the independence of each intelligence "subjects may master a specific skill, such as solving arithmetic problems, but they may still not be able to read well"(cited in Ibragimova, 2011).

4.6. Set of Core Operations

Gardner (1999) concludes that each type of intelligence has set of core operations, which means that there are several procedures and practices that are included under each type of intelligence, those operations serve in the function of the eight intelligences. For example, the core operations of mathematical intelligence entail the ability to comprehend the numerical operations and handle them (Armstrong,1994). Furthermore, the core operations that needed for the linguistic intelligence is the ability to differentiate the sounds of such language in order to understand it.

Armstrong (1994, p.6) puts forward the key areas of the brain which associated with each intelligence. They are as follows:

-Linguistic: left temporal and frontal lobes

-Logical-mathematical: left frontal and right parietal lobes

-Spatial: occipital and parietal regions (especially of right hemisphere)

- Bodily-kinesthetic: cerebellum, basal ganglia, motor cortex

-Musical: right temporal lobe

-Interpersonal: frontal lobes, temporal lobe (especially right hemisphere), limbic system

-Intrapersonal: frontal lobes, parietal lobes, limbic system

-Naturalist: left parietal lobe, important for discriminating "living" from "nonliving" thing.

5. Key points in (MI) theory

Gardner (1999) summaries this alternative theory in terms of four main points that are important to be remembered. The key points in multiple intelligences theory are:

➢ **Each person possesses all eight intelligences**

Each person has the eight intelligences and they are working together in unique way, but there is a difference in the level of each type. We can find someone has a strong linguistic intelligence, however, that same person has poor mathematical intelligence which means he

can easily write poems and recite them aloud but, he finds problems in calculating numbers. Generally, human beings are in between.

> ➤ **Most people can develop their type of intelligence to an adequate level of competency**

Gardner suggests that every person has the ability to make his intelligence in high developed level of performance, with the appropriate instruction and encouragement which means most of the eight intelligences can be developed by vigorous training.

> ➤ **Intelligences usually work together in complex ways**

Gardner indicates that that each intelligence is actually a "fiction" which means that in reality there is no intelligence that exists alone but all the eight intelligence in fact are interacting with each other.

> ➤ **There are several ways to be intelligent within each category**

There are no specific standards that indicate that a person should be intelligent in some specific areas. Consequently, the individuals sometimes are not capable to read but they possess highly linguistic intelligence because they can tell a story to the others or they have set of vocabularies.

6. Learning styles and Multi-intelligences theory

The theory of multiple intelligences has been closely related to learning styles theory. This theory refers to "a general predisposition or preference to approach learning in particular ways". (Richards and Rodgers,2014, p.237). The idea of learning styles can help the teachers of English to be familiar with a variety of learners in their classrooms.

Christison (1998), states that there are three main categories of learning styles: cognitive, sensory (perceptual), and personality. She describes each type and points out that the perceptual learning styles are the best-known type. This type includes terms such auditory, visual, tactile, and kinesthetic. Consequently, there are several taxonomies of learning styles

which proposed by Richards and Rodgers (2014). According to them, visual learners can be considered as the type of student under the linguistic and the spatial intelligence. Those learners prefer graphic representation and they benefit from reading books and articles.

The second learning style is auditory learners, Richards and Rodgers (2014, p.238) believe that "these learners learn best from oral explanation and from hearing to spoken words. They benefit from listening to recording, teaching other students, and by conversing with their classmates and teachers". These types of students can be categorized under the musical intelligence because auditory learners prefer learning by listening, they are the same as the students with musical intelligence which they learn best when they listen to their teachers and classmates.

The next category is the kinesthetic learners which they " learn best when they are physically involved in the experience"(ibid.). In this case, learning styles and multiple intelligence(MI) share the same point which is learning through physical movements. These kinds of learners learn well when they are addressed by gestures, they are easily remembering different information when they participate in physical activities such as role play and acting out vocabulary. Similarly, tactile learners also learn best when " engaged in hand-on activities, they like build, fix, make or put things together"(ibid.).On the other hand, group learners which can be related to interpersonal intelligence, they prefer group work and learn when they interact with both teacher and peers. According Richard and Rodgers (2014) collective work enables the students to learn and comprehend the foreign language. By contrast to individual learners which can be related to students with intrapersonal intelligence, those students prefer working alone, they are able to learn different information " by themselves and remember the materials better if they learned it alone"(ibid.).

EFL teachers should pay attention to the different learning styles and each lesson should include variety of learning styles (Christison, 1998). As Silver et al. (1997) claim that learning styles focuses on the various pathways that learners follow in order to learn. Conversely, multiple intelligences emphasize on the way human being ability is shaped by several disciplines and cultures." Learning styles are not fixed throughout life, but develop as a person learns and grows". (ibid.). According to them, there are some specific similarities between learning styles

and multiple intelligence theory, since intelligence is not fixed and can be developed throughout the year.

Learning styles and multi-intelligences theory should work together and applied in combination because both of them have some limitations that will be minimized and their strengths will be enhanced if both theories are integrated. They suggest that multiple intelligences and learning styles can be related and work together in order to incorporate model of human intelligence and learning, the model that can provide us with the appropriate tools that enable us to meet high standards.

Conclusion

The traditional view of intelligence which considered it as a singular, unchanged, and inborn capacity has been resulted in the acceptance of the IQ tests (Intelligence Quotient), or which is called the Stanford-Binet Tests as the main tool to measure the human being intelligence. Multiple Intelligences (MI) theory, was one of the major theories that deals with the human intellectual ability. It was first suggested by Howard Gardner, who postulates that one intelligence does not exist. However, intelligence is set of capacities, and notes that the (IQ) tests measure only language and logic. Gardner believes that the human brain has other equally types of intelligence which are eight in number. This new alternative approach attracts the intention of several educators and leads them to make a combination between multiple intelligences theory and teaching English as a foreign language, and think about the applications of this theory in the field of education to develop the teaching strategies as well as enhance foreign language learners to comprehend English language based on their own type of intelligence.

Chapter Two

Chapter Two:

Implementing multiple intelligences theory in EFL classroom

Introduction

Multiple intelligences theory is one of the main approaches that characterize the way of teaching English as a foreign language. This theory attracts the interest of several educators when it was first suggested by Howard Gardner in 1983. It deals with the variety of learners in the same classroom and provide each student with the best shoe i.e. it enables all the students to learn according to their styles of learning. Moreover, this theory helps EFL teachers to present the course successfully and helps the learners of foreign language to reach their goals. Multi-intelligences theory has many implications for EFL teachers in terms of classroom instructions. Consequently, teachers of foreign languages have to think of all the eight intelligences as equally important. Multiple intelligences theory provides a pathway of comprehending intelligence, which the teachers of English can use as a guide to develop their classroom activities that address multiple ways of learning and knowing (Christison, 1999). The present chapter deals with the teaching strategies for each type of intelligence and the different activities based on the multi-intelligences in the classroom. Furthermore, it highlights the benefits of implementing multiple intelligence theory in language teaching classroom.

Section one: Multiple intelligences theory in the classroom

1. Multiple intelligences theory and the student

Because multiple intelligences (MI) theory offers opportunities to learners to achieve their own intelligence and helps them to attain better academic results, the applications of this theory in foreign language classes is considered as the first step toward success. Consequently, Christison (1999) suggests four basic modes that the teachers of English should focus on in order to apply this alternative view in EFL classes as well as with adult learners. According to them, multiple intelligences theory can be seen as:

a. A tool to help the learners of foreign language to be knowledgeable about their strengths and weaknesses. Christison (1999) proposes the 'survey' as the main tool to aid students identify their predominant intelligence.

b. As a tool to make EFL teachers aware about the various kinds of intelligences and the different learners' competencies in the same classroom.

c. As a guide to give eight different ways of learning for the students to enable them demonstrate their strengths and improve themselves in learning the foreign language.

d. As a guide for developing lesson plans by involving some specific activities and tasks that address all the learners in the same classroom.

It is important for the teachers of English to know the appropriate method of working with several intelligences in their classes (Campbel, 2008). Armstrong (2000, p.41) in his turn, invites the teachers to figure out what is the appropriate way in which their students learn in order to develop their language. Based on this, he provides EFL teachers a summary about several learners in the classroom, their ways of thinking as well as their needs.

Students' type of intelligences	Think	Prefer	Need
Linguistic intelligence	In words	Reading, writing, telling stories	Books, stories, dairies
Mathematical intelligence	By reasoning	-questioning -logical puzzles	Experimental materials
Spatial intelligence	In images and pictures	Drawing, visualizing, designing	Slides, imaginations, games, Art

Bodily/kinesthetic intelligence	Through Somatic Sensations	Touching, gesturing	Role play, physical games
Musical intelligence	Via rhythms and melodies	Singing, listening	Musical instruments
Interpersonal intelligence	By bouncing ideas of other people	Organizing parting relating	Friends, group games, events
Intrapersonal intelligence	In relation to their feelings and goals	Setting goals, dreaming	Secret places, self-projects
Naturalist intelligence	Through nature	Searching about scientific topics	Tools for investigating nature

Table 2: Eight ways of learning (Armstrong2000, p.41)

2. Identifying Student Strengths

After EFL teachers of English comprehend all the eight types of intelligences that exist in the same classroom, the following step that they should follow is to determine how each learner will learn best, by identifying their students' intelligence strengths (Campbell, 1999). There are several methods which are used by the teachers in order to identify their students level of intelligence. Many questionnaires, inventories, and tests have been created to determine learner's intelligence as McKenzie's survey and Teele inventory of multiple intelligence (Shearer, 2006). Teachers may also recognize the different intelligences in their classroom by observation. If a teacher sees that some students like writing poems, they probably have a high level of linguistic intelligence, or if they are good in solving logical

puzzles, they possibly have a strong logical-mathematical intelligence. Armstrong (2009), suggests a check list that enables the teachers to be familiar with the different intelligences. After identifying the strengths of all the learners, teachers of English may see their students in different ways. Campbell (1999) states that "multiple intelligences theory provides a new lens to perceive students and a new tool for acting on that information" (p.10). According to him, this theory enables both teachers and students to look at their strengths instead of weaknesses. Knowing the levels of each student's intelligence helps the teachers to engage all the pupils in the process of learning the foreign language. By including some different learning activities under each type of intelligence, this will help students use their strong intelligence to develop the weaker one.

3. Multiple intelligences theory and language teaching

Multiple intelligences theory has several implications for teaching the foreign language. Teachers can better understand their students if they understand the content of this theory(Gardner,2006), with the comprehension of multi-intelligences theory teachers will be able to make their students discover their own strengths and weaknesses as well allow them to learn in differently (Guignon,1998). Thus, teachers have to use many strategies to work with all the eight types of intelligence. In the context of teaching English as a foreign language multiple intelligences theory provides a variety of teaching strategies that address each type of intelligence. Moreover, these strategies make learning process easier and enjoyable for the learners. Reid (1998) sees that multiple intelligences theory enables the teachers to examine their teaching techniques and strategies. For instance, Christison (1996) states that multiple intelligences theory provides the teachers the chance to choose the appropriate teaching strategies taking into account the different types of learners. Moran et al. (2006) explain that using this theory in the classroom aids teachers of foreign language to provide their students with "rich experiences-activities in which they can engage with the material personally rather than just absorb it in an abstract, decontextualized way" (p.25). according to them, rich experiences include different intelligences not just one type of intelligence into one lesson or unit. For example, a class may be working on the water cycle. Students can act out the water cycle, draw a mural, or sequence the order of the cycle, among other activities that incorporate

the intelligences. There are many strategies that is applied by the teachers in their classroom such as:

3.1. Teaching strategies for linguistic intelligence

This type of intelligence is the easiest one to be developed because it has been used for decades (Armstrong,1994). Consequently, English teachers are responsible to use different strategies in order to enhance students' linguistic intelligence.

✓ **Journal writing**

Writing a journal, in the context of implementing multiple intelligences theory in the classroom, allow the teachers to ask their students to write about a given topic that should be purposeful and related to a unit of study and give them the freedom to share their pieces of writing with their classmates or to keep them private with the teacher. This strategy make the students write in a more formal, academic style which enables them to recognize some new vocabularies as well as develop their linguistic intelligence (Armstrong 2000).

✓ **Publishing**

EFL teachers are generally asking their students to write, when they complete their writings they hand them to the teacher, who, in his turn corrects and gives them back to his students. Thus, writing for them will be considered as a boring activity. However, the new in this theory is that the teacher will be as a publisher to his students' piece of writing in the school newspaper or magazine. This strategy helps in the achievement of linguistic intelligence and in the motivation of the students because what they have written is published (ibid.).

✓ **Discussion and debates**

In this strategy, teachers have to choose an appropriate topic that should be related to the lesson or the unit of study. According to Maxon (2009) this kind of strategies can get the interest of the students as well make them enjoy learning. Teachers should engage all the

students in discussion activities and allow them to comment when it is necessary. Harmer (2009) sees that the teachers have to give their students time to arrange their ideas before they start discussion, that will make them go through debates easily.

✓ **Poetry**

In order to work with the students who posses linguistic intelligence, teachers should engage their learners in writing poems and reciting them aloud in front of their classmates. According to Armstrong (2000) poetry is an effective tool to enhance students' language learning as well helps them to learn new vocabularies.

3.2. Teaching strategies for logical/mathematical intelligence

The mathematical learners deal with problems in a logical way and like to see things categorized and ordered (Kennedy,2005). Teachers should apply some strategies that are related to those categories of learners in order to develop their intelligence. Such as:

✓ **Calculation and quantification**

The teachers should take advantage of talking about numbers also, they have to involve their students in logical thinking through providing them with passages that include logic and math or bring them a geometric figure in order to describe different objects (cited in Hammoudi,2010).

✓ **Classification and categorizing**

In order to work with the logical intelligence, teachers have to implement this strategy. In the foreign language class, this strategy enables the learners to classify a given data and ideas in order to make them remember information easily.

✓ **Socratic questions**

In this strategy teachers have to ask their students logical questions as well as have to participate in dialogues with them. Such questions are :

- Can you give me an example about… ?

- Why is that happening ?

- What is the nature of this ?

This strategy is a good tool to work with students who think in mathematics. It enhances their intelligence and makes them able to give explanations and descriptions. EFL teachers use this strategy because they look for clarity and logical coherence.

3.3. Teaching strategies for spatial / visual intelligence

Students with spatial intelligence respond to images, pictures, slides and movies (Armstrong, 2000). Traditional teaching focused on using the chalkboard to present information to students. This strategy in fact addresses the linguistic type of intelligence and has nothing to do with visual intelligence (cited in Hammoudi,2010). Armstrong (2000), suggests some language classroom activities to work with the visual learners, such are:

✓ **Making a map**

Constructing maps is considered as the core of visual intelligence. This strategy helps students to create maps that are related to a given story, topic, or unit of study. To work with this type of intelligence, EFL teachers may ask their learners to make a summary of a studied unit in a form of a map, or they may invite them to transform the events of a given story to a map. This strategy is generally used in our secondary schools. It is a helpful method that enhances students 'visual intelligence and it also makes them enjoying learning the foreign language.

✓ **Creating charts, posters, and diagrams**

Teachers use this strategy to provide their students with a clear understanding about such topic. In this strategy teachers are asked to translate a set of information in charts and diagrams, or they may ask them to do it alone.

✓ **Making a videotape or a film**

This strategy includes a special training for both the teacher and the learner. In this case, the teachers are asked to bring all the learners to outside the classroom and link them directly to

nature. This strategy enables the students to learn by observation and touching instead of learning by words.

3.4. Teaching strategies for bodily/kinesthetic intelligence

This type of intelligence can be addressed by the use of the whole body, it includes hands, arms, and fingers to produce something. To work with kinesthetic intelligence, teachers of English should present set of information through the role plays, physical gestures, making a board or floor games. Working with the bodily intelligence encourages the students to comprehend English language and makes learning process easy for them.

✓ **Role play**

In this strategy, teachers are allowed to ask their students practise their language through acting out vocabularies or presenting different situations in the classroom (Harmer,2009). Teachers can propose different topics to their students and divide them into groups then ask them to perform their roles. When the students are performing, teachers stay back and take notes about their students' performance as well their body movements, gestures, and language. This strategy is a very important tool that helps students to learn and enjoy learning English language at the same time, as Harmer (2009) says 'role-play is more than just play-acting, it offers chances for rehearsal and engagement that some other activities fail to give' (p.94).

3.5. Teaching strategies for interpersonal intelligence

Some learners need to interact with their classmates in order to learn. They like cooperative work and find themselves learn best if they share their knowledge with others. Gardner (1999) suggests some strategies to address students under interpersonal intelligence which are:

✓ **Peer-sharing**

In this strategy, teachers may ask their students to form groups or work in pairs, and provide them with different topics to discuss or write about.

✓ **Interviews**

Teachers may ask their students to construct an interview about a given area of study and perform it in front of their classmates.

✓ **Group projects and discussions**

Asking students to form groups and work on projects can be of great benefits for them, because this strategy will enable them to develop a host of skills as well rise their interpersonal intelligence. Moreover, group projects refine understanding through discussion and explanation.

3.6. Teaching strategies for intrapersonal intelligence

To reach the intrapersonal intelligence, learners, should recognize what they need, what they have to do, and what they posses. The role of the teachers in this case is to include some different activities that are related to this type. The English lessons should be contained the following:

➢ Independent projects
➢ Involving student's feelings about a subject
➢ Writing dairies
➢ Reading independently

3.7. Teaching strategies for musical intelligence

Including songs or rhythms is a beneficial step toward success in comprehending the foreign language. According to Gardner (1999) students who posses musical intelligence like learning English through listening. They find themselves able to gain a huge amount of vocabularies through listening to English songs. To develop this type of intelligence, teachers have to address it through some strategies as:

➢ Transform the lyrics of a song to a text

➢ Using the lyrics as a metaphor

➢ Write and sing curriculum songs

3.8. Teaching strategies for natural intelligence

Because many students have natural intelligence, teachers should apply some teaching strategies to meet the needs of those learners under this category of intelligence. Armstrong (2000) proposes some strategies to work with natural intelligence, which are:

➢ Describe changes in the local or global environment

➢ Collecting objects from the natural world

➢ Sorting articles from nature

➢ Asking students to write a paragraph about natural disaster

Section two*:* Multi-intelligence activities

1. Activities related to each type of intelligence

The most significant goal of the applications of multiple intelligences theory in teaching English as a foreign language is to provide the learners the opportunities to use their strengths and abilities in the process of learning English language. According to Currie (2000) if the teachers are familiar with the intelligence profiles of their students, they will be able to develop different activities to address each type of intelligences and reach the intelligences which are not strongly emphasized. Gardner (1983) considers multiple intelligences classroom activities as the main tool that meets the needs of all the learners in the same classroom. In terms of foreign language classes, Berman and Ried (1998) propose a wide range of activities under each type of intelligence which are presented below:

1.1. Activities catering for linguistic intelligence

Berman and Ried (1998), who were interested in the applications of multiple intelligences theory in the classes of teaching foreign language, suggest several activities for the students to help them enhance their lower type of intelligence. The sample activities suggested by Berman and Ried (1998) are:

➢ Group discussion

➢ Reading different books

➢ Answering multiple questions that are related to a given text

➢ Giving presentation

➢ Identifying different themes

➢ Writing a poem and reciting it in front of classmates

➢ Participating in debates

➢ Grammar exercises

1.2. Activities catering for mathematical intelligence

In order to work and enhance this type of intelligence, the suitable classroom activities that are suggested by Armstrong (2000), include the following:

➢ Mapping a location

➢ Sequencing events in a chronological order

➢ Presenting timelines of events presented in a story

➢ Finding logical errors

➢ Making up analogies to explain

➢ Developing crosswords and puzzles for classmates to solve

➢ Problem-solving activities

1.3. Activities catering for spatial intelligence

There are several classroom activities related to visual intelligence which proposed by Gardner (2009) to help students who posses this type to develop their competencies. Such activities are:

➢ Drawing diagrams for explanation

➢ Matching pictures with words

➢ Illustrating stories

➢ Describing pictures

➢ Graphic representation

➢ Using a picture to complete a story

1.4. Activities catering for kinesthetic intelligence

Different activities were proposed by Armstrong (2000) in order to aid EFL learners to arise their kinesthetic intelligence. Some of them are:

➢ Role plays

➢ Acting out vocabularies

➢ Creating a sequence of movements to explain

➢ Hands on activities

➢ Making tasks or puzzle cards

1.5. Activities catering for musical intelligence

Gardner (2009) highlights the benefits of learning English language through music and he puts forward set of different activities through which the learners can reach their intelligence. The activities proposed are as follows:

➢ Listen to a song and write its lyrics

➢ Composing music that conveys the theme or mood of the lesson

➢ Creating a rhythmic way to remember information

➢ Reciting poem

➢ Transforming lyrics into a text

1.6. Activities catering for interpersonal intelligence

According to Armstrong (2000) the interpersonal intelligence is the most important type of intelligence that should be included in learning process. He suggests many activities for the students, some of them are:

➢ Group problem solving

➢ Pair work

➢ Group work

➢ Project work

➢ Retelling text from another character point of view

1.7. Activities catering for intrapersonal intelligence

Berman (1998) proposes some different activities that the learners should deal with in order to strengthen their intrapersonal intelligence and success in learning process. The activities are:

➢ Learner dairies

➢ Personal goal setting

➢ Personal journal keeping

➢ Tasks with self-evaluation

➢ Expressing feelings and emotions

➢ Reading a story and suggest the end from your view point

1.8. Activities catering for naturalist intelligence

There are many different activities which were proposed by both Armstrong (2000) and Berman (2009) in order to work with and develop the naturalist intelligence. Some suggested

➢ Reading natural magazines

➢ Creating observation note books

➢ Describing changes in the environment

➢ Searching about natural materials and concepts

➢ Writing about a natural disaster

2. Exercises for secondary school learners

Herbert and Mario (2005) suggest some exercises for secondary adult students that the teachers can apply in their classes to help their students to enhance their comprehension of English language and develop the lower intelligences that they have. The following exercises are taken from Herbert and Mario (2005, p. 30, 115, 126, and 154):

 Exercise -1- From music to sculpture

Language focus: Writing

Proposed (MI) focus: musical and kinesthetic

Level: Lower to advanced

Time: 40-45 minutes

Preparation: Choose a piece of music that should be a piece they are unlikely to know already.

In class :

1. Get your students into a calm mood, then ask them to close their eyes.

2. Play them the piece of music you have selected.

3. When the music has ended, ask each student to write a paragraph about the pictures they saw as they listened, the smells they experienced, the feelings they had, the day-dream they went into or the thoughts that came to them.

4. Group the students into fours to share their paragraphs

5. Ask each group to prepare a human 'sculpture' that represents their feeling about the music. They need to include all four people in the sculpture and to take up a position they can hold for 10 to 15 seconds.

6. Each group shows their sculpture to the rest of the class.

7. Each student writes a paragraph about each of the sculptures.

8. Ask the students to sick the paragraphs up round the walls, so students can read each others.

    Exercise -2- Listening with your mind's eye **(**Herbert and Mario 2005, p.126)

Language focus: Listening and speaking

Proposed (MI) focus: Spatial and linguistic

Level: Lower intermediate to advance. The example given here is for use with intermediate students.

Time: 5-10 minutes

Preparation: Select a poem or any other text suitable for your class that is likely to stimulate the students' visual and spatial imagination.

    In class :

1. Tell your students that you are going to read out a text to them. Ask them to listen with their eyes closed, and focus on what they see, hear, feel etc. while you are reading. Tell them that some of them may be mainly seeing clear and colourful pictures, while

others will probably be able to get a feel for visual images, but may see only very blurred pictures or no pictures at all

2. Quietly ask the students to work in small groups and to share their favorite moments during their experience of the poem.

<u>**Exercise -3-**</u> Starting a group **(**Herbert and Mario 2005, p.115)

Language focus: Listening and speaking about own experience

Proposed (MI) focus: Interpersonal

Level: Elementary to advanced

Time: 20-30 minutes

Preparation: Be ready to talk about a 'good' group and a 'bad' *group you have taught.

<u>**In class :**</u>

1. Tell the students about a class you have taught who you think that they were a good group. Explain what pleased you about this group.

2. Ask the students to work in groups of fours, and invite them to describe a good group they have been in, whether in school or in another place.

3. Bring the whole class back together. Ask one student from each group to illustrate to the classmates the good group that has described by someone else in his or her group.

4. Tell the students about a bad group you have worked with.

5. In their groups, the students tell each other about a bad group they have been in. Tell them that you won't be holding whole-group discussion on this, and that their opinions will stay private to their groups.

6. Ask each student to write a paragraph about their expectations about this particular class/group, for the class to see. Collect these together, read them and, before the next lesson, post them on a wall of the classroom.

Exercise -4- problem-solving patterns (Herbert and Mario 2005, p.154)

Proposed (MI) focus: Logical - mathematical and other intelligences

Level: Intermediate upwards

Time: 40-50 minutes

Preparation: None

In class :

1. Ask each student to think of two problems they have successfully solved in the last few weeks. Tell them that they have 10 minutes to note down exactly how they managed to solve the problems. Ask them to focus on the steps they went through in order to solve each problem. Do not give them any examples at this point.

2. Ask your students to work in groups of three or four. Get them to tell each other briefly about the problems they had, and to share their findings about how they solved the problems. The other members of the group should ask questions in order to be able to compare and contrast different ways used by different students to solve their problems.

3. Get each group to draw a diagram or flow chart for each different approach to solving a problem that they have found in the group.

4. Get each group to present to the class the different problem-solving approaches found in each group. They should not elaborate on the content of the problem, but merely on how the problems were solved.

5. As they make their presentations, list on the board the different ways of solving a problem that they have come up with, and get them to give each different way a special name.

4. Objectives and goals :

➢ Students will practice speaking English easily.

➢ They will have the opportunity to express themselves in front of their classmates.

➢ They will be able to use their imagination.

➢ They will be interactive.

➢ They will learn new vocabularies and acquire new knowledge.

➢ They will be creative.

➢ They will enhance their lower intelligence.

➢ They will recognize their weaknesses and strengths

5. Benefits of using (MI) theory in EFL classes

The eight types of intelligence which are proposed by Gardner (1983) can be considered as eight ways of teaching the foreign language. Applying this theory in the frame work of education can be of great benefits for both, teachers and students. One benefit of implementing multiple intelligences theory in foreign language classes is that it helps the teachers to meet their students' learning needs, which in turn, provides the teachers the opportunity to include extra teaching materials in their teaching process as pictures, data shows, and stories. According to Gardner (2006), if the teachers implement (MI) theory, they will address different intelligences in one lesson. Furthermore, students will feel comfortable and engaged in learning process as well as they will be addressed. Hegcox (2002,p.70) sees that ' the more variety you offer students in ways you ask them to learn and show what they have learned, increase the likelihood of reaching more students'(cited in Gangi,2011). Gardner (2006) sees that (MI) theory helps students and teachers to understand their abilities. Therefore, it demonstrates how students can use their higher type of intelligence to develop their weaknesses. Moreover, multiple intelligence theory motivates the learners of foreign languages to work on their interest. (MI) theory also aids the teachers to create different lessons to address and meet a variety of students'needs (Wilson, 1998). When the teachers give the chance to their students to learn through their strengths, they will make them engaged in learning process (Dickinson, 1996). Implementing (MI) theory in EFL classroom makes the lesson more enjoyable and interesting for students (Lazear, 2004)). Furthermore, Lazear (2000) sees that when the learners recognize their (MI) profile and become aware about their level of intelligence, their self-confidence will be higher.

According to Campbell (1999) when EFL teachers look to their students' high level of intelligence instead of their lower type of intelligence, both teacher and student will have higher expectation which will enhance students learning (cited in Gangi,2011).

Conclusion

Implementing Gardner's theory in EFL classroom can be of great benefits for both teacher and student in secondary school. This new outlook provides the opportunity for the teachers to demonstrate their abilities through the use of different strategies that address each type of intelligence in the same classroom. Moreover, it makes students feel involved and engaged in the learning process. Multiple intelligences theory (MI) can be considered as the suitable tool to improve students' self-esteem because it encourages the learners of foreign language to see their intelligence in physical, practical and creative way. According to Armstrong (2000)

implementing (MI) theory in the framework of education makes learning process an important task for the learners and they will enjoy learning and never feel bored as well as their comprehension of English language will be enhanced.

Chapter Three

Chapter Three:

Field work and data analysis

Section one: Methodology

Introduction

The current chapter represents the field work and the analysis of the collected data. It designs to attain valuable information concerning the application of multiple intelligences (MI) theory in EFL classes. It is divided into two sections. The first section provides a theoretical background on the research methodology of this study. It describes the data collection methods that are used to investigate this research. The second one, concerns the discussion of the obtained results. Since teachers of English and EFL learners are the most variables of the present study, their answers are important to examine the hypothesis. Consequently, the two questionnaires have administered to three EFL teachers and thirty students of third year scientific stream. The checklist observation has conducted in the same classroom.

1.Research method

Our research problem is about implementing multiple intelligence (MI) theory in EFL classrooms. Therefore, the suitable research method is the descriptive one. According to Turney and Robb (1971), "many research problems in education lend themselves well to descriptive methods" (p.52). The descriptive method aims to describe and explore the causes of scientific phenomena (Travers, 1978).

2. Setting and participants

2.1. Setting

The present research was conducted at Mouhamed Drissi secondary school in Foughal, specifically in a scientific classroom.

2.2. Participants

2.2.1. Students

The population used in this research includes one hundered (n=100) students of the third-year scientific stream at Drissi Mouhamed high school in Foughala. The sample of

thirty (n=30) students were selected randomly. Our sample consists of 21 females and 9 males, their age ranges from 18 to 21 years old.

2.2.2. Teachers

Three teachers who teach different levels in secondary school were questioned. We have included those teachers in order to gain reliable data because of their experience in teaching the English language.

3. Instruments

In our research, two research tools are used. The first research tool is the questionnaire, one for students and the other for the teachers. The student's questionnaire is taken from Mc Kenzie survey (1999). The aim of using this specific survey is to identify students' intelligence profile in the same classroom. The second questionnaire is administered to three EFL teachers who are currently teaching English as a foreign language at Drissi Mouhamed high school. This questionnaire consists of 10 questions and they are concerned with the teacher's perceptions of implementing multiple intelligence (MI) theory in their classroom. The second tool is the checklist observation. The main purpose of this tool is to see whether or not EFL teachers apply different activities to engage all the students in learning process.

3.1. The description of Students' questionnaire

The students' questionnaire is taken from Walter Mc Kenzie's survey (1999). It has forty statements that are related to each type of intelligence. It identifies the different intelligence profiles in the same classroom. According to McKenzie (2005), multiple intelligence (MI) survey enables the teachers to be familiar with the variety of learners. The questionnaire is divided into two sections. The first one consists of general information about the students (gender, age). The second section has forty statements with a five-point Likert scale (never, not much, don't know, quite a lot, a lot).

As we mentioned before, our second research tool is taken from Mc Kenzie's survey of multiple intelligence. the forty statements under each type of intelligence are as follows:

Linguistic/verbal intelligence

1. I like participating in debates

2. I enjoy telling stories to my classmates

3. I enjoy playing vocabulary games

4. I like reading books and articles

5. I enjoy writing poem and recite it aloud

Mathematical/logical intelligence

6. I like using charts and diagrams in my learning

7. I can complete calculations quickly in my head

8. I enjoy developing puzzles and crosswords for my classmates

9. I like collecting data and organizing them

10. I like to learn about scientific models and explain them

Kinesthetic/bodily intelligence

11. I enjoy role playing

12. I can understand physical gestures

13. I enjoy acting out vocabulary

14. I prefer creating a sequence of movements to explain

15. I enjoy practicing sport

Musical intelligence

16. I easily remember things by putting them in a rhyme

17. I can transform lyrics into a text

18. I easily comprehend the meaning of the song

19. I can pick out different instruments when I listen to a piece of music easily

20. I can remember pieces of music easily

Interpersonal intelligence

21. I like interacting and working with a team

22. I enjoy retelling a story from another character point of view

23. I dislike working alone

24. I learn well from listening to others

25. I enjoy games involving other students

Intrapersonal intelligence

26. I like working individually

27. I prefer reading independently

28. It is easy for me to explain my ideas to others

29. I enjoy creating my own works of art

30. I like writing diaries

Naturalist intelligence

31. I enjoy reading natural magazines

32. I easily describe changes in the environment

33. I like searching for natural materials and concepts

34. I can recognize and name different types of birds, trees, and plants

35. I entertain constructing a story map

Visual/spatial intelligence

36. I prefer using pictures to illustrate projects

37. I prefer books which use pictures more than words

38.I often see clear visual images when I close my eyes

39. I can easily create new world in my mind

40. I enjoy creating objects with my hands

3.2. The description of Teachers' questionnaire

The target population of the second questionnaire is the teachers of secondary school. This questionnaire conducts to collect the appropriate data about our research. It comprises (10) questions, which were divided into two main sections:

Section one: The first section aims at collecting general information about teachers' years of teaching experience and the different levels that they have been taught.

Section two: This section includes eight (8) questions concerning the teachers' knowledge about the theory of multiple intelligences, its applications in the field of education, its related activities, and its benefits.

3.4. The Description of the Observation Checklist

Classroom observation is considered as an effective tool for collecting reliable data, because it provides the researcher with a direct contact with the study. Denscombe (2010) comments,

> Observation does not rely on what people say they do, or what they say
> they think. It is more straightforward than this. Instead, it draws on the
> direct evidence of the eye to witness events at first hand. It is based on the
> premise that, for certain purposes, it is best to observe what actually
> happens. (cited in Houadjli, 2015, p.95).

Classroom observation is a good tool to check out whether the teachers in secondary school give more class time to students' activities, such as role playing, group work, and writing diaries which could increase students' comprehension of English language.

4. Data collection procedures

The data of the present research were collected from different instruments, as mentioned before. After obtaining the permission from the director of the secondary school, we start our work which takes place during the spring semester of the academic year 2016-2017 at Mouhamed Drissi secondary school in foughala. Firstly, the teacher's questionnaire was distributed and the three teachers accepted to participate. Secondly, concerning the students' questionnaire, we provide each student with a copy which involves the forty statement, then asked them to put a tick next to the statement that best describes them. There were no difficulties during the distribution. Our respondents gave their copies back the day after because the time was not enough. Regarding the checklist observation,

there were no problems with both teacher and pupils. I have attended five separate sessions with third year scientific stream at Mouhamed Drissi high school.

Section two : Discussions and Findings

1.1. Data collection and the analysis of students' questionnaire

Section 1: General information

Question 1: Specifying your gender

Gender	Number	Percentage
Male	9	30%
Female	21	70%
Total	30	100%

Table 3: students' gender

Figure 1: Students' gender

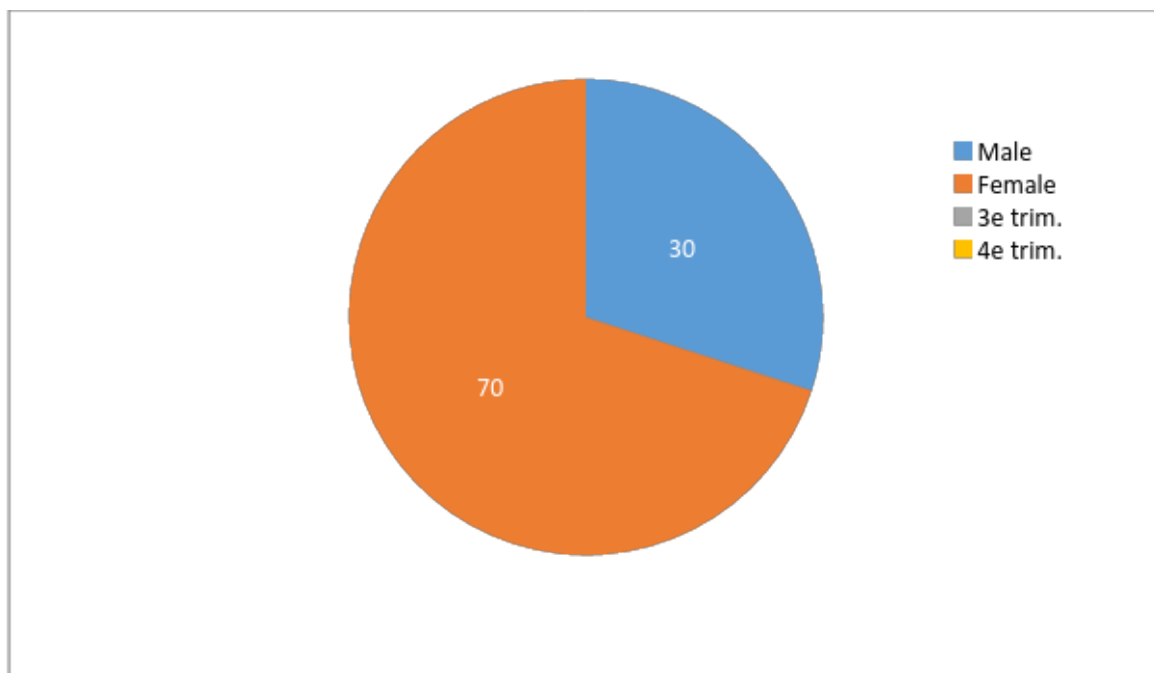The results demonstrate that the sample is composed of two sexes: (21) female and (9) males. Thus, this study includes all the population in order to collect different information.

Question 2: Specifying your age

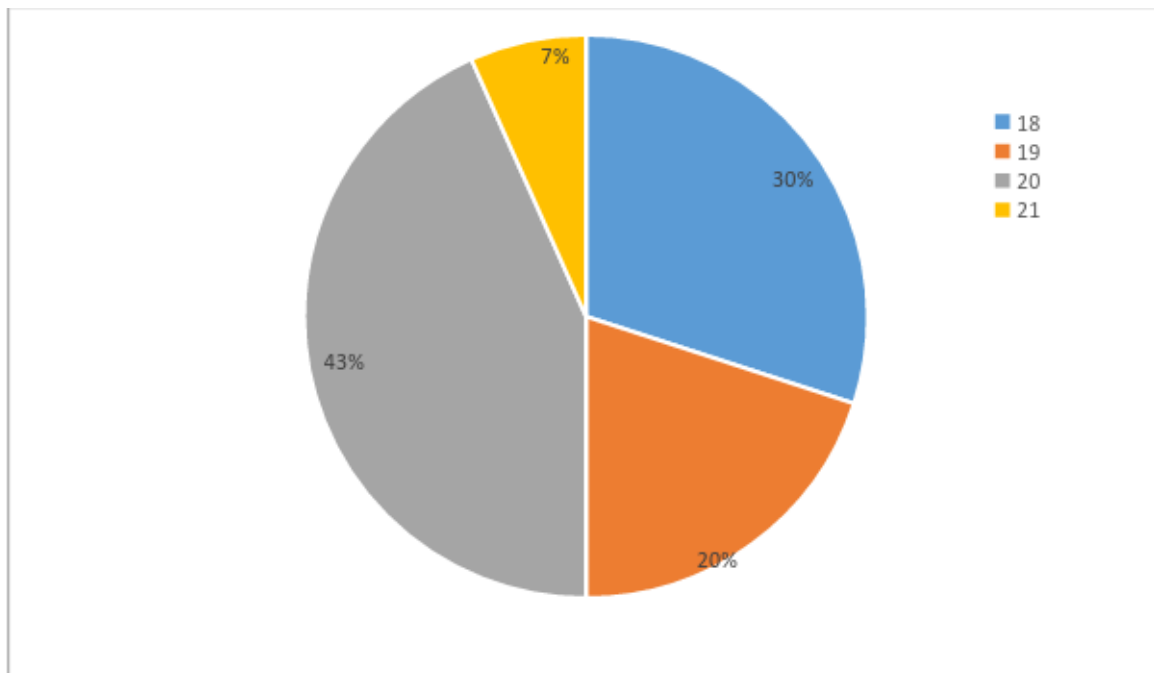| Students' age	Frequency	Percentage
18	9	30%
19	6	20%
20	13	43.33%
21	2	6.67%
Total	30	100%

Table 4: Students' age

Figure two: Student's age

The outcomes reveal that the ages of the age of the participants are varying from 18 to 21 years old. The majority (43,33%) is 20 years old who may repeat their baccalaureate exam. The second category (30%) represents the students who went to school early. The percentage (20%) represents the students who their ages are 19 years old. Finally, (6.67%) represents the participants who repeat their baccalaureate exam more than twice.

The following table represents the dominant types of intelligences in third-year scientific stream classroom:

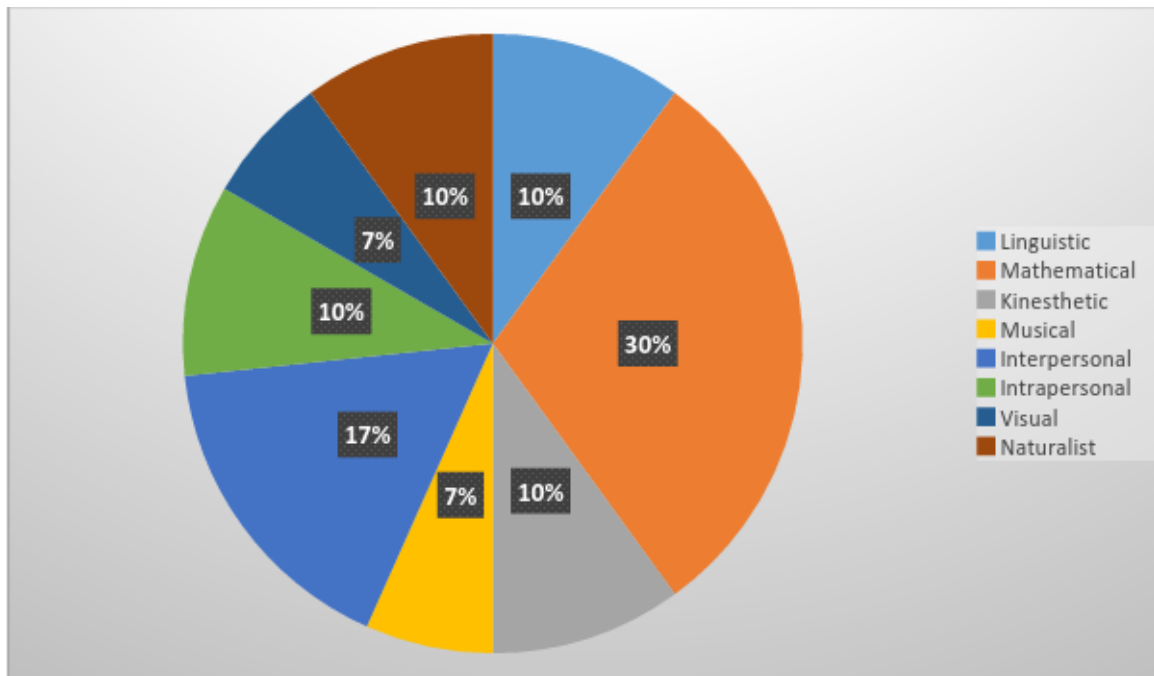| Types of intelligence	Number	Percentage
Linguistic	3	10%
Mathematical	9	30%
Kinesthetic	3	10%
Musical	2	6.67%
Interpersonal	5	16.66%
Intrapersonal	3	10%
Visual	2	6.67%
Naturalist	3	10%
Total	30	100%

Table 3 : students' intelligence

Figure three: students' intelligence

As indicated above, we can notice that most of the students have the mathematical/logical intelligence, they represent (30%). Their answers indicate that they are addressed when the lesson of English includes activities of logical intelligence as developing logical puzzles, or when the teacher uses charts and diagrams to explain grammar lessons, stories, etc. These kinds of students are nine (9) students from the total of thirty (30) students, this is because our study takes place in scientific stream classroom.

The second area of intelligence which has the second rating is interpersonal intelligence category, it is represented by (16.66%). Through their answers, there are five (5) students who like interacting and working with their classmates. Students with interpersonal intelligence are generally enjoying retelling stories from another character's point of view as well as they are enjoying games that other students are joined in. Moreover, students with interpersonal intelligence can learn foreign language through listening to their classmates or teachers.

The next category of intelligence in the classroom is composed of three types of intelligences which are linguistic, kinesthetic, intrapersonal and naturalist intelligence. Students under linguistic intelligence are those who like participating in debates and discussions, in which they can learn and comprehend the English language. Moreover, those

learners like to tell English stories to their peers as well they enjoy reading English books and articles. This category of students represents only (10%).

For kinesthetic/bodily intelligence, there are three (3) learners from thirty (30) students who have this type of intelligence. Those students learn more when they perform role plays, and when the teacher's explanations included physical gestures.

The next category is the students who have intrapersonal intelligence, the results of our study reveal that there are three (3) who possess intrapersonal intelligence, those learners are generally like to be isolated and prefer to read independently as well as they learn more when they work individually. This type represents (10%).

In the same classroom, another type of students have natural intelligence, they are also represented by (10%). Those students enjoy reading natural books and magazines. They like to write about nature and search for natural materials and look for natural concepts.

On the other hand, musical and visual intelligence got the lowest ratio (6.67%). The visual students understand more when the teacher includes pictures to explain the lesson, they prefer books which use pictures more than words, they are often seeing clear visual images when they close their eyes, and they have no difficulties in creating the new world in their mind. Learners with musical intelligence learn by putting things in rhyme, they like to involve music in their learning, and they easily can pick out different instruments when they listen to a piece of music.

Through the questionnaire we can deduce that third year scientific stream classroom includes variety of students who have different linguistic profiles. Thus, the EFL teachers should choose the appropriate activities according to their students' needs.

1.2. Data collection and analysis of teachers' questionnaire

Section one: general information.

- **How long have you been teach English?**

The teachers were asked to give the length of their teaching experience. Their experience is ranged from 8 to 15 years. Our purpose is to compare the different perspectives of teachers who have a long experience in teaching English to those who

have not. The results reveal that q teacher has an experience of 7 year and the second one has 8 years whereas the other teacher have 15 year in teaching English in secondary school.

- **What levels have you mainly taught?**

    All the teachers have taught all levels, first, second, and third year. What indicates that the teachers are aware about the abilities of their students in every level? Accordingly, EFL teachers meet different types of intelligences in each level.

Teachers	Years of teaching	Levels
1	8	First and third year
2	7	First and second year
3	15	First and third year

Table 4: teachers' years and levels of teaching

- Have you ever heard about multiple intelligences theory? If yes, How?

    The teachers were asked if they have any information about multiple intelligence theory we noted that all of them have heard about this new theory during their searching on the net. Their answers indicate that they learned that multiple intelligence theory is an effective way of teaching the English language. It makes the students become more intelligent due to the different activities that they include in their lessons such as games, role plays, and puzzles. According to them, multiple intelligence theory allows the teachers to involve and address all the learners.

- **Have you ever search about multiple intelligences (MI) theory?**

    This question was asked to know if the teachers have searched about (MI) theory before. The results indicate that two teachers have look for this new theory whereas one teacher did not. The aim of this question is to confirm whether or not the teacher is aware

about multiple intelligences as well as the benefits under its applications in their classes to help students enhance comprehension of English language.

- **Do you like to know more information about multiple intelligences theory?**

The aim behind this question is to indicate whether teachers are interested to acquire new knowledge concerning teaching the foreign language**.** The results show that there are two teachers who are interested in learning more about this important approach whereas one teacher is not interested.

- **Have you ever discussed with your students how they should learn?**

Question six is aiming at determining if the teachers discuss with their learners about what method or way they prefer to learn English. Our purpose is to know if the teachers in high school give the opportunity to their students to choose the appropriate method that they like to learn English as well to comprehend the language.

- **What are the effects of implementing multiple intelligences theory in your classroom?**

This question seeks information about the benefits behind the application of multiple intelligences theory in secondary school classes. The benefits are summarized as follows:

➢ To change the level of the student
➢ To avoid the problem of being restricted
➢ To make students feel free in expressing their thoughts
➢ To help students pronounce English without making mistakes
➢ To enable them get the objectives of the lesson

- **Are you aware of your student's level?**

It is pointed out by the three teachers that they are aware about their students' level in learning. According to them, through the tests and the tasks they give them during the session, teachers will be able to recognize each students' level

- **Do you think that you are using multiple intelligences theory in your classroom?**

The three teachers state that they are sure about the application of multiple intelligences theory in their classrooms. This indicates that in the secondary school classes, teachers do not depend on the traditional approaches of teaching but they use different methods to help their students learn English language.

- Do you think that the multiple intelligences theory is applied in your school?

When the teachers were asked if they think that Gardner's theory is applied in their institution, all of them state that they are sure about it. Through their answers, we can conclude that multiple intelligences (MI) theory is applied in other field not only in teaching English.

- Any further comments are highly appreciated

The aim of this question is to give teachers the chance to provide us with other information or to make comments about our questions. The three teacher participate in this question and express their thought and comments freely.

1.3. Data collection and analysis of the checklist observation

Five sessions were sufficient to get a general overview about if the teachers in high school implement multiple intelligence theory, and how they apply it. The first session takes place before the spring holiday, it was on Wednesday, March 08th, 2017. The second one, on Wednesday, April 05th, 2017. The third, on Wednesday, April 12, 2017. The fourth on Wednesday, April 26.2017. The last one was on Sunday, April 30.2017.

Type of the addressed intelligence	Activities
Mathematical	● Using diagram to explain a lesson on the textbook ● Identifying errors in a given paraghraph
	● Checking words in the dictionary

Linguistic	● Taking notes ● Making dialogues (question and answer) ● Explain an idiom or proverb ● Reading text in the textbook
Bodily	● Role play
Musical	● Singing an English song
Naturalist	● Writing an articale about man-made disaster
Interpersonal	● Pair work ● Group work
Intrapersonal	● Reading independently ● Writing diaries
Visual	● Drawing diagram on the board for more explanations

In the present study, third year scientific stream classroom were observed to find out different activities that the teacher implements in order to meet the different needs of the students. Through our observations, we notice that the teacher applies multi-intelligence theory, sometimes at the beginning of the session and sometimes at the end. At the beginning of the session, the teacher exploits the first fifteen minutes to revise the previous lecture, or a unit of study.

The first session took place before the spring holiday . At the beginning of the session, the teacher asks his students about the last lesson which was about the educational system in Algeria. He gives them time to remember then they z will answer. For more explanation, the

teacher draws a diagram on the board in order to give details about how the educational system in Algeria is working. Each time he asks them to check for new words and asks them to take notice. What we can conclude, is that there are two categories of intelligence that were addressed which are : the visual and linguistic intelligence.

The second day was on Wednesday, April 05th,2017 from 14 :00 to 15 :00 p.m. The teacher asks his students to give him back what he asked them to do before. It was a home work, its content was 'consider yourself as a journalist and write an article in which you make the people aware about the bad effects of man-made disaster'. He asks them to exchange their articles then correct if there are any mistakes in the peer's article. Each student takes his/her classmates article and read it aloud in front of his/her classmates. This strategy makes them acquire language and

The third day, was on Wednesday, April 12th,2017 the teacher begins his lesson as usual, with a general revision to make students remember. Activities such: note taking, cheking for words, pair work, and reading independently were included. At the end of the session, a girl takes the floor because the teacher asks her to sing an English song. The pupils were excited and happy because their mood has changed.

As regards to the fourth session, the lesson starts as usual. when the teacher completed his presentation and explanation to his course , two girls take the floor and make a dialogue about' Zenobia the queen of palmyra'. Giving chances to students to participate in dialogues and express their ideas freely, enable them learn foreign language easily.

The fifth day, was the last session which takes place on Sunday, April 30, 2017 the teacher starts with quick revision of the previous lesson, after that he begins the new one which is 'passive and active voice'. During the break, the teacher writes an idiomatic expression on the board then asks them to get the meaning of it. what we have observed through the five sessions that , at the end session the teacher asks his pupils to give him back their piece of writing about what they have done, wrote, understood, or read during the week. What the teacher said' it is a portfolio'. He told me that' the case of the portfolio is to help students remember the giving information as well as recognize their needs. Furthermore, it allows them to learn new vocabularies. Thus, it is a beneficial tool to make students acquire the English language.

To conclude, different activities are included in each session. Those activities are related to the theory of multi-intelligence of Howard Gardner which aims to provide each student with ' the best shoe, which makes them participate in the learning process.

Conclusion

This chapter represents the practical phase of this study it is concerned with collecting some reliable data about the different types of students' intelligences and the teachers' perceptions of the application of multiple intelligences theory in their classes. It provides a clear idea about the instruments and the procedures used to gather different data from

both EFL teachers and pupils of third-year scientific stream at Drissi Mouhamed secondary school in Foughala, Biskra. Furthermore, the chapter deals with the analysis of the two questionnaires and the checklist observation. It provides an interpretations and discussions of the achieved results.

    On the whole , the analysis of our research tools indecates that EFL teachers in secondary school are aware of Gardner's theory of multiple intelligences and they include it in their lessons because they know that in the same classroom there are variety of students' needs and learning styles i.e., different intelligences. Thus teachers are responsible to present the course according to their learners' needs to enhance their comprehension of English language.

Suggestions and Recommendations

It is widely agreed that the teaching process should meet the different needs of students. Thus, teachers are responsible to achieve their student's comprehension of English language because learners should feel involved, to participate in learning process. After reading several works that are related to the work of Howard Gardner, and working on the literature review and through the outcomes of the used instruments, we can recommend some pedagogical implications for the teachers of English and the learners of foreign language. Some important points are summarized as follows:

For teachers:

- Teachers have to recognize the learners' intelligence strengths and weaknesses
- Teachers should make their students aware about their intelligence type
- They should include multiple activities in their courses
- They ought to provide several ways for their pupils to learn the English language
- They have to develop their lessons in a way that full range of students' needs
- Teachers should choose interesting activities to motivate their learners
- EFL teachers should encourage their students to work on their intelligences
- They have to provide more chances for learners to improve their comprehension of the language
- Teacher of English should consider students' preferences and interests in selecting the activities

For students:

Students have an important role in the classroom. Thus, they have to:

- Identify their own intelligence
- Work on their weaker intelligence
- Exploit the different activities to develop their language
- Learn about how they can develop their abilities
- Do activities out of the classroom in order to develop their level of intelligence
- Apply the instructions and advices given by the teacher
- Do home exercises that can help them comprehend English language

- Be aware about the difficulties that they may face during their learning and think of the appropriate solutions
- Interact with the activities in order to enhance their intelligence and enrich their language

General conclusion

Teaching and learning are two significant processes that influence the development of the student. The main purpose of the present study concerns with the application of Gardner's theory to improve student's comprehension of foreign language. At the beginning of this thesis, we attempt to provide a general overview about the different theories of intelligence, and then we shed light on the theory of multiple intelligence, its criteria and major types which are suggested by Howard Gardner (1983). Additionally, we demonstrate and explain the relationship between multiple intelligences theory and learning styles. A second chapter highlights the different teaching strategies that EFL teachers may apply in their courses to address a variety of learners as well as to improve their comprehension of English language. Moreover, several activities under each category of intelligence were included. At the end of the second chapter, we demonstrate the benefits of implementing multiple intelligences theory in language teaching classroom. According to the last chapter which is related to the practical part of the present research, our hypothesis has confirmed through the outcomes of the different data tools.

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